Borderline personality disorder (BPD)

Borderline Personality Disorder: treatment and management

National Clinical Practice Guideline Number X

National Collaborating Centre for Mental Health
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1 Preface

This guideline has been developed to advise on the treatment and management of borderline personality disorder. The guideline recommendations have been developed by a multidisciplinary team of healthcare professionals, service users, a carer and guideline methodologists after careful consideration of the best available evidence. It is intended that the guideline will be useful to clinicians and service commissioners in providing and planning high-quality care for people with borderline personality disorder while also emphasising the importance of the experience of care for them and their carers (see Appendix 1 for more details on the scope of the guideline).

Although the evidence base is rapidly expanding, there are a number of major gaps, and future revisions of this guideline will incorporate new scientific evidence as it develops. The guideline makes a number of research recommendations specifically to address gaps in the evidence base. In the meantime, it is hoped that the guideline will assist clinicians, people with borderline personality disorder and their carers by identifying the merits of particular treatment approaches where the evidence from research and clinical experience exists.

1.1 National guideline

1.1.1 What are clinical practice guideline?

Clinical practice guidelines are 'systematically developed statements that assist clinicians and patients in making decisions about appropriate treatment for specific conditions' (Mann, 1996). They are derived from the best available research evidence, using predetermined and systematic methods to identify and evaluate the evidence relating to the specific condition in question. Where evidence is lacking, the guidelines incorporate statements and recommendations based upon the consensus statements developed by the Guideline Development Group (GDG).

Clinical guidelines are intended to improve the process and outcomes of healthcare in a number of different ways. They can:

- provide up-to-date evidence-based recommendations for the management of conditions and disorders by healthcare professionals
- be used as the basis to set standards to assess the practice of healthcare professionals
- form the basis for education and training of healthcare professionals

- assist service users and their carers in making informed decisions about their treatment and care
- improve communication between healthcare professionals, service users and their carers
- help identify priority areas for further research.

1.1.2 Uses and limitation of clinical guidelines

Guidelines are not a substitute for professional knowledge and clinical judgement. They can be limited in their usefulness and applicability by a number of different factors: the availability of high-quality research evidence, the quality of the methodology used in the development of the guideline, the generalisability of research findings and the uniqueness of individuals with borderline personality disorder.

Although the quality of research in this field is variable, the methodology used here reflects current international understanding on the appropriate practice for guideline development (AGREE: Appraisal of Guidelines for Research and Evaluation Instrument; www.agreecollaboration.org), ensuring the collection and selection of the best research evidence available and the systematic generation of treatment recommendations applicable to the majority of people with these disorders and situations. However, there will always be some people and situations for which clinical guideline recommendations are not readily applicable. This guideline does not, therefore, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual, in consultation with the person with borderline personality disorder or their carer.

In addition to the clinical evidence, cost-effectiveness information, where available, is taken into account in the generation of statements and recommendations of the clinical guidelines. While national guidelines are concerned with clinical and cost effectiveness, issues of affordability and implementation costs are to be determined by the National Health Service (NHS).

In using guidelines, it is important to remember that the absence of empirical evidence for the effectiveness of a particular intervention is not the same as evidence for ineffectiveness. In addition, of particular relevance in mental health, evidence-based treatments are often delivered within the context of an overall treatment programme including a range of activities, the purpose of which may be to help engage the person and to provide an appropriate context for the delivery of specific interventions. It is important to maintain and enhance the service context in which these interventions are delivered; otherwise the specific benefits of effective interventions will be lost. Indeed, the importance of organising care in order to support and encourage a good

therapeutic relationship is at times as important as the specific treatments offered.

1.1.3 Why develop national guidelines?

The National Institute for Health and Clinical Excellence (NICE) was established as a Special Health Authority for England and Wales in 1999, with a remit to provide a single source of authoritative and reliable guidance for patients, professionals and the public. NICE guidance aims to improve standards of care, to diminish unacceptable variations in the provision and quality of care across the NHS and to ensure that the health service is patient centred. All guidance is developed in a transparent and collaborative manner using the best available evidence and involving all relevant stakeholders.

NICE generates guidance in a number of different ways, three of which are relevant here. First, national guidance is produced by the Technology Appraisal Committee to give robust advice about a particular treatment, intervention, procedure or other health technology. Second, NICE commissions public health intervention guidance focused on types of activity (interventions) that help to reduce people's risk of developing a disease or condition or help to promote or maintain a healthy lifestyle. Third, NICE commissions the production of national clinical practice guidelines focused upon the overall treatment and management of a specific condition. To enable this latter development, NICE has established seven National Collaborating Centres in conjunction with a range of professional organisations involved in healthcare.

1.1.4 The National Collaborating Centre for Mental Health

This guideline has been commissioned by NICE and developed within the National Collaborating Centre for Mental Health (NCCMH). The NCCMH is a collaboration of the professional organisations involved in the field of mental health, national patient and carer organisations, a number of academic institutions and NICE. The NCCMH is funded by NICE and is led by a partnership between the Royal College of Psychiatrists' research unit (College Research and Training Unit) and the British Psychological Society's equivalent unit (Centre for Outcomes Research and Effectiveness).

1.1.5 From national guidelines to local protocols

Once a national guideline has been published and disseminated, local healthcare groups will be expected to produce a plan and identify resources for implementation, along with appropriate timetables. Subsequently, a multidisciplinary group involving commissioners of healthcare, primary care and specialist mental health professionals, service users and carers should undertake the translation of the implementation plan into local protocols taking into account both the recommendations set out in this guideline and the priorities set in the National Service Framework for Mental Health and related documentation. The nature and pace of the local plan will reflect local

healthcare needs and the nature of existing services; full implementation may take a considerable time, especially where substantial training needs are identified.

1.1.6 Auditing the implementation of guideline

This guideline identifies key areas of clinical practice and service delivery for local and national audit. Although the generation of audit standards is an important and necessary step in the implementation of this guidance, a more broadly based implementation strategy will be developed. Nevertheless, it should be noted that the Healthcare Commission will monitor the extent to which Primary Care Trusts, trusts responsible for mental health and social care and Health Authorities have implemented these guidelines.

1.2 The national borderline personality disorder guideline

1.2.1 Who has developed this guideline?

The GDG was convened by the NCCMH and supported by funding from NICE. The GDG included two service users and a carer, and professionals from psychiatry, clinical psychology, general practice, nursing, psychiatric pharmacy and child and adolescent mental health services.

Staff from the NCCMH provided leadership and support throughout the process of guideline development, undertaking systematic searches, information retrieval, appraisal and systematic review of the evidence. Members of the GDG received training in the process of guideline development from NCCMH staff, and the service users and carer received training and support from the NICE Patient and Public Involvement Programme. The NICE Guidelines Technical Adviser provided advice and assistance regarding aspects of the guideline development process.

All GDG members made formal declarations of interest at the outset, which were updated at every GDG meeting. The GDG met a total of seventeen times throughout the process of guideline development. It met as a whole, but key topics were led by a national expert in the relevant topic. The GDG was supported by the NCCMH technical team, with additional expert advice from special advisers where needed. The group oversaw the production and synthesis of research evidence before presentation. All statements and recommendations in this guideline have been generated and agreed by the whole GDG.

1.2.2 For whom is this guideline intended?

This guideline will be relevant for adults and young people with borderline personality disorder.

The guideline covers the care provided by primary, community, secondary, tertiary and other healthcare professionals who have direct contact with, and make decisions concerning the care of, adults and young people with borderline personality disorder.

The guideline will also be relevant to the work, but will not cover the practice, of those in:

- occupational health services
- social services
- forensic services
- the independent sector.

The experience of borderline personality disorder can affect the whole family and often the community. The guideline recognises the role of both in the treatment and support of people with borderline personality disorder.

1.2.3 Specific aims of this guideline

The guideline makes recommendations for the treatment and management of borderline personality disorder. It aims to:

- evaluate the role of specific psychosocial interventions in the treatment of borderline personality disorder
- evaluate the role of specific pharmacological interventions in the treatment of borderline personality disorder
- integrate the above to provide best-practice advice on the care of individuals with a diagnosis of borderline personality disorder
- promote the implementation of best clinical practice through the development of recommendations tailored to the requirements of the NHS in England and Wales.

1.2.4 The structure of this guideline

The guideline is divided into chapters, each covering a set of related topics. The first three chapters provide an introduction to guidelines, the topic of borderline personality disorder and to the methods used to develop guidelines. Chapters 4 to 9 provide the evidence that underpins the recommendations.

Each evidence chapter begins with a general introduction to the topic that sets the recommendations in context. Depending on the nature of the evidence, narrative reviews or meta-analyses were conducted, and the structure of the

chapters varies accordingly. Where appropriate, details about current practice, the evidence base and any research limitations are provided. Where meta-analyses were conducted, information is given about both the interventions included and the studies considered for review. Clinical summaries are then used to summarise the evidence presented. Finally, recommendations related to each topic are presented at the end of each chapter. On the CD-ROM, full details about the included studies can be found in Appendix 16. Where meta-analyses were conducted, the data are presented using forest plots in Appendix 17 (see Text Box 1 for details).

Text Box 1: **Appendices on CD-ROM**

Content	Appendix
Included/excluded studies	Appendix 16
Forest plots	Appendix 17
GRADE evidence profiles	Appendix 18

2 Borderline personality disorder

2.1 The disorder

The term borderline personality was identified in the United States by Adolph Stern in 1938 (most other personality disorders were first described in Europe). Stern described a group of patients who 'fit frankly neither into the psychotic nor into the psychoneurotic group' and introduced the term 'borderline' to describe what he observed because it 'bordered' on other conditions.

The term 'borderline personality organisation' was introduced by Otto Kernberg (1975) to refer to a consistent pattern of functioning and behaviour characterised by instability and reflecting a disturbed psychological self-organisation. Whatever the purported underlying psychological structures, the cluster of symptoms and behaviour associated with borderline personality were becoming more widely recognised, and included striking fluctuations from periods of confidence to times of absolute despair, markedly unstable self-image, rapid changes in mood, with fears of abandonment and rejection, and a strong tendency towards suicidal thinking and self-harm. Transient psychotic symptoms, including brief delusions and hallucinations, may also be present. The characteristics that now define borderline personality disorder were described by Gunderson and Kolb in 1978 and have since been incorporated into contemporary psychiatric classifications (see section 1.2).

Either as a result of its position on the 'border' of other conditions, or as a result of conceptual confusion, borderline personality disorder is often diagnostically comorbid with depression and anxiety, eating disorders such as bulimia, post-traumatic stress disorder (PTSD), substance misuse disorders and bipolar disorder (with which it is also sometimes clinically confused). An overlap with psychotic disorders can also be considerable. In extreme cases people can experience both visual and auditory hallucinations and clear delusions, but these are usually brief and linked to times of extreme emotional instability, and thereby can be distinguished from the core symptoms of schizophrenia and other related disorders (Links *et al.*, 1989).

The level of comorbidity is so great that it is uncommon to see an individual with 'pure' borderline personality disorder (Fyer *et al.*, 1988). And because of this considerable overlap with other disorders, many have suggested that borderline personality disorder should not be classified as a personality disorder; rather it should be classified with the mood disorders or with disorders of identity. Its association with past trauma and the manifest similarities with PTSD have led some to suggest that borderline personality disorder should be regarded as a form of delayed PTSD (Yen & Shea, 2001). Despite these concerns, borderline personality disorder is a more uniform

category than other personality disorders and is probably the most widely researched of the personality disorders.

It is important to note that borderline personality disorder should not be confused with so-called 'borderline intelligence' which is a wholly distinct and unrelated concept. Nevertheless, borderline personality characteristics (notably self-harm) are sometimes present in people with significant learning disabilities and can be prominent (Alexander & Cooray, 2003).

The course of borderline personality disorder is very variable. Most people show symptoms in late adolescence or early adult life, although some may not come to the attention of psychiatric services until much later. The outcome, at least in those who have received treatment or formal psychiatric assessment, is much better than was originally thought, with at least 50% of people improving sufficiently to not meet the criteria for borderline personality disorder 5-10 years after first diagnosis (Zanarini *et al.*, 2003). It is not known to what extent this is a consequence of treatment—evidence suggests that a significant proportion of improvement is spontaneous and accompanied by greater maturity and self-reflection.

A considerable number of people with borderline personality disorder have experienced some form of physical, emotional or sexual abuse in childhood (which has led to the view that borderline personality disorder is a delayed form of PTSD). While some people with borderline personality disorder come from stable and caring families, deprivation and instability in relationships are likely to promote borderline personality development and should be the focus of preventive strategies.

There is some controversy over the possible age of onset of borderline personality disorder. Many believe that it cannot, or perhaps should not, be diagnosed in people under 18 years of age while the personality is still forming (although diagnosis is possible in DSM-IV based on the same criteria as adults with additional caveats). Nevertheless, borderline symptoms and characteristics are often identifiable at a much earlier age, and sometimes early in adolescence (Bradley *et al.*, 2005). More attention is now being paid to its early manifestations in adolescent groups (see section 1.7).

Borderline personality disorder is associated with significant impairment, especially in relation to the capacity to sustain stable relationships as a result of personal and emotional instability. For many the severity of symptoms and behaviours that characterise borderline personality disorder correlate with the severity of personal, social and occupational impairments. However, this is not always the case, and some people with what appears to be, in other ways, marked borderline personality disorder may be able to function at very high levels in terms of their careers (Stone, 1993). Many, but not all, people with borderline personality disorder recurrently harm themselves, usually to

provide relief from intolerable distress, which for many can lead to significant physical impartment and disability. Moreover, suicide is still common in people with borderline personality disorder and may occur several years after the first presentation of symptoms (Paris & Zweig-Frank, 2001)

Although the prognosis of borderline personality disorder is relatively good, with most people not meeting the criteria for diagnosis after 5 years, it is important to note that a minority of people have persistent symptoms until late in life. Recurrent self-harm may occasionally be a problem in the elderly and the possibility that this may be due to borderline personality disorder should be considered in such circumstances. However, the prevalence of the condition in the elderly is much lower than in the young and one of the encouraging features about remission from the condition is that it is much less often followed by relapse than is the case with most other psychiatric disorders.

Comorbidities

Borderline personality disorder is a heterogeneous condition and its symptoms overlap considerably with depressive, schizophrenic, impulsive, dissociative and identity disorders. This overlap is also linked to comorbidity and in clinical practice it is sometimes difficult to determine if the presenting symptoms are those of borderline personality disorder or a related comorbid condition. The main differences between the core symptoms of borderline personality disorder and other conditions are that the symptoms of borderline personality disorder undergo greater fluctuation and variability: psychotic and paranoid symptoms are transient, depressive symptoms change dramatically over a short period, suicidal ideas may be intense and unbearable but only for a short time, and identity doubts and experiences are unstable. For each of the equivalent comorbid disorders there is much greater consistency of these symptoms.

2.2 Diagnosis

Borderline personality disorder is one of the most contentious of all the personality disorder subtypes. The reliability and validity of the diagnostic criteria have been criticised, and the utility of the construct itself has been called into question (Tyrer, 1999). Moreover, it is unclear how satisfactorily clinical or research diagnoses actually capture the experiences of people identified as personality disordered (Ramon *et al*., 2001). There is a large literature showing that borderline personality disorder overlaps considerably with other categories of personality disorder, with 'pure' borderline personality disorder only occurring in 3 to 10% of cases (Pfohl *et al*., 1986). The extent of overlap in research studies is particularly great with other so-called cluster B personality disorders (histrionic, narcissistic, and antisocial). In addition, there is considerable overlap between borderline personality disorder and mood and anxiety disorders (Tyrer *et al*., 1997; Zanarini *et al*., 1998).

This guideline uses the DSM-IV diagnostic criteria for borderline personality disorder, which are listed in Table 1. According to DSM-IV, the key features of borderline personality disorder are instability of interpersonal relationships, self-image and affect, combined with marked impulsivity beginning in early adulthood.

Table 1: DSM-IV criteria for borderline personality disorder (American Psychiatric Association, 1994)

A pervasive pattern of instability of interpersonal relationships, self-image and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Frantic efforts to avoid real or imagined abandonment. Note: Do not include suicidal or self-mutilating behaviour covered in Criterion 5.
2. A pattern of unstable and intense interpersonal relationships characterised by alternating between extremes of idealisation and devaluation.
3. Identity disturbance: markedly and persistently unstable self-image or sense of self.
4. Impulsivity in at least two areas that are potentially self-damaging (for example, spending, sex, substance abuse, reckless driving, binge eating). Note: Do not include suicidal or self-mutilating behaviour covered in Criterion 5.
5. Recurrent suicidal behaviour, gestures, or threats, or self-mutilating behaviour.
6. Affective instability due to a marked reactivity of mood (for example, intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days).
7. Chronic feelings of emptiness.
8. Inappropriate, intense anger or difficulty controlling anger (for example, frequent displays of temper, constant anger, recurrent physical fights).
9. Transient, stress-related paranoid ideation or severe dissociative symptoms.

A stand-alone category of borderline personality disorder does not exist within ICD-10, although there is an equivalent category of disorder termed 'emotionally unstable personality disorder, borderline type' (F 60.31), which is characterised by instability in emotions, self-image and relationships. The ICD-10 category does not include brief quasi-psychotic features (criterion 9 of the DSM-IV category). Comparisons of DSM and ICD criteria when applied to the same group of patients have shown that agreement between the two systems is limited. For example, in a study of 52 outpatients diagnosed using

both systems, less than a third of participants received the same primary personality disorder diagnosis (Zimmerman, 1994). Further modifications in the ICD and DSM are required to promote convergence between the two classifications.

The reliability of diagnostic assessment for personality disorder has been considerably improved by the introduction of standardised interview schedules. However, no single schedule has emerged as the 'gold standard' as each has its own set of advantages and disadvantages, with excessive length of interview time being a problem common to many of the schedules. (The main instruments available for assessing borderline personality disorder are listed in Table 2). When used by a properly trained rater, all of the schedules allow for a reliable diagnosis of borderline personality disorder to be made. Nevertheless, the level of agreement between interview schedules remains at best moderate (Zimmerman, 1994). In addition, clinical and research methods for diagnosing personality disorders diverge. Westen (1997) has found that although current instruments primarily rely on direct questions derived from DSM-IV, clinicians tend to find direct questions only marginally useful when assessing for the presence of personality disorders. Instead, clinicians are inclined to arrive at the diagnosis of personality disorder by listening to patients describe interpersonal interactions and observing their behaviour (Westen, 1997).

Table 2: Instruments used in the assessment of borderline personality disorder

Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV) (Zanarini, 1983)
Structured Clinical Interview for DSM-IV Personality Disorders (SCID-II) (First *et al.*, 1997)
Structured Interview for DSM-IV Personality (SIDP-IV) (Pfohl *et al*., 1997)
International Personality Disorder Examination (IPDE) (Loranger *et al*., 1996)
Personality Assessment Schedule (PAS) (Tyrer *et al*., 1979)
Standardised Assessment of Personality (SAP) (Mann *et al*., 1999)

Currently, outside of specialist treatment settings, there is still a heavy reliance on the diagnosis of borderline personality disorder being made following an unstructured clinical assessment. However, there are potential pitfalls in this approach. First, agreement among clinicians' diagnoses of personality disorder has been shown to be poor (Mellsop *et al*., 1982). Second, the presence of acute mental or physical illness can influence the assessment of personality. The presence of affective and anxiety disorders, psychosis, or the occurrence of an acute medical or surgical condition can all mimic symptoms of borderline personality disorder; a primary diagnosis of borderline personality disorder should only be made in the absence of mental or physical illness. It is also preferable for clinicians to obtain an informant account of the patient's personality, before definitively arriving at a diagnosis of borderline personality disorder.

A defining feature of all personality disorders is that they are stable over time. Indeed, ICD and DSM definitions of personality disorders describe them as having an enduring pattern of characteristics. However, until recently, there was a paucity of longitudinal research into personality disorders to support the notion of borderline personality disorder as a stable construct. Reviews of the subject published over the past 10 years hinted at considerable variation in stability estimates (Grilo *et al*., 2000). Recent prospective studies have shown that a significant number of individuals initially diagnosed with borderline personality disorder will not consistently remain at diagnostic threshold, even over comparatively short periods of time (Shea *et al*., 2002). It seems that while individual differences in personality disorder features appear to be relatively stable (Lenzenweger, 1999), the number of criteria present can fluctuate considerably over time. Given the many problems associated with the diagnosis of borderline personality disorder, it seems clear that reclassification is urgently needed and this is likely to happen with the publication of DSM-V (Tyrer, 1999).

2.3 Epidemiology

2.3.1 Prevalence

Although borderline personality disorder is a condition that is thought to occur globally (Pinto *et al*., 2000), there has been little epidemiological research into the disorder outside the Western world. Only three methologically rigorous surveys have examined the community prevalence of borderline personality disorder. Coid and colleagues (2006) reported that the weighted prevalence of borderline personality disorder in a random sample of 626 British householders was 0.7%. Samuels and colleagues (2002) found that in a random sample of 742 American householders the weighted prevalence of borderline personality disorder was 0.5%. Torgersen and colleagues (2001) reported a prevalence of 0.7% in a Norwegian survey of 2,053 community residents. Despite methodological differences between these studies, there is remarkable concordance in their prevalence estimates, the median prevalence of borderline personality disorder across the three studies being 0.7%. Only Torgersen and colleagues' 2001 study provides detailed information about the sociodemographic correlates of borderline personality disorder. In this study, there was a significant link between borderline personality disorder and younger age, living in a city centre and not living with a partner. Interestingly, the assumption that borderline personality disorder is over-represented among women was not supported by the data.

In primary care, the prevalence of borderline personality disorder ranges from 4 to 6% of primary attenders (Moran *et al*., 2000; Gross *et al*., 2002). Compared with those without personality disorder, people with borderline personality disorder are more likely to visit their GP frequently and to report psychosocial impairment. In spite of this, borderline personality disorder appears to be under-recognised by GPs (Moran *et al*., 2001).

In mental healthcare settings, the prevalence of all personality disorder subtypes is high, with many studies reporting a figure in excess of 50% of the sampled population. Borderline personality disorder is generally the most prevalent category of personality disorder in non-forensic mental healthcare settings. It is particularly common among people who are drug and/or alcohol dependent, those with an eating disorder (Zanarini *et al*., 1998), and also among people presenting with chronic self-harming behaviour (Linehan *et al*., 1991).

2.3.2 The impact of borderline personality disorder

Many people who have at one time been given the diagnosis of borderline personality disorder are able to move on to live a fulfilling life. However, during the course of the disorder people can have significant problems which mean that they require a large amount of support from services and from those around them. The functional impairment associated with borderline personality disorder appears to be a relatively enduring feature of the

disorder (Skodol *et al*., 2005). Studies of clinical populations have shown that people with borderline personality disorder experience significantly greater impairment in their work, social relationships and leisure compared with those with major depression (Skodol *et al*., 2002). However, studies of selected samples of people with borderline personality disorder have shown that symptomatic improvement can occur to the extent that a number of people will no longer meet the criteria for borderline personality disorder and that the prognosis may be better than has previously been recognised (Zanarini *et al*., 2003).

People with borderline personality disorder may engage in a variety of destructive and impulsive behaviours including self-harm, eating problems and excessive use of alcohol and illicit substances. Self-harming behaviour in borderline personality disorder is associated with a variety of different meanings for the individual, including relief from acute distress and feelings, such as emptiness and anger, and to reconnect with feelings after a period of dissociation. As a result of the frequency with which they self-harm, people with borderline personality disorder are at increased risk of suicide (Cheng *et al*., 1997), with 60 to 70% attempting suicide at some point in their life (Oldham, 2006). The rate of completed suicide in people with borderline personality disorder has been estimated to be approximately 10% (Oldham, 2006). A well-documented association exists between borderline personality disorder and depression (Skodol *et al*., 1999; Zanarini *et al*., 1998), and the combination of the two conditions has been shown to increase the number and seriousness of suicide attempts (Soloff *et al*., 2000).

Service users with borderline personality disorder often make extensive use of mental health resources. One American study has reported that compared with people with major depression, those with borderline personality disorder were significantly more likely to undergo a wide range of psychosocial and pharmacological interventions (Bender *et al*., 2001).

2.4 Aetiology

The causes of borderline personality disorder are complex and remain uncertain. No current model has been advanced that is able to integrate all of the available evidence. The following may all be contributing factors: genetics and constitutional vulnerabilities; neurophysiological and neurobiological dysfunctions of emotional regulation and stress; psychosocial histories of childhood maltreatment and abuse; and disorganisation of aspects of the affiliative behavioural system, most particularly the attachment system

2.4.1 Genetics

Twin studies suggest that the heritability factor for borderline personality disorder is 0.69 (Torgersen *et al*., 2000), but it is likely that traits related to impulsive aggression and mood dysregulation, rather than borderline personality disorder itself, are transmitted in families. Current evidence

suggests that the genetic influence on personality disorder generally, not specifically borderline personality disorder, acts both individually and in combination with anomalous environmental factors (White *et al*., 2003; Caspi *et al*., 2002; Caspi *et al*., 2003).

2.4.2 Neurotransmitters

Regulation of emotional states is a core problem in borderline personality disorder. Neurotransmitters have been implicated in the regulation of impulses, aggression and affect. Serotonin has been the most extensively studied of these, and it has been shown that there is an inverse relationship between serotonin levels and levels of aggression. Reduced serotonergic activity may inhibit a person's ability to modulate or control destructive urges, although the causal pathway remains unclear. Reduced 5-HT 1A receptor-mediated responses in women with borderline personality disorder and a history of prolonged child abuse have been noted (Rinne *et al*., 2000), suggesting the possibility that environmental factors might mediate the link between 5-HT and aggression.

Limited evidence exists for the role of catecholamines (norepinephrine and dopamine neurotransmitters) in the dysregulation of affect. People with borderline personality disorder have lower plasma-free methoxyhydroxyphenylglycol (a metabolite of noradrenaline), compared with controls without borderline personality disorder, but the finding disappears when aggression scores are controlled (Coccaro *et al*., 2003). The effects produced on administering amphetamines to people with borderline personality disorder suggest that such people are uniquely sensitive and demonstrate greater behavioural sensitivity than control subjects (Schulz *et al*., 1985).

Other neurotransmitters and neuromodulators implicated in the phenomenology of borderline personality disorder include acetylcholine (Steinberg *et al*., 1997), vasopressin (Coccaro *et al*., 1998), cholesterol (Atmaca *et al*., 2002) and fatty acids (Zanarini & Frankenburg, 2003), along with the hypothalamic-pituitary adrenal axis (Rinne, *et al*., 2002).

2.4.3 Neurobiology

Evidence of structural and functional deficit in brain areas central to affect regulation, attention and self-control, and executive function have been described in borderline personality disorder. Areas include the amygdala (Rusch *et al*.. 2003), hippocampus (Tebartz van Elst *et al*., 2003) and orbitofrontal regions (Stein *et al*., 1993; Kunert *et al*., 2003; De La Fuente *et al*., 1997). Most studies are performed without emotional stimulation, however recent studies under conditions of emotional challenge suggest similar findings. People with borderline personality disorder show increased activity in the dorsolateral prefrontal cortex and in the cuneus, and a reduction in activity in the right anterior cingulate (Schmahl *et al*., 2003). Greater activation

of the amygdale while viewing emotionally aversive images (Herpertz *et al*., 2001) or emotional faces (Donegan *et al*., 2003) has also been described.

2.4.4 Psychosocial factors

Family studies have identified a number of factors that may be important in the development of borderline personality disorder, for example a history of mood disorders and substance misuse in other family members. Recent evidence also suggests that neglect, including supervision neglect, and emotional under-involvement by caretakers are important. Prospective studies in children have shown that parental emotional under-involvement contributes to a child's difficulties in socialising and perhaps to a risk for suicide attempts (Johnson *et al*., 2002). People with borderline personality disorder (at least while symptomatic), significantly more often than people without the disorder, see their mother as distant or overprotective, and their relationship with her conflictual, while the father is perceived as less involved and more distant. This suggests that problems with both parents are more likely to be the common pathogenic influence in this group rather than problems with either parent alone. While these findings should be replicated with those who have recovered from borderline personality disorder, the general point about biparental difficulties being important in the genesis of borderline personality disorder is given further support from studies of abuse.

Physical, sexual and emotional abuse can all occur in a family context and high rates are reported in people with borderline personality disorder (Johnson *et al*., 1999). Zanarini reported that 84% of people with borderline personality disorder retrospectively described experience of biparental neglect and emotional abuse before the age of 18, with emotional denial of their experiences by their caregivers as a predictor of borderline personality disorder (Zanarini *et al*., 2000). This suggests that these parents were unable to take the experience of the child into account in the context of family interactions. Abuse alone is neither necessary nor sufficient for the development of borderline personality disorder and predisposing factors and contextual features of the parent-child relationship are likely to be mediating factors in its development. Caregiver response to the abuse may be more important than the abuse itself in long-term outcomes (Horwitz *et al*., 2001). A family environment that discourages coherent discourse about a child's perspective on the world is unlikely to facilitate successful adjustment following trauma. Thus the critical factor is the family environment. Studies that have examined the family context of childhood trauma in borderline personality disorder tend to see the unstable, non-nurturing family environment as the key social mediator of abuse (Bradley *et al*., 2005) and personality dysfunction (Zweig-Frank & Paris, 1991).

Few of the studies point to how the features of parenting and family environment create a vulnerability for borderline personality disorder, but

they are likely to be part of a disrupted attachment or affiliative system that affects the development of social cognition, which is considered to be impaired in borderline personality disorder (Fonagy & Bateman, 2007).

2.4.5 Attachment process

The literature on attachment suggests that individuals are made more vulnerable to the highly stressful psychosocial experiences discussed above by early inadequate mirroring and disorganised attachment. This is likely to be associated with a more general failure in families of consideration of a child's perspective, through neglect, rejection, excessive control, unsupportive relationships, incoherence and confusion. While the relationship of diagnosis of borderline personality disorder and specific attachment category is not obvious, borderline personality disorder is strongly associated with insecure attachment (6-8% of patients with borderline personality disorder are coded as secure) and there are indications of disorganisation (unresolved attachment and inability to classify category of attachment) in interviews, and fearful avoidant and preoccupied attachment in questionnaire studies (Levy, 2005). Early attachment insecurity is a relatively stable characteristic of any individual, particularly in conjunction with subsequent negative life events (94%) (Hamilton, 2000; Waters *et al*., 2000; Weinfield *et al*., 2000). Given evidence of the continuity of attachment from early childhood, at least in adverse environments, and the two longitudinal studies following children from infancy to early adulthood (which reported associations between insecure attachment in early adulthood and borderline personality disorder symptoms [Lyons-Ruth *et al*., 2005;]), childhood attachment may indeed be an important factor in the development of borderline personality disorder. Fonagy and colleagues (2003) suggest that adverse effects arising from insecure and/or disorganised attachment relationships, which may have been disrupted for many reasons, are mediated via a failure in development of mentalising capacity – a social cognitive capacity relating to understanding and interpreting one's own and others' actions as meaningful on the basis of formulating what is going on in one's own and the other person's mind.

This formulation overlaps with the importance of the invalidating family environment suggested by Linehan (1993) as a factor in the genesis of borderline personality disorder and further developed by Fruzzetti and colleagues (2005; 2003). Fruzzetti and colleagues report that parental invalidation, in part defined as the undermining of self-perceptions of internal states and therefore anti-mentalising, is not only associated with the young person's reports of family distress, and his or her own distress and psychological problems, but also with aspects of social cognition, namely the ability to identify and label emotion in him or herself and others. Along with other aspects contributing to the complex interaction described as invalidating, there is a systematic undermining of a person's experience of his or her own mind by that that of another. There is a failure to encourage the person to discriminate between his or her feelings and experiences and those

of the caregiver, thereby undermining the development of a robust mentalising capacity.

2.4.6 Conclusion

Individuals constitutionally vulnerable and/or exposed to influences that undermine the development of social cognitive capacities, such as neglect in early relationships, develop with an impaired ability both to represent and to modulate affect and effortfully control attentional capacity. These factors, with or without further trauma, exemplified by severe neglect, abuse and other forms of maltreatment, may cause changes in the neural mechanisms of arousal and lead to structural and functional changes in the developing brain. Unless adequate remedial measures are taken, borderline personality may develop.

2.5 Treatment and management

2.5.1 Current configuration of services

General adult mental health services in England and Wales offer varying levels of service provision for people with personality disorder. England is the only country in the world to have a health service in which personality disorder services are considered to be an integral component part. As the decision to expand services to include the treatment of personality disorder was only made in 2003 the development of these services remains patchy and, in some areas, rudimentary. Although these services are for personality disorder generally, most users seeking services are likely to have a diagnosis of borderline personality disorder and this is anticipated in the service provision.

The programme in England includes the development of innovative psychosocial approaches to treatment, national service pilot projects and a workforce and training programme. The long-term plan is to develop capacity for specific personality services in all parts of the country.

2.5.2 Pharmacological treatment

Comorbid mental illness, particularly depression, bipolar disorder, PTSD and psychosis are more common in people with borderline personality disorder than in the general population; lifetime prevalence of at least one comorbid mental illness approaches 100% for this group (Bender *et al*., 2001). In addition, many of the trait- and state-related symptoms of borderline personality disorder (including affective instability, transient stress-related psychotic symptoms, suicidal and self-harming behaviours, and impulsivity) are similar in quality to those of many types of mental illness and could intuitively be expected to respond to drug treatment.

The use of antipsychotics, antidepressants and mood stabilisers is common in clinical practice. One large study of prescribing practice in the US found that

10% of people with borderline personality disorder had been prescribed an antipsychotic at some point during their contact with services, 27% a mood stabiliser, 35% an anxiolytic and 61% an antidepressant (Bender *et al*., 2001); the lifetime prescribing rate for antidepressants was double that for patients with major depression. There are no published UK-based studies of prescribing practice, but given that people with borderline personality disorder tend to seek treatment, there is no reason to suspect that the prevalence of prescribing of psychotropics differs from that in the US. Such treatment is often initiated during periods of crisis and the placebo response rate in this context is high; the crisis is usually time limited and can be expected to resolve itself irrespective of drug treatment.

Often the prescribed drug is continued in an attempt to protect against further transient, stress-related symptoms and when these occur, another drug from a different class is likely to be added (Tyrer, 2002; Paris, 2002; Sanderson *et al*., 2002). A longitudinal study found that 75% of participants with borderline personality disorder were prescribed combinations of drugs at some point (Zanarini *et al*., 2003). Those who have repeated crisis admissions to hospital may be prescribed multiple psychotropic drugs in combination with a range of medicines for minor physical complaints. Adherence to medication in the medium term is often poor and the frequency with which prescriptions are altered makes it difficult to see which drug, if any, has helped and how.

The psychotropic drugs that are commonly prescribed are all associated with clinically significant side effects. For example, antipsychotic drugs may lead to considerable weight gain (Theisen *et al*., 2001), both compounding problems with self-esteem and increasing the risk of serious physical pathology such as diabetes and cardiovascular disease (Mackin *et al*., 2005). Lithium can cause hypothyroidism and is a very toxic drug in overdose; valproate can lead to weight gain and is a major human teratogen (Wyszynski *et al*., 2005); and selective serotonin re-uptake inhibitors (SSRIs) can cause unpleasant discontinuation symptoms if they are not taken consistently (Fava, 2006). The balance of risks and benefits of psychotropic drugs is generally even more unfavourable in adolescents and young adults: the risks associated with SSRIs, which have been associated with treatment-emergent suicidal ideation in young people (Hammad *et al*., 2006), may outweigh the benefits (Whittington *et al*., 2004), and valproate may increase the risk of young women developing polycystic ovaries (NICE, 2006).

No psychotropic drug is specifically licensed for the management of borderline personality disorder, although some have broad product licences that cover individual symptoms or symptom clusters. Where there is a diagnosis of comorbid depression, psychosis or bipolar disorder, the use of antidepressants, antipsychotics and mood stabilisers respectively would be within their licensed indications. Where there are depressive or psychotic symptoms, or affective instability, that fall short of diagnostic criteria for

mental illness, the use of psychotropic drugs is largely unlicensed or 'off-label'. Prescribing off-label places additional responsibilities on the prescriber and may increase liability if there are adverse effects (Baldwin, 2006). As a minimum, off-label prescribing should be consistent with a respected body of medical opinion (Bolam test) and be able to withstand logical analysis (Bolitho, 1997). The Royal College of Psychiatrists recommends that the patient be informed that the drug prescribed is not licensed for the indication it is being used for, and the reason for use and potential side effects fully explained (Baldwin, 2006).

2.5.3 Psychological therapies

The history of specific psychological interventions designed to help people with borderline personality disorder is intertwined with changing conceptions of the nature of the disorder itself. The emergent psychoanalytic concept of 'borderline personality organisation', intermediate between neurosis and psychosis (Stern, 1938; Kernberg, 1967), was influential in the introduction of borderline personality disorder into DSM-III in 1980, but was not an approach taken by ICD-10. The borderline personality disorder concept was therefore first adopted in the US and had no wide currency in the UK before the mid-1980s. At this time, although a range of psychodynamic, experiential, behavioural and cognitive behavioural therapies were available within NHS mental health services, they were very patchy and in short supply. Cognitive therapy for depression was only in the early stages of being adopted. Many people who would now be described in terms of having borderline personality disorder presented with depression, anxiety and interpersonal difficulties and were offered these therapies. This spurred innovation as practitioners began to modify these techniques in order to help people with more complex psychological difficulties, and during the 1980s and 1990s systematic methods were developed specifically for this client group.

Specific therapies for borderline personality disorder therefore developed through modification of existing techniques. In both the US and UK, psychoanalytic methods were adapted to provide more structure, containment (for example, explicit contracts between therapist and client) and responsiveness; for example, the classical technique of the 'blank screen' of therapist neutrality and abstinence was modified so that the therapist became more active. Derived (but distinct) from classical analytic technique, an approach based on developmental attachment theory led to a specific therapy emphasising mentalisation. A behavioural approach to deliberate self-harm and suicidality that incorporated skills training in emotion regulation and validation of client experience developed into dialectical behaviour therapy (DBT), a specific and complex intervention for borderline personality disorder *per se*. Cognitive analytic therapy (CAT), which had from its outset explicitly addressed interpersonal difficulties, gained greater application to borderline problems through theoretical and practical attention to partially dissociated

states of mind and their functional analysis. Cognitive therapy for depression was also adapted to personality disorders. For example, one method paid greater attention to the early maladaptive schemas underpinning cognitive biases. Adaptations have also been made in cognitive behavioural therapy (CBT) and interpersonal therapy (IPT). Some of these adapted therapies are offered as complex interventions (for example, mentalisation-based partial hospitalisation and dialectical behaviour therapy [DBT]), others are provided as more straightforward time-limited one-to-one or group treatments (for example, CBT or CAT).

Despite the developments of these specific psychological therapies (see Chapter 5), most 'talking treatments' offered to people with borderline personality disorder in the NHS are generic or eclectic and do not use a specific method. Clinical psychologists are trained to work flexibly around a range of assessment, treatment and rehabilitation needs, through psychological formulation, treatment planning, staff supervision and environmental change and may not train in one specific approach. Even where a specific approach is used, it may not be available in the optimum format, that is, the one that was tested in clinical trials. A good example is DBT which is a complex intervention delivered by a team of therapists that includes one-to-one therapy sessions, psychoeducational groups and telephone support. Although NHS therapists may have trained in the method, it has proved organisationally difficult to ensure all elements of the DBT approach are available in practice.

Psychological and psychosocial interventions are delivered in a variety of ways and settings within the NHS by clinical psychologists and other staff trained in psychological therapies, such as psychiatrists, nurses, social workers and other mental health therapists. Individual and group therapies are available in psychology and psychotherapy departments, within day services and community mental health services. Day services have been established with specific expertise in programmes for this client group, some based on therapeutic community principles, but these are not universally available. In 2005, 11 pilot services were funded to demonstrate a range of service possibilities. All of these specified some element of psychological care, although few were based on provision of specific and formal psychological therapies (Crawford *et al*., 2007).

In practice, the limiting factor in providing access to psychological therapies is the very small proportion of NHS staff trained to deliver these to a competent standard. A further challenge is how to embed psychological treatment into the overall care programme in health and social care, which may involve liaison among staff from many agencies who do not share a psychological understanding of the nature of the disorder. To address this, a psychological therapies framework can be applied to the care programme through multidisciplinary team-based training (Sampson *et al*., 2006; Kerr *et al*., 2007).

Together with greater understanding of the developmental origins and psychological mechanisms underpinning this disorder and epidemiological evidence on its natural history, the emergence of at least partially effective psychological treatments has challenged traditional views of borderline personality disorder as immutable. The therapeutic nihilism so characteristic of earlier decades is giving way to a belief that psychological therapies have an important role to play in the overcall care, treatment and recovery of people with these disorders.

2.5.4 Therapeutic communities

A therapeutic community is a consciously designed social environment and programme within a residential or day unit in which the social and group process is harnessed with therapeutic intent. In the therapeutic community the community itself is the primary therapeutic instrument (Kennard & Haigh, in press).

In England therapeutic communities first emerged in a form that we would recognise today during the Second World War, at Northfield Military Hospital in Birmingham and Mill Hill in London. The leaders of the Northfield 'experiments' were psychoanalysts who were later involved in treatment programmes at the Tavistock Clinic and the Cassel Hospital, and had considerable international influence on psychoanalysis and group therapy. The Mill Hill programme, for battle-shocked soldiers, later led to the founding of Henderson Hospital and a worldwide 'social psychiatry' movement, which brought considerably more psychological and less custodial treatment of patients of mental hospitals throughout the Western world.

Different forms of therapeutic community have evolved from these origins, one clear strand of which is for specific treatment of people with personality disorders. The therapeutic communities for personality disorder range from full-time residential hospitals to units that operate for a few hours on one day each week. Between these extremes, communities exist that are weekly residential, full-time day units (5 days per week), and between 1 and 4 days per week. Most operate a rolling programme lasting a year or more, and they are generally seen in three clusters of 'dose intensity': residential, 3 or more days per week, and fewer than 3 days per week.

Although, as stated above, the community itself is the primary therapeutic agent, programmes include a range of different therapies, usually held in groups. These can include small analytic groups, median analytic groups, psychodrama, transactional analysis, art therapy, creative arts therapies, cognitive therapy, social problem solving, psychoeducation and gestalt. No community would ever have all of these, but all would have more than one. In addition to specific therapies, there are always community meetings (which

normally have a set agenda), activities such as meal preparation and household maintenance, playful activities such as games, and the opportunity for members or staff to call a crisis meeting. There is a variable proportion of the programme available for informal time together and extramural activities. Non-residential programmes also have provision for members supporting each other out of hours. Everything that happens in all parts of the programme may then be discussed or otherwise used as part of the therapy.

Therapeutic communities generally use a complex admission procedure, rather than straightforward inclusion and exclusion criteria. This results in diagnostic heterogeneity, and none claims to treat borderline personality disorder exclusively; however recent work has demonstrated that the admission characteristics of members show high levels of personality morbidity, with most exhibiting sufficient features to diagnose more than three personality disorders, often in more than one cluster. The admission phase includes engagement, assessment, preparation and selection processes before the definitive therapy programme begins and is a model of stepped care, where the service users decide when and whether to proceed to the next stage of the programme. A voting procedure by the existing members of the community, at a specifically convened case conference or admissions panel, is normally used to admit new members. Programmes and their various stages are time limited, and none of the therapeutic communities specifically for personality disorder is open ended. Some have formal or informal, staff or service-user led post-therapy programmes.

Staff teams in therapeutic communities are always multidisciplinary, drawn mostly from the mental health core professions, including direct psychiatric input and specialist psychotherapists. They also frequently employ 'social therapists', who are untrained staff with suitable personal characteristics, and ex-service users. The role of staff is less obvious than in single therapies, and can often cover a wide range of activities as part of the sociotherapy. However, clear structures – such as job descriptions defining their different responsibilities, mutually agreed processes for dealing with a range of day-to-day problems and rigorous supervisory arrangements – always underpin the various staff roles.

There are several theoretical models on which the clinical practice is based, drawing on systemic, psychodynamic, group analytic, cognitive-behavioural and humanistic traditions. The original therapeutic community model at Henderson Hospital was extensively researched in the 1950s using anthropological methods and four predominant 'themes' were identified: democratisation, permissiveness, reality confrontation and communalism. More contemporary theory emphasises: the role of attachment; the 'culture of enquiry' within which all behaviours, thinking and emotions can be scrutinised; the network of supportive and challenging relationships between members; and the empowering potential of members being made responsible

for themselves and each other. This has been synthesised into a simple developmental model of emotional development, where the task of the therapeutic community is to recreate a network of close relationships, much like a family, in which deeply ingrained behavioural patterns, negative cognitions and adverse emotions can be re-learned.

For personality disorders, the non-residential communities are mostly within the NHS mainstream mental health services, and the residential units are in both NHS and tier 3 organisations. Standards have been devised to ensure uniformity and quality of practice, and all NHS therapeutic communities for personality disorder participate in an annual audit cycle of self-review, peer review and action planning, against these standards. The Department of Health in England has supported the recent development of 'NHS commissioning standards' upon which accreditation for therapeutic communities will be based.

2.5.5 Other therapies

This section includes various modalities that are not part of the general psychological treatments for borderline personality disorder. Group analytic psychotherapy, art and creative therapies, humanistic and integrative psychotherapy and systemic therapy can all be routinely employed in work with people with personality disorder, either as stand-alone therapies for less complex cases or as part of multidisciplinary packages of care – or long-term pathways – for those with more intractable or severe conditions.

Group analytic psychotherapy

This is also often known simply as 'group therapy'. It is characterised by non-directive groups (without pre-determined agendas), in which the relationships between the members, and the members and the therapist ('conductor'), comprise the main therapeutic tool. Such groups generally, and deliberately, build a strong *esprit de corps* and are both strongly supportive and deeply challenging. The membership of a group is fairly constant, with each member staying typically for 2–5 years. Suitably qualified group therapists (to United Kingdom Council for Psychotherapy [UKCP] standards) undergo at least 4 years' training, have regular clinical supervision and undertake continuing professional development (CPD) activities.

The group process can help prevent hazardous therapeutic relationships developing with a therapist, as can happen in individual therapy with people with severe personality disorders. They can actively address relationship difficulties that are manifest 'live' in the group, and they can avoid difficult dependency by helping participants to take responsibility for themselves by first sharing responsibility for each other and later learning how to ask for help for themselves, in an adaptive way.

Disadvantages include difficulting in initiating participation because of the fear of personal exposure; problems of finding a regular suitable meeting space; and issues of confidentiality.

Art and creative therapies

There are two major schools of art therapy, analytic and creative. Both involve therapists who, to be registered, have undertaken well-regulated and intensive training. The analytic type uses what is produced in therapy as a route to understanding parts of a patient's inner world that are inaccessible by normal verbal techniques. Traditionally, art therapy is thought of as working with primitive emotional material that is 'pre-verbal' in nature, and thus made available to exploration and rational thought. The nature of the therapist's work can thus be similar to the interpretations of psychoanalysis, or less interpretative and more supportive, to enable patients to understand what they want to understand from the work. For people with more severe borderline personality disorder, it is generally accepted that 'plunging interpretations' without sufficient support are unlikely to be helpful (Meares & Hobson, 1977).

Creative arts therapies are more concerned with the process of creating something, and the emotional response to this and/or the group dynamics of this. This can be very active (involving the physical characteristics of the art work and movement), playful, symbolic, metaphorical or lead directly to emotions that need to be understood. Such understanding may be achieved through subsequent discussion, and the use of the art materials when helpful.

Art therapy is normally undertaken weekly, and a session lasts 1.5–2 hours. It can be in groups (typically four to six members) or individually.

Humanistic and integrative psychotherapies (HIPS)

These are therapies based on a variety of theoretical models which evolved in the mid-20th century as alternatives to the dominant model of psychoanalysis. There is a significant overlap with the term 'action therapies', which has increasing currency. They include psychodrama which is group-based and aims to understand particularly difficult past emotional episodes , and link them to current problems and difficulties; transactional analysis which is based on parent, adult and child 'ego states' (a person's beliefs, mannerisms and emotional responses), and can be undertaken either individually or in groups; gestalt therapy which aims to facilitate awareness and help achieve self-regulation and self-actualisation (therapeutic techniques include empty-chair work, role reversal and enactments); and person-centred therapy developed from Carl Rogers' humanistic approach.

Systemic therapy

This is most commonly used for work with families, where the index patient is a child. It uses a format with long but widely-spaced sessions, for example 2 hours every 6 weeks. It requires a supervising team who watch the session

live or who listen to it with audio equipment, and who discuss hypotheses of how the system is working and actions to bring about change. The interventions are generally 'structural' or 'strategic', such as circular questioning (for example, 'what would your brother think about your mother's answer to that question?'), reframing and mapping the system with genograms (a pictorial representation of a patient's family relationships).

In cases of personality disorder where the dynamics within a whole family may be important in maintaining or exacerbating the presenting range of problems, and the family members are willing to participate, systemic therapy can be effective at starting new ways of communicating within a family that may be self-sustaining.

Nidotherapy

Nidotherapy, from the Latin, *nidus*, meaning nest (Tyrer *et al*., 2003), is distinct from psychotherapeutic approaches in that the emphasis is on making environmental changes to create a better fit between the person and their environment. In this sense it is not specifically a treatment, but it does have a therapeutic aim of improving quality of life, through acceptance of a level of handicap and its environmental accommodation.

2.6 Multi-agency perspective

2.6.1 The NHS and personality disorder

The perceived enduring and chronic nature of personality disorder poses a challenge to a healthcare system that historically and to a large extent still is strongly influenced by the biological (illness) paradigm of mental health. Essentially, mental health services within the NHS have been configured in such a way as to 'treat' people during the acute phases of their illness. As personality disorders by their definition do not have 'acute' phases some have argued that a personality disorder should not be the responsibility of the NHS (see Kendell [2002] for further discussion).

Given the confusion that surrounds the nature of personality disorder, it is not surprising that this has impacted on NHS care for people with this diagnosis. Until recently, personality disorder services in the NHS had been diverse, spasmodic and inconsistent (NIMHE, 2003a).

2.6.2 The National Service Framework for Mental Health

In line with the National Service Framework (NSF) for Mental Health (DH, 1999a) the National Institute for Mental Health in England (NIMHE) produced policy implementation guidance for the development of services for people with personality disorder (NIMHE, 2003a). The main purpose of this document was:

- 'to assist people with personality disorder who experience significant distress or difficulty to access appropriate clinical care and management from specialist mental health services
- to ensure that offenders with a personality disorder receive appropriate care from forensic services and interventions designed both to provide treatment and to address their offending behaviour
- to establish the necessary education and training to equip mental health practitioners to provide effective assessment and management.' (NIMHE, 2003a).

The Personality Disorder Capabilities Framework (NIMHE, 2003b) soon followed. This document set out a framework to support the development of the skills that would enable practitioners to work more effectively with people with personality disorders. It also aimed to provide a framework to support local and regional partners to deliver appropriate education and training (NIMHE, 2003b). This document did not focus solely on the needs of NHS organisations; it had a wider remit to include all agencies that had contact with people who met the diagnosis. These two documents, along with investments in pilot personality disorder services and training initiatives, have signalled a significant change in the NHS's perspective on personality disorder and have led to its commitment to enhance and improve its service.

2.6.3 Social services perspective

The role of social services, in providing care and support to people with mental health problems, covers a wide range of people, from those with mild mental health problems to people with severe and enduring mental disorders (DH, 1998b). Historically, care provided by social services is determined by the person's social need and is less influenced by diagnosis and the biological paradigm than the NHS. After the 1998 White Paper on modernising social services (DH, 1998b), which aimed to set new standards of performance and to allow the NHS and social services to have closer partnerships in meeting the standards set down in the NSF for mental health, local implementation teams were set up across the country. With respect to personality disorder, their role is to review the progress that local mental health and social care services are making towards implementing the NSF for Mental Health targets for personality disorder.

2.6.4 Criminal justice system

In law, personality disorder is generally seen as distinct from 'serious mental illness' as it is not considered to reduce the person's capacity to make decisions (Hart, 2001). Instead, it is thought of as an aggravating condition (Hart, 2001). The legal position undoubtedly influences the criminal justice system's perspective on personality disorder and goes some way to explain why most people with personality disorder would generally find themselves in the criminal justice system as opposed to forensic mental health services. It is not uncommon within forensic mental health services for regional secure

units to actively exclude patients with a primary diagnosis of personality disorder, because they do not consider this to be their core business (NIMHE, 2003). When services are offered, they tend to be spasmodic and idiosyncratic.

In March 1999, a report commissioned by the Department of Health into the future organisation of prison healthcare (DH, 1999b) proposed that people in prison should have access to the same quality and range of services (including mental health) as the general public (DH, 1999b). In the same year the NSF called for closer partnerships between prisons and the NHS at local, regional and national levels (DH, 1999a). The emphasis was on a move towards the NHS taking more responsibility for providing mental healthcare in prisons and the establishment of formal partnerships.

In July 1998, the then Secretary of State announced a review of the 1983 Mental Health Act, triggered by concerns that current legislation did not support a modern mental health service. These concerns were reiterated in the NSF for mental health as 'neither mental health nor criminal justice law currently provides a robust way of managing the small number of dangerous people with severe personality disorder' (DH, 1999a).

2.7 Young people

Diagnosing borderline personality disorder in young people under 18 has often caused controversy. Although borderline personality disorder affects between 0.9 to 3% of the community population of under 18 year olds (Chanen *et al.*, 2007), there are certain caveats in DSM-IV and ICD-10 when making the diagnosis in young people. However young people with borderline personality disorder often present to services in seek of help (Chanen *et al.*, 2007). As interventions for young people with borderline personality disorder will usually be provided by specialist child and adolescent mental health services, whose structure is different from adult mental health services, a full discussion of the issues relating to young people with borderline personality disorder can be found in Chapter 9.

2.8 The experience of service users and carers

There are particular issues for people with borderline personality disorder regarding the diagnosis, the label and associated stigma, which can have an impact on people accessing services and receiving the appropriate treatment. These issues are fully explored in Chapter 4, which comprises personal accounts from people with personality disorder and their carers, and a review of the literature of service user and carer experience.

Carers of people may also feel unsupported in their role by healthcare professionals and excluded from the service user's treatment and care. The issues surrounding this are also further explored in Chapter 4. Although there are debates around the usefulness and applicability of the word 'carer',

this guideline uses that term to apply to all people who have regular close contact with the person and are involved in their care.

2.9 Economic impact

The prominent position of mental disorders as a cause of disease burden is a widely quoted result of the Global Burden of Disease (GBD) study (Murray & Lopez, 1996). Mental disorders are one of the leading causes of disability and disease burden in the world, but no specific reference is made to the burden caused by borderline personality disorder or personality disorders in general.

The annual cost of personality disorders to the NHS (Smith, 1995) was estimated at over £61 million in 1986. More recently Rendu and colleagues (2002) assessed the costs of personality disorders among general practice attendees in the UK. The mean total costs (health and non-health related) for patients with personality disorder was £3,094 compared with £1,633 for those without personality disorder (1998/99 price levels). This study also highlighted the considerable burden on non-healthcare providers and the wider economy, the costs of which accounted for over 80% of the total costs assessed. Chiesa and colleagues (2002) have also concluded that individuals with a personality disorder are high users of healthcare resources, and in particular of psychiatric, ambulance and emergency services.

The total economic impact of borderline personality disorder remains largely unknown. The significant overlap between borderline personality disorder and other mental disorders, the high prevalence of comorbidities, and the high incidence of misdiagnosis have made precise estimates difficult to establish. In addition, cost estimates from follow-up studies, where available, vary widely because of differences in methodology, ascertainment, method of obtaining follow-up information, duration of study and length of follow-up.

A defining characteristic of the disorder is high suicidality and frequent parasuicidal acts, affecting up to 84% of patients with borderline personality disorder, and one that probably makes the greatest demand on mental health resources (Black, 2006). Comorbidities in people with borderline personality disorder present special difficulties, as do high dropout and failure rates in outpatient treatments, which people with borderline personality disorder frequently seek. These difficulties often lead to inpatient treatment services, which are costly (Janowsky, 1999). Moreover, secondary difficulties, such as involvement with social service agencies, employment and housing problems, and involvement with the legal system, incur significant costs that have not been estimated. There is a need for reliable cost estimates in order to analyse the direct and indirect costs surrounding borderline personality disorder and compare them with those of other personality disorders.

In conclusion, borderline personality disorder presents an excessive health and economic burden to people with the condition, families, healthcare

workers, hospitals and society as a whole. Its effects extend far beyond the healthcare sector to quality of life and the ability to function socially. Efficient use of available healthcare resources is required to maximise the health benefit for patients with borderline personality disorder and, at the same time, reduce the financial and psychological burden to society.

3 Methods used to develop this guideline

3.1 Overview

The development of this guideline drew upon methods outlined by NICE (*The Guidelines Manual*[1] [NICE, 2006]). A team of health professionals, lay representatives and technical experts known as the Guideline Development Group (GDG), with support from the NCCMH staff, undertook the development of a patient centred, evidence-based guideline. There are six basic steps in the process of developing a guideline:

- Define the scope, which sets the parameters of the guideline and provides a focus and steer for the development work.
- Define clinical questions considered important for practitioners and service users.
- Develop criteria for evidence searching and search for evidence.
- Design validated protocols for systematic review and apply to evidence recovered by search.
- Synthesise and (meta-) analyse data retrieved, guided by the clinical questions, and produce evidence profiles.
- Answer clinical questions with evidence-based recommendations for clinical practice.

The clinical practice recommendations made by the GDG are therefore derived from the most up-to-date and robust evidence base for the clinical and cost effectiveness of the treatments and services used in the treatment and management of borderline personality disorder. In addition, to ensure a service user and carer focus, the concerns of service users and carers regarding health and social care have been highlighted and addressed by recommendations agreed by the whole GDG.

3.2 The Scope

Guideline topics are selected by the Department of Health and the Welsh Assembly Government, which identify the main areas to be covered by the guideline in a specific remit (see *The Guideline Development Process – An Overview for Stakeholders, the Public and the NHS (Second Edition)* [NICE,

[1] Available from www.nice.org.uk

2006][2]). The remit for this guideline was translated into a scope document by staff at the NCCMH.

The purpose of the scope was to:

- provide an overview of what the guideline will include and exclude
- identify the key aspects of care that must be included
- set the boundaries of the development work and provide a clear framework to enable work to stay within the priorities agreed by NICE and the NCCMH and the remit from the Department of Health/Welsh Assembly Government
- inform the development of the clinical questions and search strategy
- inform professionals and the public about the expected content of the guideline
- keep the guideline to a reasonable size to ensure that its development can be carried out within an 18-month period.

The draft scope was subject to consultation with stakeholders over a 4-week period. During the consultation period, the scope was posted on the NICE website (www.nice.org.uk). Comments were invited from stakeholder organisations and Guideline Review Panel (GRP). Further information about the GRP can also be found on the NICE website. The NCCMH and NICE reviewed the scope in light of comments received, and the revised scope was signed off by the GRP.

3.3 The Guideline Development Group

The GDG was made up of professionals in psychiatry, clinical psychology, nursing, and general practice; academic experts in psychiatry and psychology; two former service users and a carer. The guideline development process was supported by staff from the NCCMH, who undertook the clinical and health economics literature searches, reviewed and presented the evidence to the GDG, managed the process, and contributed to drafting the guideline.

3.3.1 Guideline Development Group meetings

Seventeen GDG meetings were held between January 2007 and September 2008. During each day-long GDG meeting, in a plenary session, clinical questions and clinical and economic evidence were reviewed and assessed, and recommendations formulated. At each meeting, all GDG members declared any potential conflicts of interest, and service user and carer concerns were routinely discussed as part of a standing agenda.

[2] Available from: www.nice.org.uk

3.3.2 Topic groups

The GDG divided its workload along clinically relevant lines to simplify the guideline development process, and GDG members formed smaller topic groups to undertake guideline work in that area of clinical practice. Topic group 1 covered questions relating to pharmacological interventions. Topic group 2 covered psychological therapies (with a sub-group covering therapeutic communities), topic Group 3 covered services, topic group 4 covered young people, and topic group 5 covered service user and carer issues. These groups were designed to manage the appraisal of the evidence more efficiently prior to presenting it to the GDG as a whole. Each topic group was chaired by a GDG member with expert knowledge of the topic area (one of the healthcare professionals or service users as appropriate). Topic groups refined the clinical questions, refined the clinical definitions of treatment interventions, reviewed and prepared the evidence with NCCMH staff before presenting it to the GDG as a whole, and also helped the GDG to identify further expertise in the topic. Topic group leaders reported the status of the group's work as part of the standing agenda. They also introduced and led the GDG discussion of the evidence review for that topic and assisted the GDG Chair in drafting the section of the guideline relevant to the work of each topic group.

3.3.3 Service users and carers

Individuals with direct experience of services gave an integral service-user focus to the GDG and the guideline. The GDG included two former service users. They contributed as full GDG members to writing the clinical questions, helping to ensure that the evidence addressed their views and preferences, highlighting sensitive issues and terminology relevant to the guideline, and bringing service-user research to the attention of the GDG. In drafting the guideline, they contributed to writing a chapter on service user and carer issues for the full guideline, and to formulating recommendations from the service user and carer perspective.

3.3.4 Special advisors

Special advisors, who had specific expertise in one or more aspects of treatment and management relevant to the guideline, assisted the GDG, commenting on specific aspects of the developing guideline, including attending topic group meetings and teleconferences if appropriate. Appendix 3 lists those who acted as special advisors.

3.3.5 Researchers contacted for unpublished studies

National and international experts in the area under review were identified through the literature search and through the experience of the GDG members. These experts were contacted to recommend unpublished or soon-to-be published studies in order to ensure up-to-date evidence was included in the development of the guideline. They informed the group about

completed trials at the pre-publication stage, systematic reviews in the process of being published, studies relating to the cost effectiveness of treatment and trial data if the GDG could be provided with full access to the complete trial report. Appendix 5 lists researchers who were contacted.

3.3.6 Peer reviewers

Peer reviewers were identified by the GDG to review the guideline during the consultation phase, in addition to stakeholders. In addition, the review of pharmacological treatments was sent for peer review to international experts during the guideline development process since this section of the guideline was completed ahead of time and the draft recommendations were potentially controversial because they contradicted current clinical opinion. We therefore appointed peer reviewers who were leaders in the field. They were appointed as special advisers to ensure that confidentiality was maintained (see Appendix 3). Their comments and GDG responses are in Appendix 11.

3.4 Clinical questions

Clinical questions were used to guide the identification and interrogation of the evidence base relevant to the topic of the guideline. Before the first GDG meeting, draft questions were prepared by NCCMH staff based on the scope. They were then discussed by the GDG at their first two meetings and a final list drawn up. Where appropriate, the questions were refined once the evidence had been searched and, where necessary, sub-questions were generated. The final list of clinical questions can be found in Appendix 6.

For questions about interventions, the PICO (patient, intervention, comparison and outcome) framework was used. This structured approach divides each question into four components: the patients (the population under study), the interventions (what is being done), the comparisons (other main treatment options) and the outcomes (the measures of how effective the interventions have been) (see Text Box 2).

Text Box 2: Features of a well-formulated question on effectiveness intervention – the PICO guide

Patients/ population	Which patients or population of patients are we interested in? How can they be best described? Are there subgroups that need to be considered?
Intervention	Which intervention, treatment or approach should be used?
Comparison	What is/are the main alternative/s to compare with the intervention?
Outcome	What is really important for the patient? Which outcomes should be considered: intermediate or short-term measures; mortality; morbidity and treatment complications; rates of relapse; late morbidity and readmission; return to work, physical and social functioning and other measures such as quality of life; general health status; costs?

To help facilitate the literature review, a note was made of the best study design to answer each question. There are four main types of clinical question of relevance to NICE guidelines. These are listed in Text Box 3. For each type of question, the best primary study design varies, where 'best' is interpreted as 'least likely to give misleading answers to the question'. However, in all cases, a well-conducted systematic review of the appropriate type of study is likely to always yield a better answer than a single study. Deciding on the best design type to answer a specific clinical or public health question does not mean that studies of different design types addressing the same question were discarded.

Text Box 3: Best study design to answer each type of question

Type of question	Best primary study design
Effectiveness or other impact of an intervention	Randomised controlled trial; other studies that may be considered in the absence of an RCT are the following: internally / externally controlled before and after trial, interrupted time-series
Accuracy of information (e.g. risk factor, test, prediction rule)	Comparing the information against a valid gold standard in a randomised trial or inception cohort study
Rates (of disease, patient experience, rare side effects)	Cohort, registry, cross-sectional study
Costs	Naturalistic prospective cost study

3.5 Systematic clinical literature review

The aim of the clinical literature review was to systematically identify and synthesise relevant evidence from the literature in order to answer the specific clinical questions developed by the GDG. Thus, clinical practice recommendations are evidence-based, where possible. If evidence was not available, informal consensus methods were used (see Section 3.5.9) and the need for future research specified.

3.5.1 Methodology

A stepwise, hierarchical approach was taken to locating and presenting evidence to the GDG. The NCCMH developed this process based on methods set out in *The Guidelines Manual*[3] (NICE, 2006) and after considering recommendations from a range of other sources. These included:

- Clinical Policy and Practice Program of the New South Wales Department of Health (Australia)
- Clinical Evidence online
- The Cochrane Collaboration
- New Zealand Guidelines Group
- NHS Centre for Reviews and Dissemination
- Oxford Centre for Evidence-Based Medicine
- Scottish Intercollegiate Guidelines Network (SIGN)
- United States Agency for Healthcare Research and Quality
- Oxford Systematic Review Development Programme
- Grading of Recommendations: Assessment, Development and Evaluation (GRADE) Working Group.

3.5.2 The review process

After the scope was finalised, a more extensive search for existing systematic reviews and published guidelines was undertaken to inform the review process. The review team, in conjunction with the GDG, assessed the available existing systematic reviews for relevance to the clinical questions. This helped to assess the quantity and likely quality of available primary research. The initial approach taken to locating primary-level studies depended on the type of clinical question and availability of evidence.

The GDG then decided which questions were best addressed by good practice based on expert opinion, which questions were likely to have a good evidence base and which questions were likely to have little or no directly relevant evidence. Recommendations based on good practice were developed by informal consensus of the GDG. For questions with a good evidence base, the review process depended on the type of key question (see below). For questions that were unlikely to have a good evidence base, a brief descriptive review was initially undertaken by a member of the GDG.

[3] Available from www.nice.org.uk

Searches

The standard mental health related bibliographic databases were searched including EMBASE, MEDLINE, PsycINFO, and Central, together with the grey literature database HMIC. Search filters developed by the review team consisted of a combination of subject heading and free-text phrases. Specific filters were developed for the guideline topic and, where necessary, for individual clinical questions (see relevant chapters for details). The topic-specific filters were combined with appropriate research design filters developed for systematic reviews, RCTs and other appropriate research designs (Appendix 7).

The review team also scanned the reference lists of included studies and existing systematic reviews for additional references, together with evidence submitted by stakeholders. Unpublished evidence was also sought (see above)[4]. In addition, the tables of contents of appropriate journals were checked regularly for relevant studies. Searches for evidence were re-run every 6 months during the guideline development process with the final search undertaken between 6 and 8 weeks before submission of the consultation drafts. After this point, studies were included only if they were judged by the GDG to be exceptional (for example, the evidence was likely to change a recommendation).

The search process for questions concerning interventions

For questions related to interventions, the initial evidence base was formed from well-conducted randomised controlled trials (RCTs) that addressed at least one of the clinical questions (the review process is illustrated in Flowchart 1). Although there are a number of difficulties with the use of RCTs in the evaluation of interventions in mental health, the RCT remains the most important method for establishing treatment efficacy (this is discussed in more detail in the appropriate clinical evidence chapters). For other clinical questions, searches were for the appropriate study design (see above).

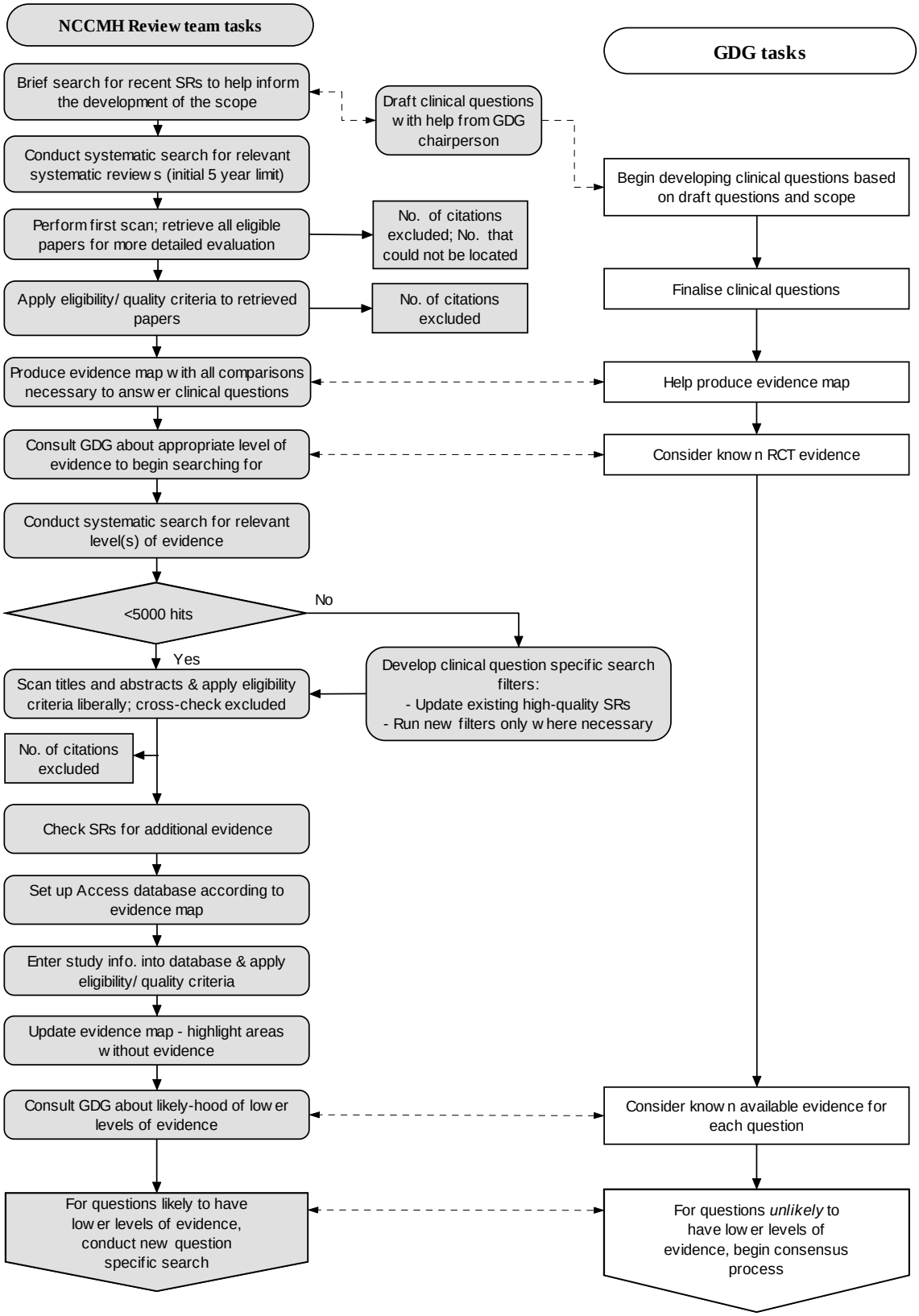
Since it was known from a review of existing systematic reviews in this area that the evidence base for borderline personality disorder was relatively small, a search for all randomised controlled trials for this topic area was undertaken together regardless of intervention.

After the initial search results were scanned liberally to exclude irrelevant papers, the review team used a purpose-built study information database to manage both the included and the excluded studies (eligibility criteria were developed after consultation with the GDG). For questions without good-quality evidence (after the initial search), a decision was made by the GDG about whether to (a) repeat the search using subject-specific databases (e.g.

[4] See also section on unpublished evidence below

CINAHL, AMED, SIGLE or PILOTS), (b) conduct a new search for lower levels of evidence or (c) adopt a consensus process (see Section 3.5.9).

Flowchart 1: Guideline review process



Study selection

All primary-level studies included after the first scan of citations were acquired in full and re-evaluated for eligibility at the time they were being entered into the study information database. Appendix 8 lists the standard inclusion and exclusion criteria. More specific eligibility criteria were developed for each clinical question and are described in the relevant clinical evidence chapters. Studies were critically appraised for methodological quality (see Appendix 9 and Appendix 16. The eligibility of each study was confirmed by at least one member of the appropriate topic group.

For some clinical questions, it was necessary to prioritise the evidence with respect to the UK context (that is, external validity). To make this process explicit, the topic groups took into account the following factors when assessing the evidence:

- participant factors (for example, cormorbid diagnose, and setting)
- provider factors (for example, model fidelity, the conditions under which the intervention was performed and the availability of experienced staff to undertake the procedure)
- cultural factors (for example, differences in standard care and differences in the welfare system).

It was the responsibility of each topic group to decide which prioritisation factors were relevant to each clinical question in light of the UK context and then decide how they should modify their recommendations.

Unpublished evidence

The GDG used a number of criteria when deciding whether or not to accept unpublished data. First, the evidence must have been accompanied by a trial report containing sufficient detail to properly assess the quality of the data. Second, the evidence must have been submitted with the understanding that data from the study and a summary of the study's characteristics would be published in the full guideline. Therefore, the GDG did not accept evidence submitted as commercial in confidence. However, the GDG recognised that unpublished evidence submitted by investigators might later be retracted by those investigators if the inclusion of such data would jeopardise publication of their research.

3.5.3 Outcomes

Outcome measurement on borderline personality disorder is problematic, partly because of the nature of the disorder and partly because of the relative immaturity of intervention research in this field. Since diagnosis of the disorder is based on the presence of 5 symptoms out of a possible total of 9 symptoms with no requirement for the presence of particular symptoms (based on DSM-IV which is used by most treatment studies), trialists usually measure outcomes on all or some of these symptoms. In addition, more than

one outcome measure has been developed for most areas of psychopathology caused by the disorder as well as psychosocial functioning affected by the disorder.

In order to deal with the plethora of outcomes reported by the trials forming the guideline's evidence base, the GDG appointed a special advisor with expertise in this area (see Appendix 3). A list of outcomes reported by the studies considered by the GDG is in Appendix 10, together with information on which were used and which were not. For a rating scale to be considered a validation study had to be published in a peer-reviewed journal. In order to increase the power of the meta-analyses, scales reporting the same outcome were examined in detail to assess whether they could be combined. However, self-report and clinical-rated scales were not combined.

3.5.4 Data extraction

Outcome data were extracted from all eligible studies, which met the quality criteria, using a standardised form (see Appendix 8). Study characteristics were also extracted into an Access database. Full study characteristics are in Appendix 16 with summary tables in the evidence chapters.

For a given outcome (continuous and dichotomous), where more than 50% of the number randomised to any group were not accounted for[5] by trial authors, the data were excluded from the review because of the risk of bias. However, where possible, dichotomous efficacy outcomes were calculated on an intention-to-treat basis (that is, a 'once-randomised-always-analyse' basis). This assumes that those participants who ceased to engage in the study – from whatever group – had an unfavourable outcome. This meant that the 50% rule was not applied to dichotomous outcomes where there was good evidence that those participants who ceased to engage in the study were likely to have an unfavourable outcome (in this case, early withdrawals were included in both the numerator and denominator). Adverse effects were entered into Review Manager as reported by the study authors because it was usually not possible to determine whether early withdrawals had an unfavourable outcome. For the outcome 'leaving the study early for any reason', the denominator was the number randomised.

Where some of the studies failed to report standard deviations (for a continuous outcome), and where an estimate of the variance could not be computed from other reported data or obtained from the study author, the following approach was taken[6]:

1. When the number of studies with missing standard deviations was small and when the total number of studies was large, the pooled

[5] 'Accounted for' in this context means using an appropriate method for dealing with missing data (for example, LOCF or a regression technique).

[6] Based on the approach suggested by Furukawa et al. (2006)

standard deviation from all the other available studies in the same meta-analysis was used. In this case, the appropriateness of the imputation was made by comparing the standardised mean differences (SMDs) of those trials that had reported standard deviations against the hypothetical SMDs of the same trials based on the imputed standard deviations. If they converged, the meta-analytical results were considered to be reliable.

2. When the number of studies with missing standard deviations was large or when the total number of studies was small, standard deviations were taken from a previous systematic review (where available), because the small sample size may allow unexpected deviation due to chance. In this case, the results were considered to be less reliable.

Consultation was used to overcome difficulties with coding. Data from studies included in existing systematic reviews were extracted independently by one reviewer and cross-checked with the existing data set. Where possible, two independent reviewers extracted data from new studies. Where double data extraction was not possible, data extracted by one reviewer was checked by the second reviewer. Disagreements were resolved with discussion. Where consensus could not be reached, a third reviewer resolved the disagreement. Masked assessment (that is, blind to the journal from which the article comes, the authors, the institution and the magnitude of the effect) was not used since it is unclear that doing so reduces bias (Jadad *et al*., 1996; Berlin, 2001).

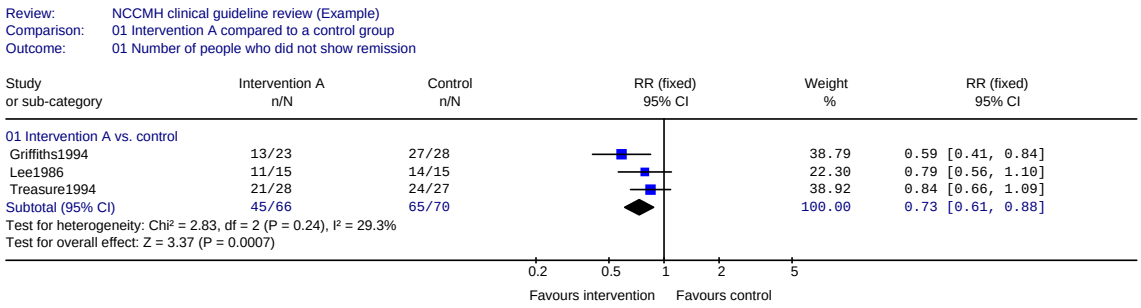
3.5.5 Synthesising the evidence

Where possible, meta-analysis was used to synthesise the evidence using Review Manager 4.2.8 (Cochrane Collaboration, 2005). If necessary, reanalyses of the data or sub-analyses were used to answer clinical questions not addressed in the original studies or reviews.

Dichotomous outcomes were analysed as relative risks (RR) with the associated 95% CI (for an example, see Figure 1). A relative risk (also called a risk ratio) is the ratio of the treatment event rate to the control event rate. An RR of 1 indicates no difference between treatment and control. In Figure 1, the overall RR of 0.73 indicates that the event rate (that is, non-remission rate) associated with intervention A is about three quarters of that with the control intervention or, in other words, the relative risk reduction is 27%.

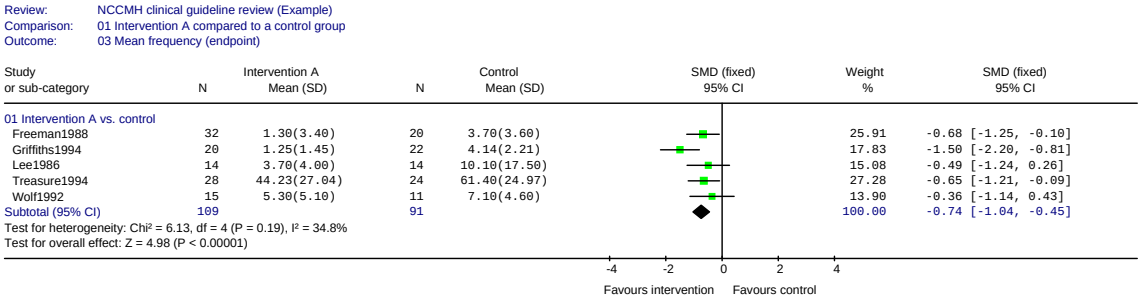
The CI shows with 95% certainty the range within which the true treatment effect should lie and can be used to determine statistical significance. If the CI does not cross the 'line of no effect', the effect is statistically significant.

Figure 1: Example of a forest plot displaying dichotomous data



Continuous outcomes were analysed as weighted mean differences (WMD), or as a standardised mean difference (SMD) when different measures were used in different studies to estimate the same underlying effect (for an example, see Figure 2). If provided, intention-to-treat data, using a method such as 'last observation carried forward', were preferred over data from completers.

Figure 2: Example of a forest plot displaying continuous data



To check for consistency between studies, both the I^2 test of heterogeneity and a visual inspection of the forest plots were used. The I^2 statistic describes the proportion of total variation in study estimates that is due to heterogeneity (Higgins & Thompson, 2002). The I^2 statistic was interpreted in the follow way:

- > 50%: notable heterogeneity (an attempt was made to explain the variation, for example outliers were removed from the analysis or sub-analyses were conducted to examine the possibility of moderators. If studies with heterogeneous results were found to be comparable, a random-effects model was used to summarise the results (DerSimonian & Laird, 1986). In the random-effects analysis, heterogeneity is accounted for both in the width of CIs and in the estimate of the treatment effect. With decreasing heterogeneity the random-effects approach moves asymptotically towards a fixed-effects model).

- 30 to 50%: moderate heterogeneity (both the chi-squared test of heterogeneity and a visual inspection of the forest plot were used to decide between a fixed and random-effects model)

- < 30%: mild heterogeneity (a fixed-effects model was used to synthesise the results).

To explore the possibility that the results entered into each meta-analysis suffered from publication bias, data from included studies were entered, where there were sufficient data, into a funnel plot. Asymmetry of the plot was taken to indicate possible publication bias and investigated further.

An estimate of the proportion of eligible data that were missing (because some studies did not include all relevant outcomes) was calculated for each analysis.

The Number Needed to Treat - Benefit (NNTB) or the Number Needed to Treat - Harm (NNTH) was reported for each outcome where the baseline risk (i.e. control group event rate) was similar across studies. In addition, NNTs calculated at follow-up were only reported where the length of follow-up was similar across studies. When the length of follow-up or baseline risk varies (especially with low risk), the NNT is a poor summary of the treatment effect (Deeks, 2002). The percentage with the event in question was reported for each treatment group.

Included/excluded studies tables, generated automatically from the study information database, were used to summarise general information about each study (see Appendix 16). Where meta-analysis was not appropriate and/or possible, the reported results from each primary-level study were also presented in the included studies table (and included, where appropriate, in a narrative review).

Skewed data

Continuous data reported by the trials may not be normally distributed. Whilst this is not so much of a problem in larger trials, effect sizes calculated from data from smaller trials should be treated with caution. Given that many of the trials reviewed for this guideline used relatively small populations skewedness was assessed based on the following definition of skewedness: mean is greater than two times the standard deviation. Evidence was downgraded where skewed data exists (see section on evidence profile tables below). All effect sizes calculated with skewed data are marked with an asterisk and should therefore be interpreted cautiously.

3.5.6 Presenting the data to the GDG

Summary characteristics tables and, where appropriate, forest plots generated with Review Manager were presented to the GDG in order to prepare an evidence profile for each review and to develop recommendations.

Evidence profile tables

An evidence profile table was used to summarise both the quality of the evidence and the results of the evidence synthesis (see Table 3 for an example

of an evidence profile table). Each table included details about the quality assessment of each outcome: quality of the included studies based on the SIGN grade (Scottish Intercollegiate Guideline Network – see Appendix 9 for checklist), number of studies, and limitations, information about the consistency of the evidence (see below for how consistency was measured), directness of the evidence (that is, how closely the outcome measures, interventions and participants match those of interest) and any other considerations (for example, effect sizes with wide confidence intervals (CIs) would be described as imprecise data). Each evidence profile also included a summary of the findings: number of patients included in each group, an estimate of the magnitude of the effect, quality of the evidence, and the importance of the evidence. The quality of the evidence was based on the quality assessment components (study design, limitations to study quality, consistency, directness and any other considerations) and graded using the following definitions:

- **High** = Further research is very unlikely to change our confidence in the estimate of the effect
- **Moderate** = Further research is likely to have an important impact on our confidence in the estimate of the effect and may change the estimate
- **Low** = Further research is very likely to have an important impact on our confidence in the estimate of the effect and is likely to change the estimate
- **Very low** = Any estimate of effect is very uncertain.

For further information about the process and the rationale of producing an evidence profile table, see GRADE (2004). Full evidence profiles are in Appendix 18 and summary profiles are included in the evidence chapters.

Table 3 Example evidence profile for brief psychological interventions

Forest plot	Description	*Study Ids*	*Quality*	*Consistency*	*Directness (all 100% BPD)*	*Other factors*	*N treatment group/N control*	*Effect size (SMD)*	*Absolute statistic (WMD)*	*Likelihood of clinically important effect*	*Overall quality*
	Anxiety Measures										
Psych 03.01	01 HADS anxiety	Tyrer 2004 MACT	SIGN 1++	N/A		Sparse data (-1)	31/33	SMD = 0.01 (-0.48, 0.5)	WMD = 0.06 (-2.29, 2.41)	Unlikely	Moderate
	Depression measures										
Psych 03.02	01 MADRS (MACT vs TAU)	Tyrer 2004 MACT	SIGN 1++	N/A		Sparse, skewed and inconclusive data (-2)	31/33	SMD = 0.07 (-0.42, 0.56)	WMD = 0.74 (-4.42, 5.9)	Inconclusive	Very low
Psych 03.02	02 HADS depression (MACT vs TAU)	Tyrer 2004 MACT	SIGN 1++	N/A		Sparse, skewed and inconclusive data (-2)	31/33	SMD = 0.12 (-0.37, 0.61)	WMD = 0.69 (-2.12, 3.5)	Inconclusive	Very low
	Self-harm and suicidal acts (reported together) (continuous)										
Psych 03.04	01 Self-harm and suicidal acts reported together	Weinberg 2006 MACT	SIGN 1+	N/A		Sparse and skewed data (-1)	15/13	SMD = -0.88 (-1.67, -0.1)	WMD = -3.03 (-5.68, -0.38)	Likely (favouring treatment)	Moderate
Psych 03.04	02 Self-harm and suicidal acts reported together (6-month follow-up)	Weinberg 2006 MACT	SIGN 1+	N/A		Sparse, skewed and inconclusive data (-2)	15/15	SMD = -0.51 (-1.24, 0.22)	WMD = -4.71 (-11.16, 1.74)	Inconclusive	Very low
	Self-harm measures (dichotomous)										
Psych 03.05	01 No with >=1 episode of parasuicide	Tyrer 2004 MACT	SIGN 1+	N/A		Sparse data (-1)	34/36	RR = 0.97 (0.88, 1.07)	94%	Unlikely	Moderate

Forest plots

Each forest plot displayed the effect size and CI for each study as well as the overall summary statistic. The graphs were organised so that the display of data in the area to the left of the 'line of no effect' indicated a 'favourable' outcome for the treatment in question. Forest plots are in Appendix 17.

3.5.7 Determining clinical significance

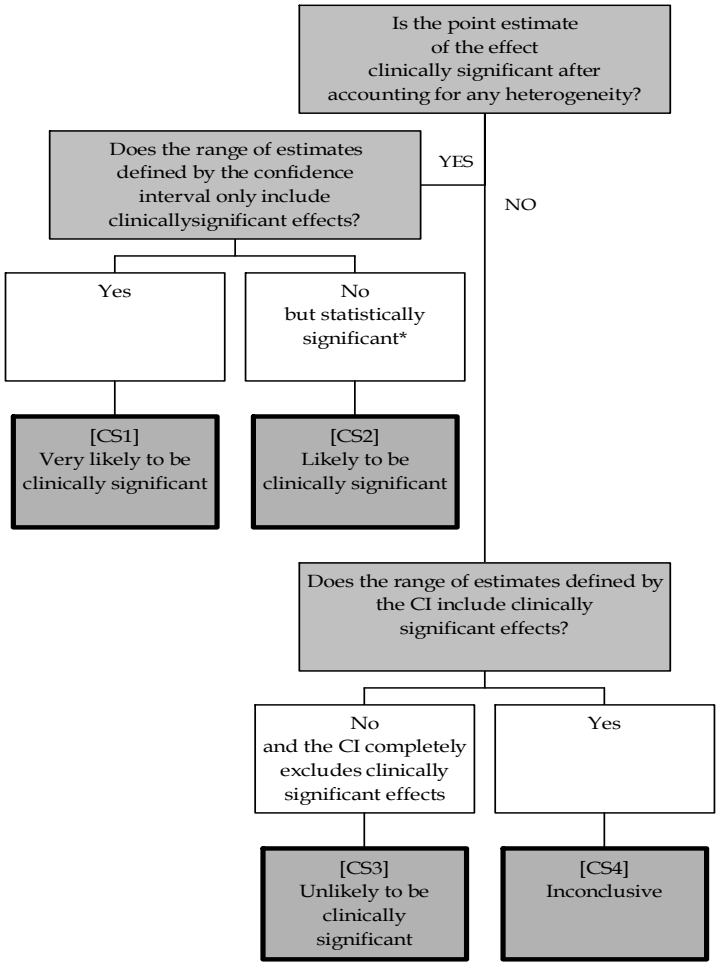
In order to facilitate consistency in generating and drafting the clinical summaries, a decision tree was used to help determine, for each comparison, the likelihood of the effect being clinically significant (see Figure 3). The decision tree was designed to be used as one step in the interpretation of the evidence (primarily to separate clinically important from clinical negligible effects) and was not designed to replace clinical judgement. For each comparison, the GDG
defined *a priori* a clinically significant threshold, taking into account both the comparison group and the outcome.

As shown in Figure 3, the review team first classified the point estimate of the effect as clinically significant or not. For example, if an RR of 0.75 was considered to be the threshold, then a point estimate of 0.73 (as can be seen in Figure 1), would meet the criteria for clinical significance. Where heterogeneity between studies was judged problematic, in the first instance an attempt was made to explain the cause of the heterogeneity (for example, outliers were removed from the analysis or sub-analyses were conducted to examine the possibility of moderators). Where homogeneity could not be achieved, a random-effects model was used.

Where the point estimate of the effect exceeded the threshold, a further consideration was made about the precision of the evidence by examining the range of estimates defined by the CI. Where the effect size was judged clinically significant for the full range of plausible estimates, the result was described as *very likely to be clinically significant* (that is, CS1). In situations where the CI included clinically unimportant values, but the point estimate was both clinically and statistically significant, the result was described as *likely to be clinically significant* (that is, CS2). However, if the CI crossed the line of no effect (that is, the result was not statistically significant), the result was described as *inconclusive* (that is, CS4).

Where the point estimate did not meet the criteria for clinical significance and the CI completely excluded clinically significant values, the result was described as *unlikely to be clinically significant* (that is, CS3). Alternatively, if the CI included both clinically significant and clinically unimportant values, the result was described as *inconclusive* (that is, CS4). In all cases described as inconclusive, the GDG used clinical judgement to interpret the results.

Figure 3: Decision tree for helping to judge the likelihood of clinical significance



*Efficacy outcomes with large effect sizes and very wide confidence intervals should be interpreted with caution and should be described as inconclusive (CS4), especially if there is only one small study.

3.5.8 Forming the clinical summaries and recommendations

Once the evidence profile tables relating to a particular clinical question were completed, summary tables incorporating important information from the evidence profile and an assessment of the clinical significance of the evidence were produced (these tables are presented in the evidence chapters). Finally, the systematic reviewer in conjunction with the topic group lead produced a clinical summary. Once the evidence profile tables and clinical summaries were finalised and agreed by the GDG, the associated recommendations were produced, taking into account the trade-off between the benefits and risks as well as other important factors. These included economic considerations, values of the development group and society, and the group's awareness of practical issues (Eccles *et al*., 1998).

3.5.9 Method used to answer a clinical question in the absence of appropriately designed, high-quality research

In the absence of level I evidence (or a level that is appropriate to the question), or where the GDG were of the opinion (on the basis of previous searches or their knowledge of the literature) that there were unlikely to be such evidence, either an informal or formal consensus process was adopted. This process focused on those questions that the GDG considered a priority.

Informal consensus

The starting point for the process of informal consensus was that a member of the topic group identified, with help from the systematic reviewer, a narrative review that most directly addressed the clinical question. Where this was not possible, a brief review of the recent literature was initiated.

This existing narrative review or new review was used as a basis for beginning an iterative process to identify lower levels of evidence relevant to the clinical question and to lead to written statements for the guideline. The process involved a number of steps:

1. A description of what is known about the issues concerning the clinical question was written by one of the topic group members

2. Evidence from the existing review or new review was then presented in narrative form to the GDG and further comments were sought about the evidence and its perceived relevance to the clinical question

3. Based on the feedback from the GDG, additional information was sought and added to the information collected. This may include studies that did not directly address the clinical question but were thought to contain relevant data

4. If, during the course of preparing the report, a significant body of primary-level studies (of appropriate design to answer the question) were identified, a full systematic review was done

5. At this time, subject possibly to further reviews of the evidence, a series of statements that directly addressed the clinical question were developed

6. Following this, on occasions and as deemed appropriate by the development group, the report was then sent to appointed experts outside of the GDG for peer review and comment. The information from this process was then fed back to the GDG for further discussion of the statements

7. Recommendations were then developed

8. After this final stage of comment, the statements and recommendations were again reviewed and agreed upon by the GDG.

3.6 Health economics review strategies

The aim of the health economics was to contribute to the guideline's development by providing evidence on the cost effectiveness of interventions for borderline personality disorder covered in the guideline. The GDG, in collaboration with the health economist, identified psychological treatments for borderline personality disorder as an area with likely major resource implications. For this reason, a systematic literature review of existing economic evidence in this area was conducted. Additional decision-economic modelling was not undertaken, owing to lack of appropriate data: overall, availability of clinical data was limited; psychological studies reported a large number of outcomes, mainly expressed as scores in rating scales, which could not be pooled and converted to a meaningful outcome for an economic analysis, such as Quality Adjusted Life Years (QALYs). In addition, a well-defined treatment pathway that would form the basis for the structure of an economic model does not exist. For this reason, economic considerations in this guideline were based exclusively on previously published economic evidence.

3.6.1 Search strategy

For the systematic review of economic evidence the standard mental-health-related bibliographic databases (EMBASE, MEDLINE, CINAHL and PsycINFO) were searched. For these databases, a health economics search filter adapted from the Centre for Reviews and Dissemination at the University of York was used in combination with a general filter for borderline personality disorder. Additional searches were performed in specific health economics databases (NHS EED, OHE HEED), as well as in the HTA database. For the HTA and NHS EED databases, the general filter for borderline personality disorder was used. OHE HEED was searched using a shorter, database-specific strategy. Initial searches were performed in January

2007. The searches were updated regularly, with the final search between 6 and 8 weeks before the consultation period (May 2008).

In parallel to searches of electronic databases, reference lists of eligible studies and relevant reviews were searched by hand. Studies included in the clinical evidence review were also screened for economic evidence.

The systematic search for economic evidence resulted in 12 potentially relevant studies. Full texts of all potentially eligible studies (including those for which relevance/eligibility was not clear from the abstract) were obtained. These publications were then assessed against a set of standard inclusion criteria by the health economists, and papers eligible for inclusion were subsequently assessed for internal validity. The quality assessment was based on the checklists used by the *British Medical Journal* to assist referees in appraising full and partial economic analyses (Drummond & Jefferson, 1996) (Appendix 13).

3.6.2 Selection criteria

The following inclusion criteria were applied to select studies identified by the economic searches for further analysis:

- No restriction was placed on language or publication status of the papers
- Studies published from 1996 onwards were included. This date restriction was imposed in order to obtain data relevant to current healthcare settings and costs
- Only studies from Organisation for Economic Co-operation and Development countries were included, as the aim of the review was to identify economic information transferable to the UK context
- Selection criteria based on types of clinical conditions and patients were identical to the clinical literature review
- Studies were included provided that sufficient details regarding methods and results were available to enable the methodological quality of the study to be assessed, and provided that the study's data and results were extractable. Poster presentations of abstracts were excluded from review
- Only studies that utilised clinical data from a systematic review of the literature and meta-analysis, an RCT, or a well-conducted observational study were included in the review. Non-comparative studies as well as before-after studies (assessment of costs and outcomes before and after provision of an intervention) were excluded
- Full economic evaluations that compared two or more relevant options and considered both costs and consequences (that is, cost–consequence analysis, cost-effectiveness analysis, cost–utility analysis or cost–benefit analysis) were included in the review.

3.6.3 Data extraction

Data were extracted by the health economist using a standard economic data extraction form (Appendix 14).

3.6.4 Presentation of economic evidence

The economic evidence identified by the health economics systematic review is summarised in the respective chapters of the guideline, following presentation of the clinical evidence. The characteristics and results of all economic studies included in the review are provided in the form of evidence tables in Appendix 15.

3.7 Stakeholder contributions

Professionals, service users, and companies have contributed to and commented on the guideline at key stages in its development. Stakeholders for this guideline include:

- service user/carer stakeholders: the national service user and carer organisations that represent people whose care is described in this guideline
- professional stakeholders: the national organisations that represent health care professionals who are providing services to service users
- commercial stakeholders: the companies that manufacture medicines used in the treatment of borderline personality disorder
- Primary Care Trusts
- Department of Health and Welsh Assembly Government.

Stakeholders have been involved in the guideline's development at the following points:

- commenting on the initial scope of the guideline and attending a briefing meeting held by NICE
- contributing possible clinical questions and lists of evidence to the GDG
- commenting on the first and second drafts of the guideline.

3.8 Validation of this guideline

Registered stakeholders commented on the draft guideline, which was posted on the NICE website during the 8-week consultation period. The GRP also reviewed the guideline and checked that stakeholders' comments had been addressed.

Following the consultation period, the GDG finalised the recommendations and the NCCMH produced the final documents. These were then submitted to NICE. NICE then formally approved the guideline and issued its guidance to the NHS in England, Wales, and Northern Ireland.

4 Experience of care

4.1 Introduction

This chapter provides an overview of the experience of people with borderline personality disorder and their carers. In the first section are first-hand personal accounts written by service users, former service users and a carer, which provide some illustration of the experience of having the diagnosis, accessing services and caring for someone with the disorder. This is followed by a review of the qualitative literature of service user experience and a narrative review of the available evidence and expert consensus regarding carers of people with borderline personality disorder. Finally there is a summary of the themes emerging from the personal accounts and the literature reviews, which provides a basis for the recommendations.

4.2 Personal accounts

4.2.1 Introduction

This section contains first-hand personal accounts from people with borderline personality disorder and a carer. The accounts offer different perspectives of the disorder: accounts A and B are written by former service users (both female); accounts C (male) and D (female) are written by current service users; and account E is from the mother of the author of account C. The writers of the accounts were contacted through the service user contacts on the GDG; they were asked to write about their experiences of diagnosis, accessing services and treatment, their relationship with healthcare professionals, and self-help and support during a crisis. Each author signed a consent form allowing the account to be reproduced in this guideline.

4.2.2 Personal account A

I'd been a troubled kid from about the age of 9. My Dad worked away a lot and I had a difficult relationship with my Mum; we clashed and there was limited physical affection between us as I got older. In general though, I would say that I had a spoilt, middle-class upbringing with no material hardships. Despite this I was still unable to cope with the out-of-control emotions inside of me. Looking back I am able to describe these emotions as anger, but at the time I didn't know what they were and they terrified me. I was hurt and lonely but didn't have the words to express how I felt or what I needed.

I remember the first time I started cutting myself. I was sitting in the school field at break time and rubbing a piece of glass up and down my arm. It hurt but the pain felt comforting and it focused my emotions on that point of my skin. When I bled it felt like all the bad feelings just flowed out of me.

From then on, it was as if I had found my escape mechanism. I never had to deal with out-of-control panic, fear, anger, rage or vulnerability again. I could just bleed. By my late teens I was an empty shell. I felt nothing any more, and no one could reach me or hurt me. I lived in a strange, safe, isolated world.

In my isolated world all communication shut down. At home I could count the number of words passing between my Mum and me each day on the fingers of one hand. At school I had friends and was academically successful but people were suspicious about the number of injuries I was developing.

One of my friends had read an article about self-harm and questioned me about it. Even though I was the one putting the razor blade against my arm I was unable to accept that people would actually cut themselves on purpose and denied it. Teachers became involved but I think my horror at the suggestion of self-harm encouraged almost everyone to believe I was just clumsy.

From school I went on to medical school to train as a doctor. University is a challenging place for someone who struggles with emotions and relationships, and my cutting and other self-injurious behaviour increased quite dramatically in order for me to continue, but I did continue and was getting by. When I first started university I felt as though I had to re-learn how to talk to people—I had shut down so much that I didn't think I could communicate on a social level.

In my second year at university, I was attacked and raped on the way home from a student party. Life started to spiral out of control for me at this point. The bigger my inner turmoil the stronger the need was to bleed. I started making deeper and deeper cuts, sometimes I would go through arteries and need to be hospitalised. I could no longer be described as getting by.

After one such incident I was visited in hospital by a psychiatrist and taken by taxi to the local psychiatric clinic. This was a serious shock to the system— I felt I was descending into an unknown and terrifying world of 'loonies' and 'nutters', and someone thought I was one of them.

I was immediately prescribed chlorpromazine along with assorted antidepressants and the side effects left me feeling at home in the asylum very quickly. My legs were twitchy and my whole body felt lethargic. I wandered around dragging my feet with my head hung low, and soon relaxed into day room behaviour of cigarette smoking, rocking and leg twitching. The drugs had the effect of numbing both my mind and my body and I was able to get through my days without feeling desperately self-destructive. It was not a good way to be seen by friends though, and I don't think my partner and flatmates ever really got over seeing me like that.

I was diagnosed with post-traumatic stress disorder and depression. I started a course of psychotherapy at the same time, stayed at the clinic for a few weeks and then went back home. I continued with the therapy and my clinical studies but the two didn't combine very well. Psychotherapy can leave you very raw as you deal with any number of complex issues from the past. As I've said before, I didn't deal well with emotion; it was as if I hadn't been taught how to recognise it or deal with it.

I had a very good relationship with my psychotherapist; I trusted her and felt we were getting somewhere, but the trouble with psychotherapy is that you often feel a lot worse before you start to feel better. I had been seeing her for some months when she announced that she was going to have to hand me over to another therapist as she had to move away. I think this came at quite a tough point in the therapy and it coincided with an escalation in my self-harming.

I was spiralling out of control, becoming hugely self-destructive and suicidal and I was quickly readmitted to hospital. I spent a number of days on constant observation, with a nurse staying with me every second of the day, but I still managed to harm myself. It was getting to the point where members of staff were actually putting themselves at risk in order to prevent me from destroying myself.

At this point my psychotherapist called my parents and told them that she didn't believe I would still be alive to see my birthday at the end of the month. I didn't see my parents very often but they had visited me once at the clinic for a family session with my psychotherapist. I can't imagine how they handled this news. Even now that all this is behind us and we enjoy a good bond, I still feel desperately guilty for putting them through that entire trauma.

Shortly before my 22nd birthday I was called into a room with my psychotherapist and GP. They sectioned me and I was taken away to a regional secure unit 'for my own safety'. A secure unit is effectively a medical prison for the criminally mentally ill; it is no place for a distressed, depressed and self-destructive individual. I cannot really complain that my psychotherapist sent me there though; I think in part she was desperately trying to ensure my safety – she felt a certain amount of responsibility as she had to move on, and there really weren't any suitable alternatives at the time.

At the secure unit I found myself on a mixed ward with rapists and arsonists and for the second time I felt out of place. Despite the rigorous searches and removal of all my belongings, I still managed to secure razor blades. As a result, I was strip searched and I spent the next few days sleeping naked on a bomb-proof mattress on the floor of a padded cell, while under permanent observation.

It was here in the secure unit that the forensic psychiatrist gave me the label of 'borderline personality disorder'. Given the nature of my surroundings I felt that I was being punished—I was locked up with people who had committed crimes and my core being, my personality, was under attack.

This particular crisis period was time limited (my panic was related to my birthday), so when that day finally passed safely I began to take control of myself again. I could get though the day without focusing entirely on ways of disposing of myself and instead I began to look for ways to get out. Thankfully I didn't stay at the secure unit for very long. I had already started to appeal for my section to be quashed, but the staff also felt I was not in the best place—they felt somewhat compromised in retaining me as the only patient on a mental health section rather than one imposed via the courts. I was visited by the consultant at the local therapeutic community and invited for a community assessment.

I wasn't sure how to take this latest development. TCs had been mentioned to me before and I thought this would involve groups of people having crisis meetings to discuss how it made them 'feel' when someone took their milk from the fridge, for example. Again, I didn't think this was part of my life. I was a medical student – successful academically – but there was no getting around the fact I wasn't coping with living very well. It was unlikely that I'd ever be able to go back to my studies, so I had lost my career, my home and my friends. Life had pretty much reached rock bottom for me so it was time for me to accept any lifeline I was being thrown.

I went to the community meeting and it was clear that this group of about 25 residents were split on whether they wanted me to join them. Half felt I should be given a chance and the other half were adamant that I would be bad for the group. I was considered a big risk given my history of uncontrolled self-harm. Finally they came down on my side and let me join them but on the condition that I'd be out if I cut again.

The therapeutic community was the strangest, toughest, most homely place in which I have ever lived. I was there for about 15 months, learning how to feel and live again. It was as if I was given a second chance to do my growing up.

It's an incredibly challenging environment: if you mess up it affects other people and they don't hold back from telling you. That is really tough. You can be struggling and want to cut, but you have someone facing you in a group telling you how selfish you are and how that would make them feel. It's the group dynamic that gets you through in the end though. I learnt so much from the staff and residents in those 15 months and truly thank them for giving me back my life.

Part of the responsibility of living in a therapeutic community is to take on roles related to the running of the community. This varied between preparing meals, chairing meetings, writing notes on individual group sessions and feeding back after someone has spoken of their individual struggles. I often found myself assuming or being pushed into the role of spokesperson or advocate and the effect was to renew my feelings of self worth.

I arrived unsure of who I was and where I belonged but slowly, through the interaction with others, I was able to reassemble my understanding of me.

When I left the TC I was in a position to start putting my life back together. It took a while as I'd pretty much reached the bottom rung, but life is good for me now. I'm almost 15 years on and haven't purposefully injured myself in that time. I've had a number of jobs, got myself a career, a PhD and some good friends. It's taken me a long while to pick up from where I left off at 9 years old but I think I'm there now, happy, settled and coping again.

4.2.3 Personal account B

My psychiatrist gave me the diagnosis of borderline personality disorder when I was 24. I was an inpatient in a psychiatric hospital at the time. I had been expecting this for some time, having been aware of borderline personality disorder from my previous work as a nursing assistant in child and adolescent mental health. However, I had been struggling a long time before I realised the diagnosis was applicable to me. Consequently, receiving the diagnosis wasn't a shock, and at that moment I found it reassuring that I wasn't going to tip into a deep psychosis from which I would never return. It also helped me start to piece together my understanding of how I had got to that point - why things had got so bad that the only place I could have any kind of existence was a psychiatric hospital.

Looking back, my whole life had seemed to be heading to that point. As a child I was hyperactive and was more interested in my environment and learning new things than being held by my parents. I think my parents interpreted this as a rejection and as being difficult. In addition, the family dynamics were difficult and incomprehensible to me as a child and I blamed myself for them. However, I lived well and was lucky enough to be able to do most things that I wanted in terms of activities; my parents gave me everything that they could. Despite this, home felt too unsafe and volatile an environment to express my emotional and personal needs. Among my sisters I felt the odd one out. I felt that I didn't belong in my family. My way of coping with these feelings was to throw myself into school, where my joy of learning, music and sport allowed me to immerse myself to the extent that my success at school somehow became a substitute for parenting.

What I didn't realise at the time, however, was that I still had a huge yearning to be parented. I needed emotional connection, safety and understanding but

didn't recognise those needs nor knew how to get them met. As I grew older, I struggled more and more socially because what I was missing meant that I did not acquire the empathic understanding needed to manage social relationships. This yearning for connection led me to seek refuge in any potential parenting figures that I came across. Unfortunately, one person who took me under his wing was interested in me for the wrong reasons—I was sexually abused and raped as a child over a period of 6 months to a year. This amplified my difficulties. I became even more socially isolated and emotionally inept as I tried to shut out these experiences that I couldn't begin to comprehend.

Not long after this I moved with my family to a different part of the country. At first, this was a welcome change and a relief from abuse. People had no prior knowledge or judgements about me and this was welcome. I could be different from before—I could start again. However, this relief only lasted for about 6 months. Now as a teenager, my difficulties and the emotions and memories I had temporarily locked away began to resurface. My behaviour at school deteriorated, my moods became unstable, I was withdrawn, I frequently sought out teachers for support but didn't know why, I'd leave lessons for no reason, I'd have arguments with teachers, I began to self-harm (hitting myself mainly), and became more preoccupied with the thought of suicide.

When I was 14, I was referred to child and adolescent mental health outpatient services where I began work with a clinical psychologist whom I saw weekly, sometimes twice weekly, for approximately 4 to 5 years. I was diagnosed with post-traumatic stress disorder.

Having a psychologist meant that I finally had someone who could partly meet my need for a parent (in that they could give me an emotional connection and understanding I so desperately needed). I undertook some important work around understanding the abuse, but when she tried to initiate conversations about my family I couldn't say anything. All I knew then was that I didn't feel safe at home. She described my family life as being a 'ghost town'.

During this time my thoughts of self-harm and suicide became more prominent, but my drive towards destructiveness was most apparent in my relationships with men. Not knowing how to deal with men after the abuse, the conflict between needing to be close to someone and being frightened of intimacy became increasingly more difficult to handle as I was now at that age where male attention was inevitable. I would found myself in difficult situations where I would end up having sex with people I didn't want to as a result of fear and an inability to express my needs and say 'no'. After a while, I figured the only way to deal with this was to be the one in control. Instead of

waiting to be seduced I became the seducer, placing myself in a number of risky situations.

Despite all this, I managed to get to university. Although I thrived in the freedom that university allowed and in being away from my family, I was still extremely fragile in my sense of self and in my emotions. There was still a lot I had to deal with and understand about my past, and this at times, especially combined with the pressure at university, meant that I found it extremely difficult to cope. I accessed the university counselling service on a number of occasions, but found that it didn't work at quite the depth I needed. In the holidays, I occasionally had the opportunity to have a number of sessions with my previous clinical psychologist. This support often enabled me to be 'topped up' just enough in order to survive another term. However, the final year of my degree saw things start to disintegrate; the added pressure combined with my limited resources meant that I had nothing left at times. My closest friendships broke down and I ended up taking two overdoses as I couldn't manage the situation with my friends, the exams, and the thought of leaving university—I wasn't ready to be an adult.

Just prior to these overdoses I had been referred to a psychologist at university and had been prescribed an antidepressant (paroxetine) by my GP. I struggled to work with this psychologist as he took more of a behaviourist approach, which I didn't find at all helpful. I also struggled with beginning a new therapeutic relationship after having had such a positive therapeutic experience with my previous psychologist. I eventually took myself off the antidepressant because I didn't feel that it was helping.

Somehow, I managed to complete my degree and returned to live with my parents. As a result of my overdoses at university, my GP wished to refer me to adult mental health services when I re-registered. This resulted in my referral to another clinical psychologist who I met approximately biweekly. Things had settled since returning from university, but my difficulties hadn't gone away—they were just more in the background. I still struggled a lot of the time, but I was able to keep this more private. I began working as a classroom assistant in a school with children with special needs, which I thoroughly enjoyed. I then started work in child and adolescent mental health. This proved to be a mixed blessing.

Therapeutically, the clinical psychologist and I had just started to unravel some of my family dynamics and make sense of my experiences growing up. I began to understand that my Mum and I had both struggled with insecure attachments throughout our lives and this helped me to understand some of the dysfunctional interactions I so often repeated in my other relationships. The combination of attachment and psychodynamic understanding worked well for me. It captured so much of the unexplained and helped me construct my life story, putting more solid foundations in place for a sense of self to

develop. Understanding my Mum's difficulties and, in addition, my Dad's background (his Mum died when he was a teenager and he had had repeated episodes of depression and anxiety) also helped me understand the volatile interactions that often occurred in our family and my parents' capacity to be mildly physically and emotionally abusive at times.

However, doing this type of therapeutic work while working in child and adolescent mental health proved to be a destructive combination. I thoroughly enjoyed the work and felt that I was good at it. However, I was giving so much to the children I was working with and at the same time was more open to my emotions as a result of the therapeutic work I was undertaking. Everyday, I saw in the children how I was feeling inside being acted out in front of me. This triggered so much that when I went home in the evening I couldn't begin to recognise, name or understand the emotions I was feeling. Instead, all I experienced was a huge vacuum. I was being sucked into something I didn't feel I could survive. I literally felt that this feeling would kill me—it was so huge and consuming.

The only way I could handle these feelings and to feel any sense of control was through self-destruction, although more realistically I felt simultaneously out of control and in control at the same time. The drive to self-destruct was so strong that I felt I had no choice but to self-harm; but through the act I also found some way of regaining some temporary stability, relief from that vacuum, and some control. Previously, I had kept busy to keep this emotion at bay, but as time went on and the therapeutic work continued I couldn't do enough to stop feeling the emotions: overdosing, cutting, burning, blood-letting, balancing precariously on the top of car parks and bridges hoping I could throw myself off them – I tried almost everything. By day I was going to work and pretty much managing, but in the evenings and at weekends I was either being held at the police station detained on a section 136 or in A&E. No one in the police station or in casualty could understand that such a seemingly together person who had a good job could also be so destructive and wasting their resources. I was leading a completely parallel existence. Eventually, because I was so exhausted I started to struggle at work. I took sick leave, never to return.

As soon as I gave up work, which was the only thing holding my life together, I deteriorated rapidly. My self-destruction increased to two or three times a day, I didn't sleep or eat, and my finances were in chaos. My whole life became a constant game of Russian roulette. Although I struggled with suicidal thoughts, most of the time I didn't actively want to die. I just wanted to feel safe and access help, but equally, if I died by accident as a result of what I did, I didn't care either. Let fate decide.

Eventually, this led to a point where I was admitted to hospital and was diagnosed with borderline personality disorder. I was an inpatient for 8

months. At first it was a difficult admission as my determination not to be medicated left the staff struggling to meet my needs. I did, however, manage to build up relationships with some of the more experienced staff. They helped me feel safer and they had the skills to work psychotherapeutically with me. This I found more helpful than the interventions of less inexperienced staff who tried to control me and my emotions by becoming more authoritative. This tended to escalate situations.

The team was split between those who were more open minded about working with people with borderline personality disorder and those who felt I shouldn't be treated in hospital. This was difficult for me to deal with at times as it always came across as a personal rejection. Eventually, as my ability to build relationships and to learn to trust and ask for support increased, I gained more respect from the team as a whole. This improved consistency in their approach, helped me feel that staff responses were more predictable, and this in turn helped me to feel able to trust them and ask for help, rather than self-destruct.

Throughout this time, as well as receiving support from the nursing team and psychiatrist, the work with my clinical psychologist continued. I was able to make much more progress in an environment where I felt safe. We continued to work primarily in a psychodynamic/attachment orientated way, however, some inputs from cognitive analytic approaches were very helpful in understanding the cycles and patterns of behaviour in which I would get entangled and would lead to self-destruction.

Despite the progress I made during this lengthy admission, I didn't feel that I was yet at a stage where I could survive at home again. I had a mortgage, which made options such as supported housing feel too impossible, and I still didn't trust new people enough to have care at home. A therapeutic community was therefore suggested and after some consideration and a couple of meetings with the TC's outreach team, I decided that it was probably the best way forward and a step that I now felt ready to make.

This transition was probably one of the hardest I have had to make: I was leaving the safety of the hospital and was going to have to interact with peers and to survive without parents in any form. However, the TC, although difficult, proved to be the right move. Its combination of different treatment approaches, group-therapy and its emphasis on residents taking responsibility for running the place and for each other, meant that I became more honest with myself and others about how I was feeling, making it easier to identify my emotions and access the support I needed. It also allowed me to do what I hadn't got around to in hospital—linking my past story with my current patterns of behaviour. I saw for the first time how much my current thinking, interpretation and behaviour replicated my past survival methods in the family, and how these strategies I used as a child could no longer work

as an adult. I recognised the need to learn new skills and although it sounds a simple process, the reality was that it was difficult and at times traumatic. I had to face up to the fact that, at times, I could be selfish, blame others for things that were my fault, and shut others out. I had to learn to accept all facets of myself and piece those functioning and malfunctioning parts of myself back together so that I could start to build a sense of self.

Another important thing I learned at the TC was that I needed to be my own parent and that I had the skills to do it. I had to look after myself in the way I wanted to be looked after. This would help me feel better about myself, increase my sense of self-agency, which in turn would further strengthen my sense of self. Perhaps most importantly, at the TC I learnt to interact socially. It gave me an environment in which I could learn what was acceptable and unacceptable in terms of dependency, and through the process of seeing my behaviour mirrored in the other residents, I realised the negative impact I could have on other people. After a year, when I came to leave I felt like I was functioning better than I had functioned in my entire life.

The difficulty for me was maintaining this once I had left the TC. Living a few hundred miles away I couldn't make use of the outreach services that easily and I was too far from the friends I made there to have regular contact with them. This meant that when I left the TC I was socially isolated again, having not had much of a social network prior to my admission into hospital. I was also living on my own for the first time in 2 years, and dependent on the mental health services to fill the gap the TC left behind.

I continued to work with the clinical psychologist and psychiatrist I had prior to the TC, but in addition, I also had a community psychiatric nurse. I found it difficult to work individually again after group work and I also struggled with my relationship with the clinical psychologist. Having been dependent on her before, I wanted to manage the relationship in a different way using what I had learnt at the TC. However, we both found this a difficult change and consequently we struggled to find the same engagement and level of work we had achieved previously. In hindsight, this was probably one relationship I shouldn't have gone back to, but we both found it difficult to end the relationship and we got stuck in an unhelpful dynamic for a while.

The therapeutic work, at this point, came mainly from my psychiatrist, who prior to the TC was too 'advanced' for me to engage with for any more than just a general overview for my care. However, my improved ability to articulate my feelings meant that I could now engage with him therapeutically. In my community psychiatric nurse, I had a more general support that was whatever I needed it to be. This ranged from the practical and the therapeutic to the social (as much as it could be within the boundaries of the therapist-client relationship). This flexibility was hugely helpful,

especially combined with the consistency and continuity in my care I had received before and after the TC.

Unfortunately, the lack of any social network and the loss of confidence caused by my disintegration and lengthy hospital admission caused meant that I struggled to build on the progress of the TC. Although I was managing more than I wasn't managing, I began to self-harm again, having previously resisted this urge at the TC. My CMHT helped me to keep this to a minimum by increasing visits at times of need when I asked for help and through short hospital admissions (2 to 3 days) where I could have some respite and feel safe. Also crucial in helping to keep self-harm to a minimum was the social services out-of-hours team. Although I had used this service before the TC, the calls would often escalate crises as I struggled to accept that at that time they couldn't meet my needs. However, now that I could articulate myself better and wished to use alternative methods to cope, I established good relationships with most of the team. The out-of-hours team were happy to engage in supportive conversations as long as they had time, and if they didn't they would explain that to me so that I wouldn't feel personally rejected and agree to ring me back when they had more time. This worked really well for me, as my most difficult times were at night and their consistent and predictable responses were helpful in settling me ready to sleep (with the aid of promethazine at times). This non-judgemental response allowed me to engage enough to articulate what I was feeling and to move away from the feelings (often onto mundane topics for a short while) until I felt calm enough to manage the rest of the night. Knowing that this service was there and that there was always an option to ring back made it such a huge part of my post-TC progress.

All of this helped me to maintain a much higher level of functioning. However, my lack of confidence prevented me from making much progress in the other areas of my life. I was still a full-time patient and I struggled to believe that this would ever be different. Since the TC I had found the label of borderline personality disorder a hindrance. It made me feel like a second class citizen, like I could never be normal. I struggled not to believe the myth that it was untreatable and felt that no one would want to employ me.

Despite the progress I had made, I couldn't live with the thought that my life would always be limited. I sank into a depression, and this combined with the unfortunate timing of another rape, a destructive relationship as a way of coping with the rape, a pregnancy as a result of the destructive relationship and subsequent termination, and the retirement of my psychiatrist—all in the space of about 8 months—
destabilised me so much that I ended up being hospitalised involuntarily under Section 2 of the Mental Health Act.

Although, at the time, this appeared to be a huge setback, this admission changed a lot for me. I was prescribed an antidepressant (mirtazapine) for a few months which I found really helped to lift my mood. However, towards the end of the admission when my mood had improved, I also realised that I had to make a choice—to live my life, reject the label's myths and decide for myself my limitations, or to believe the myths and accept that I would be a patient for the rest of my life. The latter was not an option to me, so after I came off the section I decided that I needed to face my fears and start to rebuild my life. I decided to enrol at university to undertake a degree in psychology. This proved to be a successful move, and one that gave me a good balance between commitment and space for me to manage myself and the transition I needed to take me from being a patient back to a being a functioning member of society. It also allowed me to gain confidence in an environment that didn't ask too much of me most of the time. It enabled me to get to a point where I had a social network, an identity other than 'patient' and feel able to leave behind my last connections with the service, my community psychiatric nurse, and the social services out-of-hours team.

I did it—I am no longer a patient. I completed my degree, and am managing to work full-time. I no longer consider myself to have a diagnosis of borderline personality disorder. I have none of the symptoms and when I look around at other people I don't seem to be any different from anyone else. The only time I feel different is when I recognise that my journey to this point in my life has been a lot more complicated than many people I come into contact with. However, when I look around I also see myself handling situations more competently than many other people. I have gained in strength and resilience as a result of my experience of handling such intense emotions, which means that I am not easily overwhelmed by life's challenges. I'm not perfect though. I still have bad days, but talking to friends, so do most people. I really am no different. I no longer have thoughts of self-harm. My moods are more recognisable as normal, and my sense of self is much stronger and doesn't fragment anymore. In addition, I am more open, and able to recognise, contain and talk about my emotions. I can also manage friendships and intimate relationships. The only thing that is remotely borderline personality disordered about me now is that I can still remember how it felt to be that way—but it is just a memory.

4.2.4 Personal account C

For me having borderline personality disorder is having constant and unremitting feelings of unbearable and overwhelming sadness, anger, depression, negativity, hatred, emptiness, frustration, helplessness, passivity, procrastination, loneliness and boredom. Feelings of anxiety are like silent screams in my head and it is as if masses of electricity are channelling through my body.

I feel unloved and unlovable and constantly doubt that anyone likes me or even knows I exist. Both my body and mind feel like they are toxic and polluted. I always felt dirty and scruffy no matter how many baths I take. My sense of physical self is constantly changing—I am not sure what I look like and my facial features keep changing shape and getting uglier and uglier. Mirrors are terrifying—I always think I'm fatter or skinnier than I am.

Sometimes it seems like people are sneering and laughing at me all the time and attractive women look at me like they are murdering me with their eyes. Other times it is as if I am invisible. At times I hate everyone and everything. Ideas about who I am and what I want to do fluctuate from week to week. My perspectives, thoughts and decisions are easily undermined by what other people think or say and I often put on different voices to fit in. I am never satisfied with my appearance, but then I am never satisfied *per se*—perfect is not even perfect enough.

My feelings lead me to self-medicate with alcohol and food and to overdose. I slash my arms, chest stomach and thighs with a razor blade and constantly think about killing myself or visualise my own death.

I have also had some hallucinations, such as the devil's face appearing on the wall and talking to me in Latin and the devil coming into my flat in the guise of black poodle and me putting my hand inside its body. I also have headaches, panic in my stomach, and feel sick and tired all the time. It is often hard to get to sleep and I have horrific nightmares.

Signs of my emerging personality disorder started in early childhood in the late 1960s/early 1970s. I was so disturbed that my adoptive parents had to put bars over my windows because I used to throw all my toys and bed linen out of the window every night and they where worried I would fall out.

I was told that I was adopted very early on and have no memory of ever thinking that my adoptive parents were my real parents. As far back as I can remember I used to pray that my real Mum would rescue me. When someone came to the front door I used to rush towards it shouting 'Is that my Mum? Has she come to get me?' My Nan remembers me asking women in the supermarket the same questions. I also pleaded with any women teachers from infant school upwards if they would adopt me.

I was a very disruptive, naughty child who wanted so desperately to be loved and accepted by my adoptive family. I had behavioural problems and used to rock backwards and forwards going into a trance-like state for hours everyday. I had terrible insomnia from early on and would repeatedly bang my head on the pillow and make a droning noise to distract myself from the unbearable agitation that I felt. This behaviour ignited a cycle of physical and emotional abuse at the hands of my adoptive parents who did not understand

the mental distress I had to endure on a daily basis. My father, exasperated that he couldn't sleep because of my head banging, used to come into my bedroom and punch me until I stopped. I used to have dreams where the devil would tell me to go into my parents' bedroom and smash my Mum and Dad's heads in with a hammer.

My father was a rigid disciplinarian and I quickly became the black sheep of the family—the source of all the family's woes and misery was my fault. I spoilt everything. I was to blame for everything. They went on family days out and I was excluded for being naughty, locked out of the family home, and left sitting in the back garden on my own for hours on end until they returned, happy that they had had a fun day out without me around to spoil it for them. I used to deliberately say all my Christmas presents were a load of shit to annoy them and ceremoniously smash them all up on Christmas day in utter defiance then eat as much chocolate I could until I threw up. I often spent Christmas day banished to my room.

I was a habitual liar at school telling my friends that I went on amazing holidays and had all these amazing toys (when the exact opposite was true). My father often withheld presents and instead gave them to my brother and sister to punish me. To punish me further he refused to fund school trips and would even ration the sweets my Mum bought me in an attempt to control my behaviour.

I started to dress in increasingly attention-seeking clothes. I used to bite my nails down so far they would bleed and were very painful and as a punishment I was told my pocket money had been stopped for 5 years.

One time after I refused to rake the back garden my father beat me with the rake. I ran into the kitchen hoping my Mum would protect me but she grabbed me so that my Dad could beat me some more. I grabbed a carving knife and tried to stab her so she'd let me go. I was beaten severely for this and after that they contacted social services requesting I be put in a home for maladjusted children. I was 12 years old. Social services tried to work with the family to overcome our problems but my parents refused to attend the therapy sessions and I had to go on my own. When the decision was made not to send me away my father was so angry he just used to act as if I didn't exist. The rest of the family tried their hardest to get on with their lives but the silent aggression from both sides made me run away and spend hours on my own in the woods reading my comics. It was during this time that I started to feel suicidal and constantly tell my Mum and Dad that I wanted to die to which I was told that I had growing pains.

I hated my Mum and Dad and wished they where both dead and constantly spat on their food and urinated in their drinks if I could get away with it. I used to bully my younger brother because he was their flesh and blood and

mercilessly beat and threatened both my brother and sister until they cried and begged me to stop. I started to set fire to things and torture insects. I prayed to the devil that people I hated at school would be killed in horrific accidents and I used to steal from my parents and smash my brother's and sister's toys to punish them. I remember watching the film 'The Omen' and thinking that I was the antichrist.

I was very disruptive at school and repeatedly got the cane for verbal attacks, such as calling the headmaster a 'cunt' to his face in assembly. Even at junior school when I was 10, my father told me to tell my teacher she was a 'stupid bitch', which I did and got into a lot of trouble.

By 14 I had started sniffing glue to escape the misery I felt and also experimenting with cross-dressing. I was often sent home from school for wearing women's clothing. I started to alienate the few friends I had by doing this but I thought I was the messiah and they would all worship me one day.

My father hated my emerging transvestism and smashed my make-up box to pieces and forbade me from wearing any women's clothing around the house. The threat of being thrown out onto the street was made constantly. I went on hunger strike and stopped swallowing my food. I used to store all the rotting mouthfuls of half-digested food in shopping bags in my wardrobe.

I left school in 1983, failed to get into college and was on the dole for 3 years. During this time my eating disorder worsened and I developed severe acne. I drifted through the 1980s in a haze of solvent abuse and, due to my terror of women, found some relief in pretending to be homosexual.

The slow decline into hell that started in my childhood gathered pace during my twenties. I had one serious relationship with a girl but it was stormy and complex. I used to feel nausea after sex and constantly behaved like a homosexual and lied about my sexuality to her. In relationships I have an intense need for constant reassurance; and when I try to hold back I get unbearable feelings of panic and fear of imminent abandonment. I also find it very difficult to trust people.

I went through a particularly intense stage of religiosity in 1988 when I became a Jehovah's Witness but I very quickly started to feel disconnected from everyone in the congregation and habitually fantasised about murdering and torturing them.

When my relationship ended I stated to drink heavily and self-mutilate, which led to my first contact with mental health services in 1990 at the age of 23. I saw my GP first, who referred me to a consultant psychiatrist. After three lengthy assessments I was told I had symptoms of a classic disorder, but that it could not be treated with medication. I was formally discharged from

services never knowing what the disorder was. Because of this I believed that the psychiatrist thought I was making it up.

My parents, who were divorced by this time, had the sense that because I had been discharged there mustn't be anything that wrong with me. My parents and friends also thought I was making it up. I was left thinking that my problems were not real even though I constantly felt suicidal and my behaviour by that time was very extreme. People thought I had mild depression or was just an attention seeker. I was put on an antidepressant by my GP. But my depression, drinking and self-harm worsened and I constantly spoke of suicide. After I did try to commit suicide in 1991, I was given ten or twelve 1-hour sessions of CAT. This made no difference whatsoever and I continued to deteriorate. In 1993 after another suicide attempt I had 20 sessions of CBT but this also did nothing to help me.

In the early 1990s I was reunited with my real parents. This was not without problems. After I was told that my mother attempted to have me aborted I started to despise her and fantasise about murdering and torturing my real parents as well. I particularly hated my real sister.

I endeavoured to try and reconnect with them in 1997 after I was made homeless and had been living in a drug psychosis unit for 13 months because there was nowhere else to put me. I didn't have psychosis and often wondered why I was allowed to stay there. It was during that time that a junior staff member broke her professional boundaries and told me I had borderline personality disorder. I misunderstood what she had said and thought it meant I was on the borderline of having a personality disorder, and therefore was not that serious (even though I felt suicidal all the time).

After this I was housed in an old people's block on my own and rapidly spiralled out of control. I used to over-medicate with all the drugs I was taking: would take a cocktail of SSRIs, sleeping tablets and alcohol that would make me go into a trance. I used to do this on a daily basis and just lie in bed all day in a haze rarely getting dressed or leaving the flat. I couldn't look after myself and lived off the same meal everyday: cornflakes, saveloy and chips.

My flat was undecorated and I slept on a mattress on the floor. I was obsessed with perfection and spent hours redoing the same small DIY jobs over and over again compelled by a vision of my dream home. In reality I was living in an uncarpeted unfurnished flat with no furniture and which was covered in plaster dust from my endless attempts to make all the walls perfectly flat and smooth.

In the late 1990s I had a few therapy sessions for body dysmorphic disorder, but the therapist seemed very under-trained. She was a nice person and seemed to care, but she said that everyone has a personality disorder. She

used to give me photocopies from books to read which were of no benefit whatsoever.

The thing that finally had an impact on my symptoms was attending a therapeutic community from 2005-2006. It enabled me to make some progress, to understand myself, understand boundaries, and to see the effect my behaviour had on others (a massive deterrent). I was able to start loving myself and to have respect for myself and others. It also allowed me to break my dependency on my real mother, to gain insight into my cognitive distortions, to learn how to make and keep friends, how to manage destructive impulses and to ask for help. I had not realised that the label 'personality disorder' was so stigmatised until I went to the TC and met other sufferers. However, even with a year in intensive therapy at the TC I still have only improved in some areas and will need ongoing support and help and further treatments.

After I left the TC, my consultant psychiatrist was advised that I should remain on an enhanced care programme approach, but he ignored this advice and withdrew my access to a CPN and the self-harm team. In my first outpatients appointment after leaving the TC he angrily raised his voice and told me 'there was no scientific evidence to show that you will ever improve'.

Borderline personality disorder has had a serious impact on my life. I can't concentrate for very long and I get confused by what people mean. My obsessions about perfection get in the way of doing almost anything practical and I can't complete tasks. Although I crave perfect order I live in total chaos, with rubbish, clothes, crockery and magazines strewn all over the place. I live in absolute squalor and never have any motivation to tidy up because getting perfection is so stressful I don't even want to try. I am unable to make plans and keep to them and I find it almost impossible to make decisions. I get bored and agitated very easily and thoughts go round and round in circles in my head. To most people boredom is endurable, but when you've got borderline personality disorder boredom is a killer. You're too unmotivated and hate yourself so much that you don't want to do anything, go anywhere or see anyone. Boredom will make you self-harm and start that fever pitch agony of wanting to commit suicide. I have hair trigger explosions of intense feelings. Sometimes I feel so excited about doing something it's as if I could conquer the world then a couple of hours later it just seems like a load of bollocks. I can't decide what I want to do with my life. I find it difficult to work unsupervised and I have started college courses but then I get angry with the other students and end up hating everyone, giving up and lying in bed all day for weeks on end.

It has also seriously impacted on my relationships and I find it very difficult to make friends. I feel angry that people don't understand me and in turn people are frightened by my rages. I am terrified of engaging in conversation

people I've not met before because I am worried they will think I'm boring. I love people one minute and then hate them and want to hurt them the next. Likewise, I can fall in love with some one almost instantaneously then be repulsed by them in a matter of hours. I can be abusive then feel terrible remorse and fear being abandoned. I have sexual feelings but can't have sex; this drives me insane as the hunger never goes.

My condition has changed since leaving the TC but not as much as I'd hoped. Some of the feelings are not as extreme as they were before I went there but because I refuse medication some are even worse. I'm learning how to deal with them better but I still relapse and battle with suicidal and violent feelings, and my obsessions around perfectionism are still really bad. I still self-harm but realise it is futile and I am alcohol dependent; if I'd got some help when I left the TC I would not have started self-harming or drinking again. I also have problems cooking and looking after myself. However there are some days when I like who I am more than ever and I feel happier than I ever have done in my entire life. I am also in a relationship, which although is a bit unhealthy at times, is not as co-dependent as in the past, and I have made improvements to make it work.

In order to try and stay well I reassure myself and assume that things will be positive. I relax more and meditate on what I want and not on what I don't want. I have a gratitude list of all the good things in my life that I read when I feel bad. To help with my self-esteem I try to take a pride in my appearance. I attend Alcoholics Anonymous, which is helpful although I find the interactions with other alcoholics can be problematic at times. I try to be more 'boundaried' with my emotions and read as much as I can about personal growth and recovery to give me hope. I keep myself busy and avoid people and situations that wind me up. I also try to have contact with other people recovering from borderline personality disorder at least once a month.

4.2.5 Personal account D

I don't know when I was first diagnosed with borderline personality disorder, but the first time I knew about it was when I read it on a report, about 5 years after I had been initially referred to psychiatric services. I was totally horrified and ashamed. I thought I was one of the 'untouchables', one of those patients I had heard described as untreatable and extremely manipulative by health professionals whom I regarded as highly competent. I fell into deep shock and crisis for some time after.

When I was a young child I was over-sensitive and needy, constantly acting out for attention. Unfortunately both my parents were ill-equipped for parenthood: my father was an alcoholic and my mother had her own mental health problems and never even wanted children. Early on I became the runt of the litter, constantly bullied and shamed, so I learnt to trust no one and keep to myself. This was an impossible task for someone with my personality.

At age 32 after having been severely bulimic for many years, and still not having managed to kill myself, I sought psychiatric help. This was initially an eating disorders unit. The staff there were very kind, but I always felt that they didn't know what to do with me. I felt like I was disintegrating.

I had two stays in the eating disorders unit with the second being followed by 5 months in a drug and alcohol rehabilitation unit, all of which helped regulate my behaviours. But without my usual coping strategies (alcohol, drugs, food and cutting) I had no way of surviving what felt like such a cruel and dangerous world. So despite doing everything I had been taught for a while, and despite all my determination to be well, I eventually succumbed to my old ways of coping. As all my treatment had been aimed at stopping them, I fell back into the bottomless pit of shame and disgust, only to then be forced back into hospital or a crisis unit for a short respite. My stays in both the hospital and the crisis unit were invaluable at those times of crisis, because they were time-limited and managed appropriately. As I had a strong need to be looked after and be rescued from myself, it was essential for me that it was like this.

But despite weekly psychotherapy, and regular appointments with several different health professionals, none of it was getting to the root of the problem and my admissions were becoming more frequent. So eventually I was admitted to a specialist day unit for borderline personality disorder. Here for the first time I was not looked at as a set of behaviours and stuck in an appropriate box. Instead I was seen as an individual with my own problems that staff wanted to learn about and help me with. Finally I felt listened to and understood as people could see me as a whole set of problems rather than looking at the individual bits of me. During my time at the unit I learnt that I use what others see as unhealthy coping strategies; to some extent they work for me and they are what I have known for almost 30 years. There are times where I do fall back on them because life can feel just too painful and frightening without them. I use them as my armour to protect me from the outside world. So my goal changed from giving up all these behaviours to minimising them instead and not to shame and humiliate myself when I once again fell back on them.

My relationship with my psychiatrist is very good and I trust him implicitly as he has always tried to understand, and has always been totally reliable and consistent. I also know I can contact him between appointments if I am not able to cope and he will try to see me. This gives me a lot of strength and so reduces the need to contact him as a result.

I have also been one of the lucky few who was in the first instant referred to my local hospital, which has very good specialist services such as dual diagnosis, an eating disorders unit, a crisis unit and specialist psychotherapy

services for borderline personality disorder. But I was plagued by long waiting lists and being passed from one health professional to another until I was given the right treatment.

I have always tried to find support groups to help myself as much as possible and help me through the gaps in between appointments. I have found these invaluable and very supportive, even though I felt there was a big gap between other people's problems and my own.

Borderline personality disorder affects my entire life, from the minute I get up to the minute I go to bed, although to a much lesser degree than it used to. But all day I have the misery of sitting in my flat by myself everyday because the fear of being with people is still greater than the fear of being alone; the sleepless nights and tired days, so that I can only work a few hours before feeling exhausted; the continual racing mind and appalling concentration, which makes conversations hard to follow; and feeling battered and hurt constantly by people due to my over-sensitivity. But on the worst days I'm learning that the safest and kindest thing I can do for myself is to climb back into bed for the day until the suicidal thoughts abate.

I'm learning to live life, which is often filled with pain, fear and mental torture, but I'm also learning that some days are better than others. I'm learning to accept my fragilities: that there are many everyday things that feel impossible to me, as well as many things that I do to myself in the secrecy of my flat that others would be totally appalled by. It all seems manageable so long as I don't compare myself and my mess of a life with others.

With no close friends or family and only razor blades, food and alcohol as my allies, I guess borderline personality disorder continues to be my only close friend.

4.2.6 Personal account E

I am the biological mother and carer of my son, who has borderline personality disorder. He was adopted and when we met in 1991, when he was 24, it was obvious he had some kind of mental health problem. In 1990 he was referred by his GP to a consultant psychiatrist at his local community mental health service. Suffering with obsessive behaviours, social phobias and eating problems, the final straw came when making an item of clothing and he had totally lost control. After several weeks of assessment he was told he had symptoms of an unnamed classic disorder that could not be treated with medication; the consultant told him there was nothing more he could do for him and discharged him from his care.

Once I got to know my son he eventually told me about his obsessions concerning his body and clothes, his aggressive thoughts, and his drinking and self-harming. He told me that when a relationship with a girlfriend had

ended he made massive cuts with a razor on his chest and arms and put bleach in them. He covered up his initial self-harming episodes and he was left with hideous scars. He also told me about his physically abusive childhood and lack of emotional bonding with his adoptive parents.

I was beside myself with grief, appalled that nobody seemed to care enough to help or listen to my son's very distressing story. He went back to his GP who gave him antidepressants and arranged a course with a local counsellor. Looking back now this seems to me to be wilful neglect as he fell deeper into an abyss of misery.

This was all new to me but at that time I felt sure that with my support and further help there would be a light at the end of the tunnel. However, I watched him deteriorate even further over the next 5 years with no real support or constructive treatment from his CMHT. His adoptive mother couldn't cope with him and in 1994 when she decided to sell the family home she told him to leave. This threw him into total chaos and bouts of extreme anxiety and excessive anger, which he turned in on himself. At this time he seemed to draw away from me and for about a year had only spasmodic contact. He seemed to find some solace in the fact he was given a social worker who seemed to be trying to sort out his life for him while finding a place for him in a hostel.

The hostel was for people with schizophrenia and those with drug psychosis. He received no treatment and had only spasmodic visits with a consultant psychiatrist when in crisis. I felt totally helpless for the next 2 years as I watched an extremely intelligent and articulate young man with real creative talent living a distressing life, cleaning toilets to earn money, having no social life, taking antidepressants, drinking to excess, self-harming and attempting suicide by taking an overdose and slashing himself severely.

During this time my son learnt from a female member of staff at the hostel that he had borderline personality disorder. This was a lapse on her part and totally unprofessional, but at least we now knew. We mistakenly assumed it meant that he was only on the borderline of something, not having a full disorder, so we didn't really see it as that serious. Nobody told us any different and we were left floundering in the dark.

I could not bear to see my son suffering at the hands of his local CMHT any longer so in 1996 I asked him to stay with me temporarily and offered him some work in my office, which was a creative environment, just doing simple tasks that would keep him occupied. His care was transferred to our local CMHT under the care of a consultant psychiatrist. I remember thinking that at last, with a new mental health team, we had hope, we would be able to access better treatment and perhaps begin to understand what was really the

problem. With my love, care and support and real treatment I thought I would see my son at last living a life he really deserved.

What followed then was the most traumatic 10 years of my life. The glimmer of hope we had at the outset was soon to be extinguished. The local trust was worse than my son's previous area. The people who had been entrusted with his care treated him with neglect and total disregard for his feelings yet again.

My son has been given so many diagnoses: in addition to borderline personality disorder he has been told he is body dysmorphic, schizotypal, schizoaffective, and obsessive-compulsive. Sometimes when I asked the consultant for more information he denied he had even given that diagnosis—he changed it so many times he couldn't remember what he had said. The consultant never explained anything in great detail, all he seemed to do was prescribe medication and tell us both to be patient. He told us that the local trust was running with restricted budgets and staff and that there were no trained therapists because of maternity leave. He took months to follow things up and lost important letters. I complained there was no CPN but the consultant said there was no need for one. My son was never taken seriously and was told on numerous occasions when expressing his feelings of suicide that he didn't feel suicidal and should stop saying it. His anger grew and grew.

My son also met with no understanding from others, such as nurses who attempted to stitch his cuts with no anaesthetic. He was handled roughly, without any sympathy or care, and with an attitude of 'Oh well, you did this to yourself'. Usually when he was discharged we would go home with him caked in dried blood because nobody had bothered to clean him up. On more than one occasion I came home to see a noose hanging from the banisters and blood everywhere.

I also complained that my son's social worker was hardly ever available, especially in a crisis. She curtailed and cancelled appointments and gave him misinformation about housing. On one occasion when I was stressed and just couldn't take anymore I took my son to the CMHT and wanted to leave him there. All the staff did was leave us both in a room and kept telling me there was nothing they could do, our consultant wasn't available and to go home. In the end when I had calmed down I did go home, feeling totally defeated and completely alone.

Around 1998 it seemed that body dysmorphic disorder was the main diagnosis. A friend of my son heard of a specialist in her area and found out we could see him privately. After seeing my son the specialist agreed that his condition was extremely severe and needed lengthy inpatient treatment. He did not agree with the drugs regime he had been given—a cocktail of antipsychotics, mood stabilisers and antidepressants. However, it was a

private clinic, and while they had some funding arrangements for some NHS trusts, this did not include ours. We would have to fight for a place—and fight I did. We were told by our trust that it was procedure to apply to a hospital that the trust had connections with; if they denied him access to their programme then he would automatically get funding for the private clinic. This process took over 2 years, with much prompting and demands from me. After waiting a very long time for an appointment at the hospital and being told that they could not give him the 24-hour support he would need, they said that the private clinic would be the best place for him. I felt so relieved that at last he would get treatment from somebody who really understood him. But soon our hopes were dashed again. The hospital changed their criteria—there was inpatient treatment available after all. My son was in total despair about this which led to more self-harming, and further suicide attempts.

During this period my son lived in total chaos even though I tried on a daily basis to help him cook and tidy his room and to learn coping strategies. One time I came home to find the house had been totally trashed, windows broken, furniture thrown outside, and armed police at the property asking if I wanted to press charges. The house was full of blood. He was sent home the following morning and there was no visit to assess if he was a danger to himself or me. With all this aggression it was obvious that the inability to be heard was growing and growing, but nobody was listening.

Because of the above episode my son was sent to see a forensic psychiatrist. She assessed him and wrote a report. We were not allowed to read this at the time, although when we subsequently made an official complaint we did see the notes. In this report the consultant said that my son was a danger to me and that it was in his best interest not to live with me. And yet they allowed us to live together for a good many years after this episode. He was becoming more and more dependant on me and would have anxiety attacks if I were ill or had to travel any distance in my car. He was afraid that I would not return or die.

On another occasion when I had gone to bed, he tried to kill himself with exhaust fumes from my car. Luckily the car was parked on a public road and someone banged on the window. He came staggering into my bedroom and dropped unconscious to the floor. As I waited for the ambulance, I held him in my arms and remember thinking that he was going to die. The ambulance staff were very supportive and caring but at the hospital it was seen as just another suicide attempt, and he received no sympathy.

I just had to keep going, keep working, and keep looking after my son. I was the only one who seemed to care. I wanted to scream from the rooftops, 'SOMEBODY HELP US PLEASE'. But I was also beginning to resent having my son living with me. I began to see my son as the disorder and forgot that it

was an illness, but his behaviour around the house and in my office was becoming intolerable. I was totally overwhelmed by the enormity of it all—I was trying to run my own business, pay all the bills, and single-handedly (I had separated from my husband) cope with my son's mood swings, self-harm and aggression. I begged his social worker to find somewhere for him to live apart from me and she told us she had found him a place at a shared housing scheme. He was shown a room and felt quite happy about it, but then we were told they could not accept him because he had borderline personality disorder. One would have thought that a social worker, working in this area with vulnerable people, would know this. So yet again his hopes were raised and then dashed.

By this point, as the social worker knew, my relationship with my son was very strained. We began to argue all the time, and I went from being an outgoing and fun person to someone who didn't sleep, was very tearful, and extremely stressed. Like my son I felt I was gong down the same path of wanting to give up—I wanted to climb into bed and never wake up. I was assessed for carer support, but I didn't need money I NEEDED TREATMENT FOR MY SON. If someone had taken us seriously I feel we would never have been allowed to get into this awful situation. In the end I saw a counsellor whom I found and paid out of my own money. In all these years I have had no support whatsoever. I was not told how to deal with personality disorder; all I have gleaned is through books that I have found by searching on the web and purchasing myself.

Finally in 2004 after several failed attempts of gaining appropriate treatment—which included brief and ineffective sessions of CBT with poorly trained therapists whose expertise extended no further than a cup of tea and a chat and giving him photocopies from books to read—and continued episodes of self-harm and overdose,
his consultant psychiatrist, who had expressed his own frustration that my son wasn't making progress despite the fact he had never been offered any significant inpatient treatment, informed us in a very offhand way that 'there may be somewhere that can help you, we have just sent someone here, just don't know what else to try, this is last thing'.

This 'last thing' turned out to be a therapeutic community run on democratic lines for people with severe personality disorder. After several agonising months of waiting my son was accepted in the summer of 2005 for the year-long programme.

We have found out since that the CMHT had in fact been sending patients there for a number of years and that it did not cost them a penny. This infuriated us because my son was told he could not access treatment due to local PCT funding issues. I feel that the consultant wasted a good 10 years of my son's life through ineptitude and prejudice.

The TC helped my son to gain a sense of who he is and work through the pain of the abuse he suffered as a child. This was something he was never allowed to express in all the previous years because his consultant psychiatrist said it wasn't good to go over the past. It was a very challenging regime but it is a testimony of his will to succeed that he got through the year at the TC. I am very proud of him. My son's stay there changed his life for the better and immediately after his release he was extremely hopeful. For the first time since I had known him, I could hear his enthusiasm and optimism for life loud and clear. He was confident, had self-esteem and made plans for the future, registering at our local college for a course, working towards some qualifications in art therapy. I was so delighted and relieved that at last, at the age of 40, he could begin to lead a better life.

In that year I also went into therapy, which I continue to this day and have funded by myself, to try and unravel what had gone on in those past years, to come to terms with my son's adoption, his abuse by his adoptive parents, and our relationship. I slowly began to get my life back, and to understand what my son's diagnosis actually means. I have read and researched so much and I have made new friends and been happier than I had been in years. Above all I have learnt to make boundaries, which I have tried hard to stick to since my son's discharge. This has led to my son having a lot of ill feeling towards me, which I find very distressing. However in therapy I am learning to deal with this. I can only hope in time he will come to see that the decisions I made about him living and working independently from me will serve him better in the long run.

So finally there seemed to be a light at the end of the tunnel, but we were proved wrong.

The TC offered outreach support, a weekly meeting held in London for 6 months, and they also put together a care package of support to help my son through the initial release period and help him sustain the massive gains he had made. They liaised with our local CMHT and consultant psychiatrist, and his CPN (whom my son had not met before) attended two CPA meetings to make sure everything was in place prior to his discharge and ready for his aftercare. They advised his consultant that he should remain on an enhanced CPA to help him through the initial period post-discharge. But in their ignorance they denied him this, withdrew the CPN in the first week after he left the TC, and said that my son had made improvements and lowered his CPA level. He was not given a key worker or social worker. He was denied access to an emergency phone support network and told to make an appointment to see his GP if he felt suicidal. We tried to complain and saw our local MP in the hope his intervention would effect a turn around. The TC staff requested a meeting with the CMHT to try to persuade them to reconsider their disastrous decision to ignore their recommendations. This

was immediately refused and the week that my son was discharged the CMHT told him they no longer wanted him on their books. They said that because of his improvements they had nothing more to offer. The consultant even challenged the legitimacy of personality disorder as a real diagnosis telling my son he had to look after people with real mental illnesses and that there was no clinical evidence that he would ever fully recover. My son requested another consultant, but this person said the same kinds of things.

Since then my son has floundered. He has started to drink and self-harm again and last summer took a very serious overdose. He gave up college because his diagnosis leaked out and certain members of staff started to treat him differently. He fought extremely hard against all the odds to keep going without medication and with the support of the friends he made at the hospital.

Then we found out that at the time he was discharged from the TC the PCT had set up a personality disorder community support project about 10 minutes' walk from my son's flat. The CMHT had failed to mention this even though in a meeting with the TC they were asked if any such services were available in the area, as the TC was aware that at that time PCTs where being given funding to set them up in most areas. To date my son has not been offered a place there. At one time he paid to see a therapist for weekly sessions at a local counselling centre; when he told them of his diagnosis the therapist terminated the therapy.

I was trying to keep to my boundaries of supporting him to live independently but the fact that he was receiving no support from the local CMHT only made me feel compelled to help. This was driving him back to me, something he didn't want, but there was nobody else. All the professionals have advised us about us keeping healthy boundaries, which we have tried to do, but it's extremely difficult for my son who has no network of support. He has the friends he made in the TC, but sometimes this only adds to his anger and feelings of neglect because they live in areas that offer far more support. If he had received help and support from the appropriate channels I feel our relationship would now be stronger. However, it's falling apart because he feels I neglected him when he needed me.

Recently he has been offered 12 weeks of therapy by the head of the psychology department of our local trust. We believe this is a result of our official complaint that is still ongoing. He also applied for an art foundation course at the same college but was rejected. He was told that with his diagnosis he would not cope. He ended up doing a pre-foundation course, which is so elementary that he is unstimulated by it. His tutors could see he wasn't being stretched and his talents far exceeded the basic lessons.

It seems that whichever way he turns he is blocked by prejudice and outmoded beliefs. At this present time feelings of hopelessness permeate his waking hours and his extreme anger has returned. With two recent suicide attempts I have to face the fact that one day he may take his life. This would be such a tragedy for such a loving, caring man who is torn apart and struggling without help and understanding. He wants to stand on his own two feet and is not allowed to. He was so close to having a real life and through wilful neglect he is sliding back to how he was before.

Only through public awareness and the education of professionals in all areas will people suffering from this disorder get the real help and support they need. The biggest issues for both my son and me is being heard, understood, and having one's feelings validated. I also believe that it is valuable for professionals to hear the carer's views on the disorder. With help, education and support, carers could be an even greater asset than they already are and be properly recognised for the support that they give.

My son has a long way to go and sadly has slipped back for now, but he has made big strides forward since his stay in the TC and he has the confidence to fight for his right to appropriate care and support.

4.3 Review of the qualitative literature

4.3.1 Introduction

A review of the qualitative literature was conducted to illuminate the experience of people with borderline personality disorder in terms of the broad themes of receiving the diagnosis, accessing services and having treatments. It was recognised by the GDG that the search of the qualitative literature would probably not capture the breadth of service user experience, which may include considerable periods when people with borderline personality disorder are not in treatment. It should be noted that the qualitative evidence was limited with regards to the treatments reviewed, with an emphasis on dialectical behaviour therapy (DBT), and very little on therapeutic communities to support the positive statements made in the personal accounts above. The literature on self-harm was not reviewed for this guideline (see the NICE guideline on self-harm [NCCMH, 2004]).

4.3.2 Evidence search

In order to draw on as wide an evidence base as possible the GDG asked the clinical question:

What is the experience of people with borderline personality disorder of care in different settings?

The most appropriate research design to answer this is descriptive material collected from the first-hand experiences of service users, either from one-to-

one or group interviews or focus groups, or from surveys. This kind of material can either be presented in a fairly 'raw' state or it can be subjected to analysis using a theoretically driven qualitative methodology, such as grounded theory or discourse analysis.

In order to source such material, a search for published studies was undertaken which was supplemented by a search of the grey literature. The electronic databases searched are given in Table 4. Details of the search strings used are in appendix 7.

Table 4: Databases searched and inclusion/exclusion criteria for studies of inpatient care

Electronic databases	HMIC, MEDLINE, EMBASE, PsycINFO, CINAHL
Date searched	HMIC: database inception to January 2007; others to August 2007
Update searches	March 2008; May 2008
Study design	Qualitative studies, surveys, observational studies
Patient population	People with a diagnosis of a personality disorder
Additional search terms	Health services; patient attitude, participation, experience or views
Outcomes	None specified

Ten studies were found which contained material relevant to the clinical question. See Table 5.

Table 5 Studies of service user views of services

Study	N	Diagnosis	Research design
Crawford *et al*., 2007	Approx. 190*	Cluster B and C PD	Individual interviews and focus group
Cunningham *et al*., 2004	14	BPD	Semi-structured interviews
Haigh, 2002	14	PD	Summary of views
Hodgetts *et al*., 2007	5	BPD	Semi-structured interviews
Horn *et al*., 2007	5	BPD	Summary of views gathered during semi-structured interviews
Hummelen *et al*., 2007	8	BPD	Semi-structured interviews
Morant and King, 2003	15	BPD	Semi-structured interviews + questionnaires + routine clinical data
Nehls, 1999	30	BPD	Interviews
Ramon *et al*., 2001	50	PD	Semi-structured interviews + questionnaires
Stalker *et al*., 2005	10	PD	Interviews with analysis based on grounded theory

PD = personality disorder; BPD = borderline personality disorder

* up to 10 service users and 3 carers at each of 11 sites, plus 6 service users for a focus group; final numbers not given

4.3.3 Diagnosis and stigma

The experience of receiving the diagnosis of borderline personality disorder and issues surrounding the 'label' and the stigma associated with it were reported by six of the included studies.

Horn and colleagues (2007) summarised the results of semi-structured interviews conducted with five service users with a diagnosis of borderline personality disorder, focusing on their understanding of the diagnosis, how they thought it had affected them, their view of themselves and others' views of them. The following themes were identified.

Knowledge as power—For service users this was both positive and negative. Knowledge of the diagnosis and professional opinions was experienced as power, both for the service user and for others. For some the diagnosis provided a focus and sense of control, for example the 'label' could provide some clarity and organisation of the 'chaos' experienced by the service user. However, for others, who had been given little information or explanation about the diagnosis (and what information they were given tended to be negative), the diagnosis represented knowledge withheld and the viewing of others as experts.

Uncertainty about what the diagnosis meant—While for some service users the diagnosis led to a sense of knowledge and control, for others it was not useful and too simplistic. It did not appear to match their understanding of their difficulties, and service users were left feeling unsure whether they were ill or just a troublemaker.

Diagnosis as rejection—Some service users described diagnosis as a way for services to reject them and withdraw from them. This judgement was accepted and internalised by some service users, which led to service users in turn rejecting services if they were offered at a later stage.

Diagnosis is about not fitting—Some service users' felt that that diagnosis was being used because they did not fit into any clear categories. They spoke of the diagnosis as a way for services to say that they could not do anything for them – a 'dustbin' label.

Hope and the possibility of change—Feelings of hope were related to the treatment a service user was offered. Inevitably if they were told that they were untreatable this led to a loss of hope and a negative outlook. The name of the disorder itself suggested a permanency, and service users questioned the use of the 'label' itself as a result, feeling that different terminology could engender more hope. Service users also found that they gained most support and hope from people they could trust and who treated them as a person and not as a diagnosis/label. For some these relationships led to a position where they felt able to question the diagnosis.

Summary—Horn and colleagues (2007) suggest that clinicians need to be aware of and sensitive to the impact of the diagnosis; clinicians should engage in discussion about the diagnosis and focus upon what may be useful to the individual user; clinical interactions should be characterised by trust and

acceptance; service users should have clear communications about what 'borderline personality disorder' means; and that service users should receive the message that people do move on from this diagnosis. Finally, clinicians should listen to users' own descriptions of their difficulties.

In a study by Crawford and colleagues (2007) diagnosis caused service users to have mixed views, largely due to the implications for accessing services. Many service users reported being denied services due to the diagnosis. Some felt that the terminology used was negative (having a 'disordered personality'), that stigma was attached to the diagnosis, and that they were stereotyped and judged by doctors. Some service users thought it was unfair to be labelled with such a derogatory term when they felt that the disorder had developed due to abuse at the hands of others—diagnosis made them feel like victims again. Others felt quite sceptical about the diagnosis having received a number of different diagnoses during their history of accessing services.

However, some service users welcomed the diagnosis, feeling that the symptoms fitted them quite well, and feeling some relief at having a label they could identify with. Service users were more positive about the diagnosis where the services they were accessing had a positive approach to the disorder and where they had gained a sense of shared identity with other service users (Crawford *et al*., 2007).

In a study by Haigh (2002), which summarised the thoughts of fourteen service users on services for people with personality disorder in south England and the Midlands, people with personality disorder tended to feel labelled by society as well as by professionals after receiving the diagnosis. There was a feeling that many professionals did not really understand the diagnosis, instead equating it with untreatability. Other professionals did not disclose the diagnosis to the service user. Once the diagnosis was recorded, service users felt that the 'label' remained indefinitely and often felt excluded from services as a result. They described having the label as being the 'patients psychiatrists dislike' and felt that they were being blamed for the condition. For others, though, receiving the label was a useful experience, giving some legitimacy to their experience and helping them begin to understand themselves. Many felt that there was little clear information available about the diagnosis.

In a study by Ramon and colleagues (2001) of 50 people with personality disorder from Essex, the meaning of the term revealed a wide range of views from 'a life sentence—untreatable—no hope', to 'haven't got a clue'. The majority felt that they did not really know what the term meant (26%), where as 22% described it as 'a label you get when they don't know what else to do' and 18% referred to the meaning 'as being labelled as bad'. Eighteen percent referred to the diagnosis as being 'indicative of mood swings'. Service users'

own descriptions of their problems tended to correspond with an additional diagnosis, most commonly of depression and severe anxiety (36%). Service users preferred not to use the term personality disorder and found that the diagnosis led to negative attitudes by staff across a range of agencies and a refusal of treatment. Only 20% perceived the diagnosis to have led to an improvement and better treatment. A proportion of service users also felt it would be helpful if the terminology 'borderline personality disorder' were changed.

In Nehls (1999), 30 people with borderline personality disorder were interviewed to establish what it means to live with the diagnosis. Service users reported feeling that professionals held preconceived ideas and unfavourable opinions of people with a diagnosis of borderline personality disorder. They felt that they were being labelled, rather than being diagnosed. They struggled with the ramifications of having a negative label rather than the diagnosis itself, such as it affected the delivery of mental health services and also other forms of healthcare. Most of the people felt that they were in a paradox, in that they felt that they fitted the criteria, yet experienced the diagnosis as having no beneficial purpose in guiding treatment.

Self-harm and suicide attempts were commonly reported among participants interviewed by Nehls (1999). They found the view of self-harm as manipulation to be unfair and illogical, revealing an underlying prejudice and leading to a negative response to such behaviour by clinicians. Such attitudes might mean that the reasons underlying the self-destructive behaviour are missed. Service users felt it was more productive and accurate to view self-harm as a means of controlling emotional pain and not as a deliberate attempt to control others.

In a study by Stalker and colleagues (2005), which elicited the views of 10 people with a diagnosis of personality disorder and analysed the data using a grounded theory approach, half felt that the term 'personality disorder' was disparaging. However one male participant thought that it accurately described his problems: 'It doesn't particularly disturb me. I don't see any problem because that is exactly what I suffer from—a disorder of the personality' (Stalker *et al.*, 2005).

4.3.4 Services

Six of the included studies reported service user experience of accessing services, including specialist services, staffing issues, and of the community-based pilot services for people with personality disorder.

Access to services

In the study by Haigh (2002), there was strong agreement among service users that there were not enough services for people with personality disorder and there was a lot of negativity towards those services that were available,

largely due to prejudicial staff attitudes. In addition, while service users acknowledged that the care programme approach had the potential to be beneficial, their experience was that it was often not followed or was unhelpful. Service users views often improved if they were offered a specialist personality disorder service. They felt that early intervention was crucial to preventing a major deterioration in personality disorder. Service users also felt that early intervention services held more positive attitudes towards treatability and intervention.

As people with personality disorders often present in crisis and enter the mental health service through the police and other emergency services, service users interviewed by Haigh (2002) believed that self-referral may prevent further negative and unhelpful experiences. It was also felt that immediate support, which is often needed, could be provided by a telephone service, but ideally 24-hour crisis intervention teams who had knowledge of and training in personality disorders should be available as this would reduce the need for inpatient care. As GPs were usually the initial contact for access to services, it was felt that they should receive more education about personality disorders.

People interviewed by Nehls (1999) experienced services as intentionally limited, in that some of them were on a programme that only allowed them to use hospital for 2 days a month, and that the opportunities for a dialogue with mental health professionals was also limited. When in crisis, a dialogue with someone who cares was desired by service users. The push by some services towards 'self-care' and 'helping yourself' was felt to divert attention away from what matters to people with borderline personality disorder, that is a caring response.

Access to services may also be compromised for people from black and minority ethnic backgrounds (Geraghty & Warren, 2003). Accessing services beyond primary care may be a protracted process. In general mental health services there has been reported a poor understanding of the needs of people from black and minority ethnic backgrounds, however a service user said that once they had a entered a specialist treatment service for personality disorder, it was largely able to meet their cultural needs (Jones & Stafford, 2007).

Staffing issues

Service users interviewed by Haigh (2002) felt that staff needed to be sensitive in their handling of therapeutic relationships, particularly regarding attachment, issues of gender, sexual orientation, and abuse history. Staff also needed to be consistent in their assertion of boundaries, and be willing to provide a reliable time commitment to a service and the people they were treating. Service users also valued input from staff who had experienced mental health difficulties, as it was felt they had more insight. All service

users thought it was important to have respect from staff, to be perceived as an individual and with intelligence, to be accepting but also challenging, and to view the therapeutic relationship as a collaboration. Problems arose for service users, however, when boundaries broke down and the staff began to share their own problems with service users, and when staff failed to show respect or were disinterested in the client. It was also felt that service users could provide a useful input to clinicians' training.

In the study by Ramon and colleagues (2001) based on semi-structured interviews and a questionnaire, advocates (98%) and GPs (60%) were perceived as most helpful, and CMHTs (45%) as least supportive. Service users felt that the ideal services should be those that advocated a more humane, caring response, an out-of-hours service and a safe house, an advocate service and helpline.

Specialist services

Specialist services (and long-term treatment) were viewed by the service users interviewed by Haigh (2002) as the most effective way of treating personality disorders. Service users preferred to make their own choice about services and treatments as this was felt to increase cooperation and engagement. It was stated that where there was a lack of choice and the service user opted not to engage with the treatment, this led to service users being labelled 'non-compliant'.

An acknowledgement by clinicians that short hospital admissions may be needed on occasion would be welcomed by service users (Haigh, 2002), although with less emphasis on drug treatments. An option for respite care, whether in hospital or safe/crisis houses would reduce the need for situations that result in mental health act assessments. Coercive treatments were not helpful and tended to make situations worse. Service users said they would benefit from information on treatment options and being allowed to decide for themselves what would best meet their need.

Morant and King (2003) evaluated an outpatient service attached to a therapeutic community during its first 2 years of operation. Fifteen service users (12 women, 3 men), the majority of whom had a diagnosis of borderline personality disorder (86%), who had received treatment for at least 1 month at the therapeutic community, were interviewed. Most service users found leaving the therapeutic community extremely difficult, particularly the adjustment from a 24-hour structure to independent living. Problems reported included depression and anxiety, feelings of isolation and loneliness, and lack of structure. Some service users returned to dysfunctional patterns of behaviour, struggled to manage relationships with family and friends, and had difficulties in managing the practical issues such as housing and contact with mental health services. Despite this post-therapeutic 'dip', most reported finding value in attending the outpatient service, but also found it to be

insufficient. Those interviewed also struggled making the move back to a CMHT due to the passive and dependent role CMHTs encourage, in contrast with the responsibility people take for their own care in the therapeutic communities. Three people were admitted as inpatients during the period covered by the study. However, service users also reported a gradual structuring of daily life and establishing a network of resources. They also reported that the outpatient service helped them to make the transition to independent living.

Community-based pilot services for people with personality disorder

An evaluation of 11 community-based pilot sites with dedicated services for people with a personality disorder (Crawford *et al.*, 2007) included qualitative interviews and focus groups with service users (between 7 and 10 on each site) and carers (up to 3 on each site). The study sought to interview seven to ten service users and up to three carers and former service users from each site; six current service users formed the focus group. A number of key themes emerged that covered the entire journey through the service from the entry or 'coming in' process and assessment, through experiences of different treatments, relationships with staff and other service users, boundaries and rules, out-of-hours services, to outcomes and 'endings'.

Experiences of entering the service depended on the service they were entering, but also on the user's prior experience of services. Many felt rejected or that they had been treated badly by other services, which they attributed to the personality disorder diagnosis and the complex needs and behaviours associated with it. Consequently, many of the services users felt desperate for help, and relieved to be offered a service with specialist knowledge and skilled staff. Their hopes and expectations were high, but alongside this feeling was a fear of further rejection.

Service users valued receiving clear, written information about the service, particularly where it differed from mainstream services. It was also important for service users to have a welcoming response from the service; where this was not the case the service was experienced as negative and daunting.

Those interviewed tended to find assessment difficult, traumatic and upsetting, due largely to the focus on painful past experiences and the emotions these raised. Some service users felt that this process was over-long as they had to undertake tests and questionnaires over several weeks. The availability of staff to answer questions and offer support made the process easier, especially as support was often not felt to be available outside the service.

Service users welcomed services that were flexible and accessible, and staff who were responsive to the needs of service users. Service users also valued having a range of options to choose from and access at different times such as

one-to-one sessions, out-of-hours phone support, crisis beds and an open clinic. It was also important that the therapy was not time limited.

Specialist services for personality disorder can lead to a strong sense of belonging for many service users due to sharing experiences with other service users and building relationships with staff. Service users also reported that these services tended to have a more positive focus, with staff having more optimistic beliefs about an individual's capacity for change and more discussions with service users about recovery.

Most of the services offered some form of psychotherapy. While most service users found psychotherapy complex and challenging, they also found it helpful and positive. Therapists support in helping service users' engage with and address their difficulties was valued and appreciated. Psychotherapy was viewed by service users as the element of the service that bought about the most significant changes and positive outcomes for people (see below). It allowed them to understand themselves and behave better, and provided an opportunity to practice behaviours and/or communications in a safe environment. Aspects of psychotherapy, such as the DBT skills group, allowed people to find new ways of coping and thinking about their difficulties.

Rules and boundaries were a contentious issue in many of the pilot sites. People coped with these better when they were made explicit and transparent, and were able to be negotiated, rather than being implicit and/or forced upon them. Some of the rules were felt to be too rigid and impractical, for example, attending group therapy in order to access individual therapy, not having friendships with other service users, coming off medication before starting therapy, and various rules around self-harm, such as not being able to talk in a group until the person has stopped self-harming.

The need for out-of-hours support was a common theme raised by service users. Crises usually happened outside the hours of 9am-5pm, and if people did have to access a service during a crisis outside of this time the staff often responded inappropriately. Service users felt that they needed a person-centred and responsive out-of-hours service.

Few services offered support to carers. Where they were offered, carers appreciated the educational and information-giving aspects and the support of other carers. However, carers would have liked more information about the diagnosis, suggestions for how to access help and more information about care and treatment. In addition, carers felt excluded from the service user's treatment.

It was felt that the most productive relationships were with staff who were non-judgmental, helpful, supportive, caring, genuine and 'real', positive,

flexible, accessible, responsive, skilled, and knowledgeable. Other valuable attributes were treating service users as whole people rather than as a collection of symptoms, being unshockable, being honest about themselves to some degree while maintaining boundaries, treating the service user as an equal, believing in the service user's capacity for change and consequently encouraging and supporting them to achieve their goals.

Having relationships with other service users were on the whole viewed as positive, although this depended on the service model offered. Service users found it productive to share their experiences with people, as it provided them with ideas for coping, a shared sense of identity, a social network, and helped to boost their confidence. However, these relationships were more difficult to negotiate if they spent long periods of time together and there was an imbalance between giving and receiving support.

Service users expressed much anxiety about leaving a service, which was mainly centred on being required to leave before feeling ready to do so. Service users felt that a more structured approach to 'endings' was needed, and that there should be some way of retaining a link with the service and/or service users. It was also felt that reassurance was needed that they had the opportunity to restart in a service if a crisis developed. Most service users felt strongly that abrupt endings were unhelpful as they gave little opportunity to prepare and to work through any issues that arose out of it.

The reports from service users suggest that nearly all of the pilot services had been beneficial to people. They improved services users' confidence, self-esteem and self-awareness. Service users also came to understand their behaviours and this frequently led to changes in behaviour (such as less self-harm, and fewer A&E admissions and crises), particularly as they became better able to identify the warning signs and triggers. It was also reported that services improved service users' relationships and interactions with others, particularly as a result of improved communication skills. In addition, service users felt more assertive and independent, felt that they had learnt new coping skills including managing their anger better, were able to accept care, and were increasingly thinking about returning to work or study, or able to remain in work. Service users also felt listened to and hopeful, and in more control of their lives. However, a few service users felt that the therapy they received had been damaging and or/ humiliating and distressing.

However, it should be noted that in these pilot services the majority of service users were white women. Men and people of an ethnic minority were under-represented and their inclusion could have led to a less positive experience.

4.3.5 Treatments

Two studies reported on experiences of group psychotherapy for people with borderline personality disorder and there were two on DBT.

Group psychotherapy

Hummelen and colleagues (2007) interviewed eight people with borderline personality disorder who dropped out of long-term group psychotherapy following intensive day treatment. The main reasons for dropping out were finding: the transition too difficult from day treatment to outpatient group therapy and bad experiences of the previous day treatment; that group therapy was too distressing—service users reported having strong negative feelings evoked in therapy and feeling that these could not be adequately contained in an outpatient setting; that outpatient group therapy was not sufficient as too much time elapsed between sessions; that service users were unable to make use of the group or were unsure of how the group was meant to work; that service users experienced a complicated relationship with the group and felt that they did not belong; and that there were various aspects of the patient-therapist relationship that were negative (such as therapists not explaining adequately how the group worked, not dealing effectively with criticism and acknowledging the patients' distress). Other service users found it too difficult combining work, study, or parenting responsibilities with therapy. Other reasons stated included a desire to escape from therapy and no interest in further long-term group therapy.

In Crawford and colleagues (2007) group psychotherapy was experienced by some service users as a good opportunity to share experiences with others and they valued the peer support. However, others, who would have preferred individual therapy, struggled where group therapy was the only option, particularly in understanding the way the group operated and its 'rules'.

Dialectical behaviour therapy

Fourteen women with borderline personality disorder were interviewed to ascertain what is effective about DBT and why (Cunningham *et al*., 2004). Participants reported that DBT allowed them to see the disorder as a controllable part of themselves rather than something that controlled them, providing them with tools to help them deal with the illness. They reported that the individual therapy played an important part, particularly when the relationship with the therapist was viewed as non-judgemental and validating and the therapist pushed and challenged them. However, where the client felt that the therapist did not push enough or too much, the therapy seemed to become less effective. Another key component in the relationship is equality, with the client feeling that they were operating on the same level as the therapists and working towards the same goal. This equality seems to empower people to take more responsibility in their own therapy.

Skills training was seen as complimenting the individual therapy and being most effective when the skills trainers were able to help the service users apply the skills to their lives. The skills trainers needed to have a strong

understanding of the skills themselves rather than just use the manual—the latter proved to be less effective for service users (Cunningham *et al*., 2004).

Service users found some skills more helpful than others. 'Self-soothe', 'distract' and 'one mindfulness' were the skills reported as useful most commonly. The skills most used also corresponded to the skills most easily understood. The support that service users received in the skills group also proved to be valuable.

The 24-hour telephone skills coaching were valued by the service users as a means of supporting them through their crises (Cunningham *et al*., 2004).

Service users reported that DBT had had a positive effect on their relationships in day-to-day interactions, and although problems with friends and family did not disappear, they were more manageable. Service users have also reported being less paranoid in public. Interpersonal skills were enhanced and this was believed to be as a result of the improvement in service users' abilities to control their emotions and a reduction in self-harm. Although most service users felt that there were still areas that they had difficulty dealing with, some participants felt that their level of suffering had decreased, although for others it remained constant. Clients also expressed higher levels of hope and a desire to live more independently (Cunningham *et al*., 2004).

In a study by Hodgetts and colleagues (2007) of five people (3 women and 2 men) with borderline personality disorder being treated in an NHS DBT service in the south west of England, the participants reported that DBT was presented to them as the only treatment for personality disorder, which may raise anxieties about what is expected of them. While some valued the sense of structure to the treatment, others would have preferred a more tailored and flexible approach. There were also mixed feelings about the combination of individual therapy and group skills training. For one person the challenges of DBT proved too much so she left the programme. Another factor in her leaving was that she believed she was refused support from a crisis service because she was in a DBT programme. All of the clients interviewed saw the therapeutic relationship as important, valuing the collaborative working and the sharing of experiences. The group work gave a sense of shared identity. The participants in the group all commented on how DBT had affected them; one said that he cut himself less; others were not sure if changes in their lives were due to DBT or other factors. One person was concerned that now that the option of self-harm had been removed, they had no other 'coping' mechanisms.

4.3.6 Personal coping strategies

One study by Stalker and colleagues (2005) reported on personal coping strategies. Participants in the survey recognised a number of strategies they

employed to help them cope, the most common of which were: visiting a mental health resource centre; talking to a professional or a partner; keeping active; doing exercise; going to bed; medication; 'keeping yourself to yourself'; 'fighting the illness'; use of drugs and alcohol; overdosing; and cutting. The participants were fully aware that some of these activities were harmful, but felt they had no alternatives: 'When I am feeling really bad, [drinking is] the only thing that really blots out the memories' (Stalker *et al*., 2005).

4.3.7 Public awareness and education

One study by Haigh (2002) reported on public awareness and education about personality disorder. It was felt by service users that more education about mental health difficulties should be provided in schools to reduce stigma, to educate about vulnerability and to teach students how to seek appropriate help if they are experiencing difficulties themselves. Leaflets in GP surgeries and support groups for families/carers were also suggested. Service users also felt that it was important that people became aware that a diagnosis of personality disorder 'doesn't mean you're not a nice person'.

4.3.8 Summary of helpful and unhelpful features

Helpful features identified by service users (Haigh, 2002) included: early intervention before crisis point; specialist services; choice of treatment options; care tailored to the individual; therapeutic optimism and high expectations; developing service users' skills; fostering the use of creativity; respecting a service user's strengths and weaknesses; clear communication; staff that were accepting, reliable and consistent; supportive peer networks; shared understanding of boundaries; appropriate follow-up and care; and making use of service users as experts in developing services and staff training.

Unhelpful features noted by service users (Haigh, 2002) included: availability of services determined by postcode; services only operating in office hours; lack of continuity in staff; staff without appropriate training; treatment decided only by diagnosis and/or funding; inability to fulfil promises made; staff that were critical of service users' expressed needs; staff only responding to behaviour; negative staff attitudes; rigid adherence to a therapeutic model even when it becomes unhelpful; long-term admissions; use of physical restraint and obtrusive levels of observation, inappropriate use of medication, and withdrawal of contact used as sanction.

According to service users interviewed by Haigh (2002), services could be improved if: professionals acknowledged that personality disorder is treatable; they received a more positive experience on initial referral as this would make engagement with a service more likely; if the ending of a therapeutic relationship was addressed adequately; and if services were not

removed as soon as people show any signs of improvement, as this tended to increase anxiety and discourage maintenance of any improvement.

4.4 Carer experience

4.4.1 Introduction

When a person is diagnosed with borderline personality disorder, the effect of the diagnosis on carers is often overlooked. However, a recent study has shown that psychological distress amongst the families and friends of people with borderline personality disorder has been likened to the distress experienced by carers of people with schizophrenia (Scheirs & Bok, 2007).

The use of the term 'family' in the literature generally refers to parents, siblings, spouses and children. This guideline uses the term 'carer' to apply to all people who have regular close contact with the person.

A systematic search for literature on carer needs, including interventions, was not undertaken on the advice of the GDG since little empirical research exists. This section therefore gives a narrative review of the available evidence and expert consensus views.

4.4.2 Do the carers of people with a borderline personality disorder have specific care needs?

It has been suggested (expert opinion) that families of people with a borderline personality disorder could experience what Hoffman (2005) has described as 'surplus stigma', which is stigma over and above that experienced by carers of people with other mental illnesses. Unfortunately, there is scant empirical evidence available to support or refute this hypothesis.

Scheirs and Bok (2007) administered the Symptom Check List (SCL-90) to 64 individuals biologically related (parents or siblings) or biologically unrelated (spouses/friends) to people with a borderline personality disorder. The group had higher scores on all symptom dimensions of the SCL–90 than the general population. There was no significant difference between those who were biologically related to the person with borderline personality disorder and those who were not.

Hoffman and collegaues (2005) assessed burden, depression, guilt and mastery in families of people with borderline personality disorder. Forty four participants (representing 34 families) participated in a Family Connections programme (the outcome this study is described in section 1.4.3) and found significant burden as measured by the Burden Assessment Scale and Perceived Burden Scale, significant depression as measured by the Revised Centre for Epidemiological Studies Depression Scale, significant grief as measured by a Grief Scale, and low levels of mastery as measured on the

Mastery Scale. It is important to note that there was significant variation in scores. This study was replicated by Hoffman and colleagues (2007) with 55 participants and found that mean scores on the measures burden, guilt and depression were consistent with those in the previous study.

Carers of people with borderline personality may have needs that are at least equivalent to carers of people with other severe and enduring mental health problems.

4.4.3 What intervention/support is helpful to carers of people with a borderline personality disorder?

No RCTs of interventions specifically aimed at carers of people with borderline personality disorder were identified from the search for RCTs described elsewhere (for example, in the chapter on pharmacological interventions), and an additional systematic search was not undertaken on the advice of the GDG. There was therefore little empirical evidence to review.

Interventions for families of people with a borderline personality disorder have been strongly influenced by the literature drawn from family interventions treatments for other disorders (for example, schizophrenia). This literature has indicated that carers find psychoeducation and information most helpful (Dixon *et al*., 2001).

However, research by Hoffman and colleagues (2003) provides a note of caution to those who advocate interventions of this type. They assessed 32 family members for their knowledge of borderline personality disorder. Knowledge was then correlated with family burden, depression and expressed emotions. Contrary to expectations greater knowledge about borderline personality disorder was associated with higher levels of burden, depression, distress and hostility towards the person with the disorder.

Berkowitz and Gunderson (2002) have piloted a multi-family treatment programme strongly influenced by psychoeducative approaches used in schizophrenia. Unfortunately, no outcome data were reported.

Hoffman and colleagues (2005) conducted a study examining the impact of the Family Connection programme, which aims to reduce burden, grief, depression and enhance mastery in families of people with borderline personality disorder. The programme is a 12-week manualised education programme that is strongly influenced by DBT principles. The programme also had a strong educational component in which information is provided about borderline personality disorder and research. There is a great emphasis on learning new skills (coping and family skills) and the programme aimed to foster social support. This study had 44 participants (34 families) and the families were evaluated pre-intervention, post-intervention and at 6 months follow-up. Participants showed reductions in burden, grief and enhanced

mastery. There was no significant difference in depression. The results were maintained at follow-up.

Hoffman and colleagues (2007) was a replication of the 2005 study. Fifty five participants took part in this programme. They were assessed using the same measures as the 2005 study: pre- and post- intervention and at 3 months follow-up (rather than 6 months in the previous study). As in the previous study participants showed improvements in grief, burden, and mastery. There was also a significant reduction in depression. While these findings are of interest and this intervention shows promise, clinical trials examining the effectiveness of this intervention have not, as yet, been published.

There is a lack of high quality empirical evidence on interventions for carers of people with borderline personality disorder, although emerging evidence suggests that structured family programmes may be helpful. Hoffman and colleagues (2003) study provide a cautionary note about information. Their findings suggested that more information alone could be associated with more distress.

4.4.4 Do carers through their behaviours and styles of relating influence clinical and social outcomes or the well being of people with borderline personality disorder?

This clinical question needs to be explored sensitively. Carers could have understandable concerns with respect to this question and may feel that they are being unfairly blamed for the person's problems.

Earlier chapters (see chapter 2) have highlighted the high correlation between childhood adversity and borderline personality disorder. These findings are challenging to families caring for people with borderline personality and it is important not to assume that all family environments are 'toxic' and have 'caused' the disorder.

There are some studies suggesting that the current family environment could influence the course of borderline personality disorder. Gunderson and colleagues (2006) explored predictors of outcome in borderline personality disorder. In this study 160 patients were recruited and followed up for 2 years at 6, 12 and 24 months. Findings should be interpreted with caution because of the nature of the measures used. However, they concluded that alongside baseline psychopathology and history of childhood trauma, present relationships was also a predictor of outcome after 2 years. The longitudinal Interval Follow-Up Evaluation was used to assess impairment in relationships with parents, spouse, siblings and children.

A significant amount of research into the impact of the family environment has focused on parental hostility and involvement and the course of a disorder. These constructs are components of expressed emotion. Expressed

emotion and its impact on recovery for people with schizophrenia and has been more extensively researched (see Dixon and colleagues [2001] for review). Within the borderline personality disorder literature there was only one study on expressed emotion.

Hooley and Hoffman (1999) followed a group of 35 people with borderline personality disorder for 1 year post-discharge. They assessed expressed emotion using the Camberwell family interview. The found no association between hostility and criticism and re-admission rates in borderline personality disorder. Even more surprising and contrary to research in psychosis was that people with borderline personality disorder had fewer admissions in families that scored higher on expressed over-involvement.

In summary, there is not enough evidence to confidently answer this question. It appears that the relationship between the family environment and the prognosis of borderline personality disorders is complex and multi-dimensional (Lefley, 2005). There is some tentative evidence that families of people with borderline personality disorder could interact in ways that are unhelpful for the person with borderline personality disorder. However, Lefley (2005) cautions against overly blaming families and suggests that the literature does not fully consider temperamental vulnerabilities in people with borderline personality disorder.

4.4.5 Are their interventions/support for carers of people with borderline personality disorder that are helpful in altering social outcome and well being of a person with a borderline personality disorder?

There are no empirical studies to review in this section. The literature is restricted to expert opinion and consensus.

4.4.6 Overall clinical summary

There is little evidence to answer clinical questions relating to support for carers, although carers of people with borderline personality disorder appear to have significant needs. Consequently, it would not be prudent to make robust clinical recommendations. Further research is needed to build on the emerging evidence suggesting that structured psychoeducation programmes that also facilitate social support networks may be helpful for families. There is an absence of research into whether family interventions alter the social outcome and welfare of a person with borderline personality disorder.

4.5 Summary of themes

The personal accounts and the literature reveal that during its course, borderline personality disorder can be experienced as extremely debilitating. People with the disorder report having difficulty controlling their mood, problems with relationships, an unstable sense of self, and difficulty in recognising, understanding, tolerating and communicating emotions, which

can lead to the use of coping mechanisms such as self-harm. When assessing people with borderline personality disorder it is important to recognise that physical expressions such as self-harm are usually indicative of internal emotions.

People with borderline personality disorder have reported that they fear rejection on entering a service, particularly if they have had prior negative experiences, and although they feel desperate for help, this can make engaging in an assessment more difficult. Assessments can be traumatic and upsetting, due in large part to the focus on painful past experiences. Explanation about the process, clear, written information about a service, and the opportunity to ask questions were all welcomed and valued.

People have reported that being diagnosed with borderline personality disorder can be both a positive and negative experience. For some it can provide a focus, a sense of control, a feeling of relief, and a degree of legitimacy to their experience. In general people are more positive about the diagnosis when it has led to accessing services, and where those services have taken a positive approach to the disorder. However, for others, the diagnosis was equated with a loss of hope and there were reports of being denied services due to the diagnosis and associated misconceptions about its untreatability. Little information or explanation appears to be given with this diagnosis, and where it has been given it has tended to be negative. There was a feeling that different terminology, other than 'borderline personality disorder', could engender more hope. Both the personal accounts and the literature demonstrates that the diagnosis can provoke negative attitudes in healthcare professionals across a range of services and lead to a refusal of treatment.

Both the personal accounts and the qualitative literature highlight the need for healthcare professionals to be aware of the stigma surrounding borderline personality disorder and to be sensitive to the impact of the diagnosis on a person's life and their sense of hope for the future.

There is a general consensus from the literature that there are not enough services for people with personality disorder (and clinicians should be aware that access to services may be compromised for people of black and minority ethnic backgrounds). Service users felt that specialist services are most effective in treating personality disorders and that it is important to recognise that treatment may need to be long term. Early intervention was considered crucial in preventing a major deterioration in the disorder, and having the option to self-refer could prevent further unhelpful and negative experiences.

When working with people with borderline personality disorder, it was felt that healthcare professionals need to establish a collaborative partnership with the service user that is non-judgemental, supportive, caring, genuine and

positive, and that they should believe in their capacity to change and encourage and support them to achieve their goals. Healthcare professionals also need to be sensitive in their handling of the therapeutic relationship, particularly regarding issues of attachment, sexual orientation and abuse history. They need to be consistent in their assertion of boundaries and willing to provide a time commitment to clients.

When in crisis, people felt that access to an out-of-hours crisis service was needed; a person-centred response from someone who cares and had knowledge of the disorder was felt to preferable. Working with service users to explore potential triggers for crises and strategies for managing these is useful as part of care plan that also includes crisis advice.

Being able to have a choice about services and treatment was also important as this was felt to increase the service user's cooperation and engagement. Where this choice was lacking and the service user opted not to engage with a particular treatment this was often felt to lead to being labelled as non-compliant. Service users' own judgement about suitability or unsuitability of a service or treatment should be respected.

Service users felt that specialist personality disorder services were helpful in improving their self-esteem, self-awareness, and their understanding of their behaviour, which in turn led to a change in their behaviours (for example, a reduction in self-harm). These services also helped to improve their relationships, enabling them to feel more assertive and independent. They had established new coping skills and felt better able to accept care. However, where this service included a residential component a 'post-therapeutic dip' is often reported as people adjust to independent living.

Most of the services offered some form of psychotherapy, which although complex and challenging, was experienced as helpful and positive. Group psychotherapy was viewed as a good opportunity to share experiences with others and obtain peer support, although for some they would prefer individual therapy, as they found the group too distressing. This highlights the importance of how treatments can differ for individuals and the importance of client choice.

Service users have been positive about DBT because it has helped them to improve their relationships and their ability to control their emotions and reduce self-harm. However, while some valued the structure of the approach, others preferred the programme to be more tailored and flexible.

Leaving a treatment or service is often difficult for people with borderline personality disorder, particularly around issues of rejection, and can evoke strong emotions. It has been recognised that a more structured approach to 'endings' is needed. People also felt they would like reassurance that they

access the service again in a crisis. Information about support groups, activity groups and self-management techniques may also be useful.

Few services offer support to carers despite research that demonstrates that psychological distress in families and friends of people with borderline personality disorder is similar to that experienced by carers of people with schizophrenia, and they score highly on scales measuring burden and depression.

Where support is offered it tends to be centred on provision of education and information. Carers would like more information around the diagnosis, suggestions on how to access help and more information about care and treatment. Most carers reported feeling excluded from the service user's treatment.

There is evidence to suggest a correlation between childhood adversity and borderline personality disorder, and that a service user's current family environment could influence the course of the disorder. However, despite this evidence it is important not to assume that all family environments are 'toxic' and have 'caused' the disorder as carers could feel unfairly blamed for the service user's difficulties. Collaborating with carers (when the service user is in agreement) and supporting them could provide a valuable resource for the person with borderline personality disorder.

4.6 Clinical practice recommendations

4.6.1 Access to services

4.6.1.1 People with borderline personality disorder should not be excluded from any services because of their diagnosis, gender or because they have self-harmed.

4.6.2 Developing an optimistic and trusting relationship

4.6.2.1 Healthcare professionals working with people with borderline personality disorder should:

- explore treatment options in an atmosphere of hope and optimism, explaining that recovery is possible and attainable
- build up a trusting relationship, work in an open, engaging and non-judgmental manner, and be consistent and reliable
- be aware of sensitive issues, including rejection, possible abuse and trauma, and the stigma often associated with self-harm and borderline personality disorder.

4.6.3 Involving carers

4.6.3.1 Healthcare professionals should ask directly whether the person with borderline personality disorder wishes carers to be involved in their care, and

- encourage carers to be involved where the individual has agreed to this
- ensure that the involvement of carers does not lead to withdrawal of, or lack of access to, services.

4.6.4 Principles for healthcare professionals undertaking assessment

4.6.4.1 When assessing a person with borderline personality disorder, healthcare professionals should:

- explain the process of the assessment clearly to enable the individual to have some control in the process
- offer post-assessment support, particularly if sensitive issues, such as childhood trauma, have been discussed
- use non-technical language wherever possible
- explain the diagnosis and the use and meaning of the term borderline personality disorder.

4.6.5 Managing endings and transitions

4.6.5.1 Healthcare professionals should ensure that withdrawal and ending of treatments, and transition from one service to another, is discussed carefully and in advance with the person (and carers if appropriate) and anticipate that endings may evoke strong emotions and reactions for the person. They should ensure that:

- ending or withdrawal of treatments or services is structured and phased over a period of time
- the care plan maintains effective collaboration with other care providers during endings and transitions, and includes the opportunity to access services in times of crisis.

5 Psychological therapies, therapeutic communities, arts therapies, and complementary therapies in the management of borderline personality disorder

5.1 Introduction

This bulk of this chapter considers psychological therapies in the treatment of people with borderline personality disorder. However, the GDG also considered therapeutic communities, arts therapies and complementary therapies, and reviews of these can be found at the end of the chapter.

5.2 Psychological therapies

There is a wide range of approaches to the psychological treatment of borderline personality disorder and more continue to be developed. The differences between them are grounded in how they formulate key psychological features of the disorder; for example, in terms of early maladaptive schemas, emotional dysregulation, unprocessed traumatic experience, partial dissociation between states of mind, identity diffusion, impulsivity, and inability to understand one's own or others' mental states. They also differ in the techniques used to address these problems and in the duration and format of treatment. Therapies may be delivered in outpatient settings through one-to-one sessions and groups, or more complex programmes of care in day hospitals or therapeutic communities. The duration of therapy varies between 9 months and 3 years, although in practice, a single episode of treatment is often followed by other interventions within mental health services.

Despite these differences, psychological therapies for borderline personality disorder have many factors in common, possibly even more than psychological treatments for other conditions, through adaptation to the needs of this population. These include a high level of structure, consistency, theoretical coherence, taking account of relationship problems (including the difficulty in engaging positively with the therapist), and adopting a flexible and individualised approach to care. Indeed, it is possible to outline a whole treatment approach along the lines of such general principles (Livesley, 2007).

Psychoanalytic therapies used with borderline personality disorder include transference-focused therapy (TFT; Clarkin *et al*., 2001) and mentalisation-based therapy (MBT; Bateman & Fonagy, 2004). Cognitive and behavioural approaches include dialectical behaviour therapy (DBT; Linehan, 1993),

schema-focused therapy (SFT; Young *et al*., 2003), manual-assisted cognitive therapy (MACT; Evans *et al*., 1999) and an adapted form of CBT (Davidson, 2000). Other therapies include cognitive analytic therapy (CAT; Ryle, 1997), interpersonal reconstructive therapy (IRT; Benjamin, 2003), and an adaptation of interpersonal therapy (IPT; Markowitz *et al*., 2007).

5.2.1 Classification of psychological interventions

Two broad classes of psychological interventions may be identified. Complex interventions combine more than one modality of treatment (for example, individual therapy plus group therapy) (Campbell et al., 2000) and are delivered by more than one therapist (e.g. a team). We distinguish these from single modality psychological therapies, either individual or group therapies, usually offered weekly in an outpatient setting. Single-modality psychological interventions can also be configured in different ways, including standard interventions and brief interventions, and we report these separately. We evaluate evidence for the two types of intervention separately before summarising results.

5.2.2 Description of complex psychological interventions

Dialectical behaviour therapy (DBT; Linehan, 1993) is a multi-modal treatment programme developed for women who self-harm, and has since been applied to other populations. Five stages of treatment are described: pre-treatment, achieving behavioural control, emotionally processing the past, resolving ordinary problems in living and capacity to experience sustained joy. Service users are unlikely to obtain treatment in the last two stages in most public healthcare settings. Research in DBT has focused on stage one, achieving behavioural control, which aims to help the individual develop and sustain motivation for treatment whilst reducing suicidal behaviours, non-suicidal self-injury and other impulsive behaviours e.g. substance misuse, binge-eating. Treatment of other psychiatric diagnoses and other seriously destabilising behaviours are also targeted for treatment. Weekly individual therapy and a weekly psychoeducational and skills training group are offered concurrently for a contracted period, usually one year. If appropriate and when service users / patients are more stable with effective connections with care providers, they may proceed to second stage treatment (emotional experiencing and reprocessing of past trauma). The key principles of stage one treatment involve moving flexibly between acceptance-based procedures (e.g. validation and mindfulness), and behavioural change strategies, which include behavioural and solution analysis Solutions from four sets of cognitive behavioural procedures are used: skills training, contingency management, exposure, and cognitive modification. Dialectical strategies, that encompass aspects of both acceptance and change (e.g. use of metaphor and paradox) are an integral feature of the treatment. The DBT 'package' also includes weekly supervision and consultation meetings for the therapists, who work as a team, and telephone consultation, where therapists are available to patients outside office hours for 'coaching'.

Mentalisation-based therapy and partial hospitalisation (Bateman & Fonagy, 1999) is based on an understanding of borderline personality disorder as a disorder of the self resulting from developmental disturbance of attachment, leading to a failure in mentalisation (the capacity to understand one's own and others' mental states). The intervention is aimed at increasing the self-reflective capacity of the patient. In psychoanalytically-oriented partial hospitalisation, treatment is in the context of a day hospital and consists of many elements, including weekly individual therapy, thrice-weekly group analytic therapy, weekly expressive therapy with psychodrama, and a weekly community meeting, for a maximum of 18 months. The method has more recently been developed for use in outpatient settings.

5.2.3 Description of individual psychological therapies

Cognitive behavioural therapy

Cognitive Behavioural Therapy (CBT) is a structured psychological treatment that focuses on helping a person make connections between their thoughts, feelings and behaviour. CBT was originally developed as a treatment for depression, and has since been modified for the treatment of people with personality disorders including borderline PD. While CBT for axis I disorders is generally focussed on the 'here and now', CBT for people with personality disorders takes account of previous experiences in the development of core beliefs, which are also referred to as 'schemas'. Cognitive therapy focussed on changing fundamental beliefs has applied the work of Beck in particular to the needs of people with both borderline and antisocial personality disorders. Building on experience of using CBT with a variety of mental health problems, it gives guidelines on formulation, identifying and changing core beliefs, and addressing behavioural problems. It is adapted for people with borderline personality disorder paying attention to the structure of the therapy and the problems that can disrupt the therapeutic relationship, such as non-engagement in treatment, shifting problems and goals, losing focus on the aims of therapy, losing structure and lack of compliance with assignments. (Davidson, 2002).

CBT for people with borderline PD is generally delivered in sessions lasting between 30 and 90 minutes. The number of sessions that are offered tends to be greater for people with personality disorder compared to depression and other Axis 1 disorders, being delivered on a weekly basis over a period of nine to 36 months. Patients are asked to undertake home-work in between sessions. Some service models also provide access to therapists by telephone outside of individual sessions.

STEPPS is a CBT psychoeducational group programme which comprises 20 weekly 2-hour sessions and one 2-hour session for family members and

significant others, and comprises three phases in which patients (1) are encouraged to 'replace misconceptions about borderline personality disorder with an awareness of behaviours and feelings that define the disorder' (2) receive skills training aimed at helping them achieve improved emotional regulation, and (3) behaviour skills training.

*Problem-solving therapy (*PST; Huband et al. 2007)
Problem-solving therapy is a brief psychological treatment for depression based on cognitive-behavioral principles (D'Zurilla and Goldfried, 1971; Nezu et al., 1989). It has also been used extensively as a form of crisis intervention following deliberate self-harm or attempted suicide (Hawton and Kirk, 1989). Like CBT, problem-solving therapy is structured, collaborative and focuses on generating solutions to current problems. Problem solving is seen as having five stages: adopting a problem-solving orientation; defining the problem and selecting goals; generating alternative solutions; choosing the best solution; and implementing the best solution and evaluating its effects. Methods used include cognitive modeling, prompting, self-instructions, and reinforcement. PST has been adapted to help people with personality disorders in a format of 16 group sessions preceded by three individual psychoeducational sessions (Huband et al. 2007).

Schema-focused cognitive therapy (Young, 1990; Young & Klosko, 1994) emphasises the role of dysfunctional cognitive schemas learned early in life (early maladaptive schemas) and the processes that maintain them inflexibly and prevent new learning: schema maintenance, schema avoidance and schema compensation. People are encouraged to explore the role that these core beliefs played in helping them adapt to previous adverse circumstances, and to question whether they are appropriate for helping them adapt to their current situation. Treatment aims to facilitate affective engagement and re-learning. This relearning may sometimes involve elements of reparenting.

Cognitive analytic therapy (Ryle, 1997; Ryle & Kerr, 2004) is an integrative and relational approach that combines CBT methods with attention to the therapeutic relationship as the vehicle of change, through understanding how problematic, harsh and punitive relationship patterns have been learned and continue to be re-enacted, both with others and in the person's relationship with his or herself. A particular feature is jointly-constructed psychological 'tools' of narrative and diagrammatic reformulations. These describe recurrent historic patterns of relating with others (possibly including mental health workers) and of self-management. They are designed to help people reflect upon and understand their experience of 'switching' between different states of mind in response to unmanageable feelings or unmet needs. Therapy aims to provide the motivation, skills and opportunities for learning new patterns of relating to oneself and others. CAT is used both as a therapy method and as a consultancy framework to help mental health workers avoid harmful relationship patterns.

Interpersonal therapy

IPT is a structured, time-limited supportive therapy which was first developed to treat outpatients with major depression. In IPT for depression the therapist pays systematic attention to one of four main areas, namely interpersonal sensitivity, role transitions, interpersonal disputes, or losses linking it to changes in mood. A number of studies using randomised controlled designs have shown it to be effective in depression and other disorders. It has been further developed to treat patients with borderline personality disorder.

Psychodynamic Interpersonal Therapy

PIT as a manualised therapy for borderline personality disorder is based on the conversational model of Hobson (1985). The goal of therapy is maturational aiming to help the patient discover, elaborate, and represent a personal reality. Therapists establish an enabling therapeutic atmosphere striving to increase the 'connectedness' between patient and therapist and to develop a shared language for feelings. By amplifying elements of the personal and inner world of the patient as they appear in the conversation, therapists identify moments when traumatic memories break into consciousness in order to work towards their integration into the system of self. Such disjunctions are indicated by negative affect, linear thinking, orientation towards events and the outer world, changes in the self-state, for example grandiosity, and the emergence of transference phenomena.

Psychodynamic/psychoanalytic psychotherapy. These methods emphasise the role of unconscious conflict between wishes which provoke anxiety, and defences that oppose those wishes. These conflicts are understood within the context of internal representations of self and others. Problems in relationships are seen to be repeated within the therapy relationship in the form of transference and counter-transference, which is interpreted by the therapist. Traditionally, psychoanalytic therapists have maintained neutrality, a 'blank screen' on which the patient's inner conflicts and wishes can be projected. However, these methods have been modified in working with people with borderline personality disorder so that the therapist provides more structure and is more active. One example of such a method is transference-focused therapy (Clarkin *et al*., 2006): a structured and manualised form of psychoanalytic therapy that aims to activate dysfunctional patterns of interpersonal relationship within the therapy relationship (transference) so that these can be understood through interpretation. The emphasis is on reducing identity diffusion and facilitating reflective functioning.

5.2.4 Description of brief psychological therapy

Manual-assisted cognitive therapy (MACT; Evans *et al*., 1999) was developed as a public health intervention for the large numbers of people who repeatedly attempt suicide (parasuicide) rather than for borderline personality disorder *per se*. However, a high proportion of people in this population meet criteria for borderline personality disorder, and this subpopulation is therefore similar to that for which DBT was developed. The intervention is a brief, cognitively-oriented and problem-focussed therapy comprising up to five sessions within 3 months of an episode of self-harm, with the option of a further two booster sessions within 6 months. Bibliotherapy, in the form of a 70-page booklet (Schmidt & Davidson, 2002) is used to structure the treatment sessions and to act as an *aide-memoire* between sessions. The manual covers an evaluation of the self-harm attempt, crisis skills, problem solving, basic cognitive techniques to manage emotions and negative thinking, and relapse-prevention strategies.

5.2.5 Delivery

The method of delivery of psychological interventions has an important impact on their effectiveness. Unlike pharmacological treatments, where prescribers are assured of the quality of the product by manufacturers, the quality of a psychological intervention depends on therapists having the skills and the organisational support to replicate the intervention found effective in research settings. The levels of training and supervision of therapists and their adherence and competence in therapy delivery are carefully monitored during research trials, but rarely in NHS practice. The translation of results from trials into routine clinical practice therefore depends on NHS Trusts being aware of these quality control issues and taking steps to ensure the interventions are appropriately delivered and outcomes monitored under clinical governance processes. Typically, psychological interventions for people with borderline personality disorder are delivered by psychologists, psychiatrists, nurses and other mental health professionals with advanced training in the method being implemented and receiving regular specialist supervision. For example, therapists in DBT trials are usually doctoral or masters level professionals, have demonstrated competence in six of eight cases before being accepted and receive weekly supervision. Treatment fidelity is monitored through video or audiotape ratings. Mentalisation Based Partial Hospitalisation differs in that mental health staff do not hold formal qualifications, but they are trained in the method by a specialist Consultant and receive twice-weekly supervision.

5.2.6 Issues in undertaking trials in patients with borderline personality disorder

There is no agreement on what constitutes the 'core' problem in borderline personality disorder. As the diagnosis merely requires five out of nine operational criteria to be present there are many different ways to qualify for the diagnosis, resulting in considerable heterogeneity between trial

populations. This heterogeneity is compounded by frequent co-occurrence of other personality and Axis 1 disorders, the detail of which is often not reported.

A related difficulty is in choice of outcome measures, as different treatments target specific problems and use measures designed to capture a specific outcome. For example, a common outcome measured is the incidence of deliberate self-harm, but only some people with borderline personality disorder harm themselves. The same applies to other outcomes, such as impulsivity and hostility. More universal symptom measures (such as depression) have broader applicability but are less specific to borderline personality disorder *per se*. Alternatively, pragmatic trials may measure variables related to service usage such as hospitalisation or health-related quality of life.

A challenge in conducting trials is to engage and retain a representative sample of people with borderline personality disorder, since disengagement with services is common and high attrition rates from trials are usual.

5.2.7 Issues in reviewing the efficacy of psychological therapy borderline personality disorder

The issues reviewed above have considerable implications for reviewing efficacy of treatments in borderline personality disorder, including psychological therapies. The heterogeneity of the population samples and the outcome measures makes it difficult to combine studies and to generalise across borderline personality disorder as a whole.

Some trials have been conducted on therapies for patients with borderline personality disorder aiming to modify the specific features of the disorder, whereas others included these patients in treatments for depression or anxiety. Where it is possible to extract data on the borderline personality disorder sample separately they may provide useful information, but the outcomes will inevitably be more generic.

Allegiance effects are a potential problem in interpreting results from trials. Understandably, most initial research on specific therapies is conducted by "product champions"; the originators of the treatment or enthusiastic followers, and almost invariably report effect sizes that may seldom again be demonstrated. This is probably a consequence of several factors; (a) small trials in one centre tend to create greater effect sizes than larger multicentre trials, (b) the originators may deliver the intervention more skilfully than the comparative intervention or than when replicated by others, (c) the initial collaborators also tend to be enthusiastic and more energetic in the face of adversity so that benefits are greater than when the treatment becomes standard therapy, and (d) there is scope for bias, whether conscious or not, which may exaggerate differences between the new treatment and existing

ones, to emphasise the novelty of the new intervention. These factors need to be acknowledged in interpreting the results of studies. Although there is no reason to suggest that such research is itself of poorer quality, there is enough evidence that those with an allegiance to one form of therapy are more likely to find positive results for their method than independent investigators in greater equipoise (Luborsky et al., 1999) to recommend that independent studies be conducted.

5.2.8 Reviewing the evidence base

In order to make recommendations about specific psychological therapies for people with borderline personality disorder the GDG asked the clinical question:

For people with borderline personality disorder which treatments are associated with improvement in mental state and quality of life, reduction in self-harm, service use, and risk-related behaviour, and/or improved social and personal functioning whilst minimising harms?

The most appropriate research design to answer this is the randomised controlled trial, and therefore the evidence base reviewed comprised all available randomised controlled trials undertaken in people with a diagnosis of borderline personality disorder. However, since for some more recently developed therapies there are no randomised trials, evidence from non-randomised trials was also sought.

Summary study characteristics and descriptions of the studies are given in tables below but more information in available in appendix 16. Similarly, summary evidence profiles are given in tables below with the full profiles in appendix 18 and the forest plots in appendix 17. Reviewed studies are referred to by first author surname in capitals plus year of publication. Full references for these studies are in appendix 16 rather than the reference list in this document for reasons of space.

5.2.9 Evidence search

Searching for randomised controlled trials

Both published and unpublished RCTs were sought. The electronic databases searched are given in Table 6. Details of the search strings used are in appendix 7.

Table 6: Databases searched and inclusion/exclusion criteria RCTs of psychological treatments

Electronic databases	MEDLINE, EMBASE, PsycINFO
Date searched	Database inception to January 2007
Update searches	July 2007, January 2008; April 2008
Study design	RCT
Patient population	People with a diagnosis of borderline personality disorder according to DSM, ICD or similar criteria
Treatments	Any psychological therapy for people with borderline personality disorder as defined above
Outcomes	See below

Nineteen RCTs were found from searches of electronic databases, of which one was excluded because it was found not to be randomised when the paper copy was retrieved (BOHUS2004). A further two were excluded since they were undertaken in substance-dependent populations (LINEHAN1999; LINEHAN2002).] There was one 3-armed trial. Four further trials which included participants with borderline personality disorder among others, but did not report results separately, were also excluded at this stage (ABBAS2008; HUBAND2007; JOYCE2007; SPRINGER1996. Seven of the remaining trials were of DBT, but there were also trials of other cognitive, behavioural therapies and psychodynamically oriented therapies (see Table 7). In addition, 4 RCTs of combination therapy (i.e., a psychological therapy added to a pharmacological therapy) were found. These are considered in a separate section (see below).

In addition, the GDG contacted known researchers working on relevant trials for which pre-publication data may be available or which were likely to be published while the guideline was being developed. This yielded 7 studies (ANDREA (unpublished) mentalisation-based treatment (not an RCT); BLUM2008 (STEPPS); FEIGENBAUM (unpublished) (DBT); CARTER (unpublished but trial report made available) (DBT); CHANEN (unpublished) (CAT), COTTRAUX (CT); GREGORY2008) plus some follow-up data from published trials (CLARKIN2004 and BATEMAN1999). The trial by GREGORY2008 was excluded as the population had comorbid alcohol dependence. Two of the unpublished studies were not included to avoid compromising future publication (COTTRAUX, FEIGENBAUM). (The trial by Cottraux et al would have been excluded as the raters were not blinded.) Three of these trials were therefore included (BLUM2008; CARTER unpub; CHANEN unpub).

Table 7 Included RCTs of psychological therapies

	Complex interventions	*Individual psychological therapies*	*Brief psychological therapies*
No. trials (Total participants)	8 RCTs	6 RCTs (708)	2 RCTs
Study Ids	(1) BATEMAN1999 (2) CLARKIN2004** (3) CARTER unpub (4) KOONS2001 (5) LINEHAN1991 (6) LINEHAN2006 (7) TURNER2000 (8) VAN DEN BOSCH2002	(1) BLUM2008 (2) CHANENunpub (3) CLARKIN2004** (4) DAVIDSON2006 (5) GIESEN- BLOO2006 (6) MUNROE-BLUM1995	(1) TYRER2003 (2) WEINBERG2006
Treatment	(1) Mentalisation/day hospital (3)-(8) DBT	(1) STEPPS (2) CAT (3) Transference-focused psychotherapy (4) CBT (5) Schema-focussed therapy (6) Interpersonal group therapy	(1) Manual-assisted cognitive therapy (2) Manual-assisted cognitive therapy
Comparator	(1) TAU (2) Transference-focused psychotherapy or modified psychodynamic supportive psychotherapy (3) Waitlist control (4) TAU (5) TAU (6) TAU (7) Client-centred therapy (8) TAU	(1) TAU (2) TAU (3) DBT or modified psychodynamic supportive psychotherapy (4) TAU (5)Transference-focused psychotherapy (6)Individual psychotherapy	(1) TAU (2) TAU

Notes: ** 3-armed trial, therefore appears in 2 columns; CAT = Cognitive Analytic Therapy; TAU = treatment as usual; STEPPS = Systems Training for Emotional Predictability and Problem Solving

Searching for non- randomised controlled trials

Both published and unpublished non-randomised trials were sought. The electronic databases searched are given in Table 8. Details of the search strings used are in appendix 7.

Table 8: Databases searched and inclusion/exclusion criteria for non-RCTs of psychological treatments

Electronic databases	MEDLINE, EMBASE, PsycINFO
Date searched	Database inception to October 2007
Update search	April 2008
Study design	Any non-randomised trial
Patient population	People with a diagnosis of borderline personality disorder according to DSM, ICD or similar criteria
Treatments	Any psychological therapy for people with borderline personality disorder as defined above
Outcomes	See below

In addition, the citations excluded during the search for RCTs (above) were re-sifted to include all relevant studies. Non-RCTs were synthesised in narrative reviews.

Twenty non-randomised studies were found, and these are listed in Table 9. An unpublished study was also made available to the GDG.

Table 9 Non-randomised studies of psychological interventions

	Complex interventions	*Individual psychological therapies*
No. trials (Total participants)	8 non-randomised studies (397)	13 non-randomised trials (638)
Study Ids	(1) ALPER2001 (2) ANDREA unpub (3) BARLEY1993 (4) CUNNINGHAM2004 (5) HARLEY2007 (6) LANIUS2003 (7) MCQUILLAN2005 (8) PRENDERGAST2007	(1) BELLINO2005 (2) BROWN2004 (3) BLUM2002 (4) CLARKIN2001 (5) GABBARD2000 (6) HENGEVELD1996 (7) LEICHSENRING2007 (8) LOFFLER-STASTKA2003 (9) LOPEZ2004 (10) MARKOWITZ2006 (11) NORDAHL2005 (12) RYLE2000 (13) WILBERG1998
Treatment	(1) DBT (2) MBT (3) DBT (4) DBT (5) DBT (6) DBT (7) DBT (8) DBT	(1) IPT + medication (2) CT (3) STEPPS (4) Transference-focused psychotherapy (5) Psychodynamic psychotherapy (6) CBT (7) Psychoanalytically-derived therapy (8) Psychoanalytically-oriented psychotherapy (individual and group) (9) Transference-focused psychotherapy (10) IPT (11) Schema therapy (12) CAT (13) Group psychotherapy
Research design (comparator, if applicable)	(1) Case series (2) Prospective cohort study (3) Cohort study (4) Qualitative study of patients views (5) Cohort study (6) Cohort study (7) Cohort study (8) Cohort study	(1) Non-randomised comparative study (2) Uncontrolled cohort study (3) Cohort study (4) Non-comparative prospective study (5) Non-comparative prospective study (6) Case series (7) Non-comparative naturalistic study (8) Unclear (9) Non-comparative prospective study (10) Abandoned RCT (11) Case series (12) Case series (13) Non-comparative prospective study

5.2.10 Outcomes in RCTs

A large number of outcomes, particularly rating scales, were reported by the psychological studies (RCTs). Those that reported sufficient data to be extractable and were not excluded are listed in Table 10. See Chapter 2 and Appendix 10 for more information on how the GDG tackled the issue of outcomes including details of the outcomes reported by RCTs reviewed during the guideline development process.

1

2 **Table 10 Outcomes extracted from psychological studies**

Category	Scale
Aggression	OAS-aggression
Anger	STAXI
	State-trait Anger Scale
Anxiety	STAI state anxiety and trait anxiety
	HADS anxiety scale
	Hamilton Anxiety Rating Scale
	Beck Anxiety Inventory
borderline personality disorder criteria	Mean number of borderline personality disorder criteria (DSM)
	borderline personality disorderSI
borderline personality disorder criteria	Mean number of borderline personality disorder criteria (DSM)
	borderline personality disorderSI
	ZAN-borderline personality disorder
Depression	HRSD
	BDI
	MADRS
	HADS depression scale
Drug-related	Proportion of days abstinent from alcohol and drugs
	Proportion with clean urinalyses
	Mean % self-reported abstinent days (heroin)
General functioning	GSI
	GAF
	GAS
	SCL-90
	CORE-OM
Mental distress	GSI
Hopelessness	Beck Hopelessness Scale
Impulsiveness	OAS-irritability
Irritability	Barratt Impulsiveness Scale
Quality of life	WHO QOL
	Euro-QOL Weight Health Score Value
Self-harm	See Table 11
Service use	Emergency department visits for psychiatric reasons
	Emergency department visits for suicide ideation
	Hospital admissions for psychiatric reasons
	Hospital admissions for suicidal ideation
	Number on medication at endpoint
	Number with >=1 inpatient admission (unspecific reasons and after self-harm)
	Number with >=1 emergency department visit
	Length of psychiatric admission
	Length of admission following self-harm
	Further psychiatric outpatient treatment
	Number of years on >=3 prescribed drugs
Social functioning	SFQ
	Social Problem Solving Inventory
	Number of years with employment
Suicidality	See Table 11
Acceptability	Leaving the study early for any reason

5.2.11 Self-harm and suicide-related outcomes in the included RCTs

Self-harm and suicide-related outcomes are considered particularly important outcomes in the management of people with borderline personality disorder. They were widely reported by the RCTs of psychological therapies. However, there was considerable discrepancy between studies in how these were defined and reported. See Table 11 for more details.

Table 11 Self-harm and suicide-related outcomes in included RCTs

	Self-harm acts	*Suicidal acts*	*Published scale*	*Suicidal ideation*
BATEMAN1999	Definition: deliberate; resulted in visible tissue damage, nursing or medical intervention required	Definition: deliberate; life threatening; resulted in medical attention; medical assessment consistent with suicide attempt	Not reported	Not measured
BLUM2008	No definition given but suicidal acts reported separately.	No definition given	Not used	Not measured
CLARKIN2004	Not reported	Not reported	Not reported	Not reported
CARTER unpub	Admission for deliberate self-harm (not defined)	Not reported	Not reported	Not reported
DAVIDSON2006	Definition: Not a suicidal act Deliberate Results in potential/actual disuse damage Events occurring within 24 hours of each other considered a single act Data for number of acts given rather than number of acts per person so not extractable	Definition: Deliberate Life threatening Required medical intervention (even if did not receive any) Data OK as given as mean per person	Based on Acts of Deliberate Self-Harm Inventory*	Not reported
GIESEN-BLOO2006	Reports parasuicidality subscale of the BDPSI which the GDG chose not to extract (see Appendix OUtherapeutic communityOMES)	Reports parasuicidality subscale of the BDPSI (see left)	borderline personality disorderSI	Reports parasuicidality subscale of the BDPSI (see left)
KOONS2001	Reports mean number of parasuicidal acts based on PHI interview	Reports mean number of parasuicidal acts	PHI	Beck Suicidal ideation Scale
LINEHAN1991	Number of parasuicidal acts (unclear how defined) – acts occurring as part of one episode were counted separately in number of acts count, but number of episodes also counted	An episode which the subject considered a serious attempt to die	PHI	Used scale (self-report Scale for Suicide Ideators)
MUNROE-BLUM1995	Not reported	Not reported	Not reported	Not reported
TURNER2000	No definition given for 'Rating of parasuicide'; therefore data used is 'number of suicide/self-	As left.	Based on an unpublished scale 'Target Behaviour Ratings'	Beck Suicidal ideation Scale

	harm attempts' which is also not defined and is self-reported			
TYRER2003	Parasuicidal events as defined by the PHI	Not reported separately	PHI	Not reported
VANDENBOSCH 2002	Reported as parsuicidal/self-mutilating acts using score on Lifetime Parasuicide Count – not usable as doesn't give count of episodes/acts – more of a composite measure of overall 'parasuicidality' in period under review	Measured as parasuicidal acts score on BDPSI – have excluded this scale	BDPSI	Not reported
LINEHAN2006	Reports 'Highest medical risk' composite measure of suicide attempts and self-injury data aggregated per year – has not been extracted as not analogous to data from other studies Also reports non-suicidal injuries which has been extracted	Also reports non-ambivalent suicide attempts – it is unclear how this is defined even in the paper which reports the development of the scale	Suicide Attempt Self-Injury Interview (non- ambivalent suicide attempts)	Suicidal Behaviors Questionnaire (Linehan, unpublished work)
WEINBERG2006	Parasuicidal events as defined by the PHI	Not reported separately	PHI	Suicidal Behavior Questionnaire

* Davidson, K.M. (2000) Cognitive Therapy for Personality Disorders: A guide for clinicians. London: Arnold (Hodde) 2nd Edition (in press) Hove: Routledge
** Linehan, M.M. (1997) Behavioral Treatments of Suicidal Behaviors: Definitional Obfuscation and Treatment Outcomes. Ann N Y Acad Sci; 836: 302-28.
borderline personality disorderSI - Borderline Personality Disorder Severity Index (Arntz et al, 2003)
PHI - Parasuicide History Interview (Linehan et al, 1989)

5.2.12 Study populations

Study populations are predominantly female, particularly in trials of DBT; this is unrepresentative of men with borderline personality disorder, who are less likely to present to services, although evidence from community samples suggest that borderline personality disorder is equally prevalent in men (Meltzer et al. 2000). Age ranges in trials are also unrepresentative of older populations. Evidence is lacking for the effects of psychological therapies in people with borderline personality disorder from black and ethnic minority groups.

5.2.13 Potential sources of bias

Publication bias

There were too few studies to undertake funnel plots to ascertain publication bias so this could not be explored. However, unpublished studies were sought and included where possible.

Product champions

See section 5.2.7 above

5.2.14 Sub-analyses

Since the dataset is fairly small and there are a large number of outcomes, with different rating scales being used for the same outcome, the following sub-analyses were planned *a priori* to explore potential moderators:

Potential moderator	*Sub-categories*
Length of treatment	< 6 months vs > 6 months
Manualised	Yes vs No
Number of sessions	
Type of therapy	CBT-related vs Psychodynamic-focussed
Therapist experience	
Author allegiance	

However, since the RCTs had few outcomes in common, it was not possible to undertaken these sub-analyses. Therapist experience and author allegiance are described.

5.3 Complex interventions

5.3.1 RCT evidence

The majority of the RCTs of complex interventions were of DBT, with one trial of mentalisation based therapy/partial hospitalisation.

Dialectical behaviour therapy

Nine RCTs of DBT met inclusion criteria with two being excluded (see Appendix 16). Trials all followed the manualised treatment designed by Marsha Linehan (1993), although several modified it. In two trials this was for substance-dependent populations (LINEHAN1999, 2002) and these trials were not included in the main review of RCTs since these populations are outside the scope of the guideline. However, since substance abuse and dependence are important issues in the treatment of people with borderline personality disorder, the studies are discussed in the narrative.

There was a range of patient populations represented in the included trials: outpatients (CLARKIN2004, LINEHAN1991, VANDENBOSCH2002); primary care (KOONS2001); and referrals to a community mental health outpatient clinic following emergency department treatment for a suicide attempt (TURNER2000). Note that CLARKIN2004 was a 3-armed trial of DBT, transference-focused psychotherapy and modified psychodynamic supportive psychotherapy, but included no extractable data. Further details of the studies (including the two in substance-dependent populations) are in Table 12.

Table 12 Summary study characteristics of RCTs of DBT

Study Id	*N*	*Population*	*Standard DBT or adapted?*	*Length of treatment*	*Manualised*	*Number of sessions*	*Therapist experienced?*	*Author allegiance*	*Comparator*	*Comparator details*	*Other interventions*
CARTER unpub	76	borderline personality disorder	Modified but modification unclear	1 year but outcomes taken at 6 months	Y	Weekly (individual & group)	Not reported		Waitlist	N/A	Not reported
CLARKIN2004*	90	borderline personality disorder	Standard	1 year	Y	Weekly (individual & group)	Yes		(1) Transference focused therapy (2) Supportive psychotherapy	(1) Structured 2xweekly sessions (2) 1 or 2xweekly sessions	Medication as needed
KOONS2001	28	borderline personality disorder (women veterans)	Standard	6 months	Y	Weekly (individual & group)	Yes		TAU	Weekly individual therapy at discretion of therapist plus supportive/psychoeducational groups	
LINEHAN1991	63	borderline personality disorder + parasuicidal	Standard	1 year	Y	Weekly (individual & group)	Yes		TAU	Referral to other therapy	Medication tapered off
LINEHAN2006	101	borderline personality disorder + self-harm	Standard	1 year	Y	Weekly (individual & group)			Community treatment by experts	1 session per week; similar to TAU, so treatment uncontrolled, but therapist characteristics controlled for	
TURNER2000	24	borderline personality disorder	Modified to include	1 year	Y	Weekly or twice weekly			Client-centred therapy	2xweekly; emphasizes	Drugs as needed

			psychodynamic techniques and skills training in individual sessions			(between 49 and 84 sessions)				patient's sense of aloneness and provides supportive atmosphere for individuation - 1) increased support during crises, 2) problem assessment 3) supportive treatment, 4) termination	
VAN DEN BOSCH2002	64	borderline personality disorder (women with/without substance abuse)	Standard	1 year	Y	Weekly (individual & group)			TAU	Ongoing outpatient treatment from original referral source	

* 3-armed trial; no efficacy data

Mentalisation/day hospital treatment

One trial reported a treatment combining mentalisation-based therapy with day hospital treatment (BATEMAN1999). See Table 13 for further details.

Table 13 Summary study characteristics of RCTs of mentalisation/day hospital

	Partial-hospitalisation/mentalisation-based treatment
No. trials (Total participants)	1 RCT (44)
Study IDs	BATEMAN1999
N/% female	44/50
Mean age (or range if not given)	32
Axis I/II disorders	100% borderline personality disorder
Comparator	Standard care
Additional intervention	
Setting	Day hospital
Length of treatment	18 months
Length of follow-up	5 years

Evidence profile for complex interventions

A wide range of outcomes were reported, which also included some follow-up data. The summary evidence profiles are in Table 14, Table 15, Table 16, and Table 17.

Compared with treatment as usual, complex interventions showed some effect on anxiety, depression and symptoms of borderline personality disorder, although the evidence quality was moderate. These interventions also retained people in treatment compared with treatment as usual. People with borderline personality disorder also reported better employment outcomes (number of years in employment) following a complex intervention (specifically MBT with partial hospitalisation) at 5-year follow-up.

Table 14 Summary evidence profile for complex interventions versus treatment as usual: general outcomes

Symptom	**Anger**	**Anxiety**	**Depression**	**Mental distress**	**borderline personality disorder symptoms**	**Employment-related** (No years employment)	**General functioning**	**Leaving treatment early due to side effects**
Therapy	DBT	DBT (MBT at follow-	DBT (MBT for self-rated)	MBT	DBT (MBT at follow-	MBT	MBT	DBT MBT

		up)			up)			
Clinician-rated effect size	SMD = -0.59 (-1.52, 0.35)	SMD = -1.22 (-1.92, -0.52)**	SMD = -0.57 (-0.92, -0.22)*	SMD = -0.39 (-1.03, 0.26)	SMD = -0.6 (-2.34, 1.14)+			RR = 0.61 (0.43, 0.86) (23% vs 39%)
Quality of evidence	Very low	Moderate	Moderate	Very low	Moderate			Moderate
Number of studies/participants	(K = 1; n=19)	(K = 1; n=38)	(K = 3; n=133)	(K = 1; n=38)	(K = 1; n=20)			(K = 5; n=294)
Forest plot	Psych 01.01	Psych 01.02	Psych 01.05	Psych 01.9	Psych 01.12			Psych 01.16
Clinician-rated effect size at follow-up 1	SMD = -0.91 (-1.99, 0.18) (12 months)	SMD = -3.49 (-4.63, -2.36) (18 months)		SMD = -2.09 (-2.93, -1.25) (18 months)				
Quality of evidence	Moderate	Moderate		Very low				
Number of studies/participants	(K = 1; n=15)	(K = 1; n=33)		(K = 1; n=36)				
Forest plot	Psych 01.01	Psych 01.02		Psych 01.9				
Clinician-rated effect size at follow-up 2	SMD = -0.59 (-1.52, 0.35) (24 months)				SMD = -9.6 (-12.83, -6.38)+ (5 years)	WMD = -2 (-3.29, -0.71)+ (5 years)	SMD = -0.74 (-1.38, -0.1) 5 years	
Quality of evidence	Very low				Moderate	Moderate	Moderate	
Number of studies/participants	(K = 1; n=19)				(K = 1; n=41)	(K = 1; n=41)	(K = 1; n=41)	
Forest plot	Psych 01.01				Psych 01.12	Psych 01.14	Psych 01.15	
Self-rated effect size	None reported	SMD = -0.7 (-1.53, 0.13)+	SMD = -1.49 (-1.99, -0.99)+					
Quality of evidence		Moderate	Moderate					
Number of studies/participants		(K = 1; n=24)	(K = 3; n=82)					
Forest plot		Psych 01.03	Psych 01.05					
Self-rated effect size at follow-up			SMD = -1.15 (-1.85, -0.45) (18 months)					
Quality of evidence			Moderate					
Number of studies/participants			(K = 1; n=38)					
Forest plot			Psych 01.06					

+ based on skewed data

** 2 different measures of anxiety were reported which the GDG did not consider could be combined (HARS and STAI state anxiety). Since the effect sizes from both measures were very similar, only one is reported here (STAI state anxiety)

Complex interventions also showed some benefit on the rate of self-harm and suicidal ideation, with benefits persisting at follow-up (measured at 5 years for MBT with partial hospitalisation only). One study of DBT, LINEHAN2002, did not provide extractable data in the paper, although reported that there was no effect of treatment on parasuicide rates of treatment (measured using PHI).

Table 15 Summary evidence profile for complex interventions versus treatment as usual: self-harm and suicide-related outcomes

Outcome	Self-harm	Self-harm and suicidal acts reported together	Self-harm with suicidal intent	Beck Suicidal Ideation Scale	Suicide attempts	No of A&E visits (presumed due to self-harm)
Therapy	DBT	DBT	DBT	DBT	MBT	MBT
Continuous data effect sizes	WMD = -0.17 (-2.15, 1.82)+	WMD (random effects) = -2.50 (-6.63, 1.62)+	WMD = -0.2 (-0.55, 0.15)+	SMD = -1.04 (-1.68, -0.4)+		
Quality of evidence	Moderate	Very low	Very low	Moderate		
Number of studies/participants	(K = 3; n=185)	(K = 2; n=44)	(K = 1; n=44)	(K = 2; n=44)		
Forest plot	Psych 01.07	Psych 01.07	Psych 01.07	Psych 01.07		
Continuous data effect sizes at follow-up 1					SMD = -0.63 (-1.26, 0) (5 years)+	SMD = -1.4 (-2.09, -0.7)+ (5 years)
Quality of evidence					Moderate	Moderate
Number of studies/participants					(K = 1; n=41)	(K = 1; n=41)
Forest plot					Psych 01.07	Psych 01.07
Therapy	DBT MBT				DBT MBT (MBT only at follow-up)	
Dichotomous data effect sizes	RR = 0.54 (0.34, 0.86) (33% vs 58%)				RR (random effects) = 0.37 (0.16, 0.87) (15% vs 37%)	
Quality of evidence	Moderate				Moderate	
Number of studies/participants	(K = 2; n=96)				(K = 4; n=260)	
Forest plot	Psych 01.8				Psych 01.8	
Dichotomous data at follow-up 1					RR = 0.31 (0.14, 0.7) (23% vs 74%)	

					(5 years)	
Quality of evidence					Moderate	
Number of studies/participants					(K = 1; n=41)	
Forest plot					Psych 01.8	

+ based on skewed data

Complex interventions also had some benefit on service-use outcomes such as hospital admissions and emergency department visits. MBT with partial hospitalisation also reduced the amount of psychiatric outpatient treatment required and the number of years on 3 or more drugs at 5-year follow-up.

Table 16 Summary evidence profile for complex interventions versus treatment as usual: service-use outcomes

(Outcomes based on number of participants >= 1 visit or admission unless stated)

Outcome	Emergency Department Visits for Psychiatric reasons	Emergency Department Visits for suicide ideation (endpoint)	Hospital admission for psychiatric reasons	Hospital admission for suicidal ideation	Hospital admission for self-harm	No on medication at endpoint	No years further psychiatric outpatient treatment	No years on 3 or more drugs (5-year follow-up)
Therapy	DBT	DBT	DBT	DBT	DBT	MBT	MBT	MBT
Continuous data effect sizes			WMD (random effects) = -5.42 (-14.01, 3.17)**+		WMD = -0.72 (-1.97, 0.53)**+			
Quality of evidence			Very low		Moderate			
Number of studies/participants			(K = 3; n=136)		(K = 1; n=73)			
Forest plot			Psych 01.11		Psych 01.11			
Continuous data at follow-up 1			WMD = -0.45 (-0.57, -0.33) (24 months)+					
Quality of evidence			Moderate					
Number of studies/participants			(K = 1; n=37)					
Forest plot			Psych 01.11					
Continuous data at follow-up 2	WMD = -5.63 (-8.23, -3.03) (5 years)		WMD = -5.93 (-8.47, -3.39) **+(5 years)				WMD = -1.6 (-2.64, -0.56) +(5 years)	WMD = -1.7 (-2.56, -0.84) +(5 years)
Quality	Moderate		Moderate				Moderate	Moderate

of evidence								
Number of studies/participants	(K = 1; n=41)		(K = 1; n=41)				(K = 1; n=73)	(K = 1; n=73)
Forest plot			Psych 01.11				Psych 01.11	Psych 01.11
Dichotomous data effect sizes	RR = 0.61 (0.42, 0.89)	RR = 0.48 (0.22, 1.04)	RR = 0.54 (0.32, 0.91)**	RR = 0.28 (0.11, 0.71)	RR = 0.82 (0.36, 1.89)	RR = 0.47 (0.25, 0.88)		
Quality of evidence	Moderate	Moderate	Moderate	Moderate	Very low	Moderate		
Number of studies/participants	(K = 1; n=89)	(K = 1; n=89)	(K = 2; n=162)	(K = 1; n=89)	(K = 1; n=73)	(K = 1; n=38)		
Forest plot	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10		
Dichotomous data at follow-up 1	RR = 0.65 (0.35, 1.23) (24 months)	RR = 0.63 (0.21, 1.91) (24 months)	RR = 1.05 (0.47, 2.32) (24 months)	RR = 0.89 (0.33, 2.41) (24 months)				
Quality of evidence	Very low	Very low	Very low	Very low				
Number of studies/participants	(K = 1; n=81)	(K = 1; n=81)	(K = 1; n=81)	(K = 1; n=81)				
Forest plot	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10				

+ based on skewed data

** based on number of days' admission

There was some benefit for complex interventions on social functioning outcomes on employment performance, but not on other outcomes.

Table 17 Summary evidence profile for complex interventions versus treatment as usual: social functioning outcomes

Outcome	Social Adjustment Scale - work performance (18 months)	Social Adjustment Scale - anxious rumination (18 months)	Social Adjustment Scale - employment performance (18 months)
Therapy	DBT	DBT	DBT
Continuous data effect sizes	SMD = -0.33 (-0.9, 0.24)	SMD = -0.71 (-1.56, 0.14)	SMD = -0.8 (-1.4, -0.2)
Quality of evidence	Moderate	Very low	Moderate
Number of studies/participants	(K = 1; n=14)	(K = 1; n=13)	(K = 1; n=10)
Forest plot	Psych 01.13	Psych 01.13	Psych 01.13
Continuous data at follow-up 1	SMD = -0.44 (-1.18, 0.3)	SMD = -0.44 (-1.42, 0.54)	SMD = -1.04 (-1.73, -0.35)
Quality of	Very low	Very low	Moderate

evidence			
Number of studies/participants	(K = 1; n=14)	(K = 1; n=13)	(K = 1; n=8)
Forest plot	Psych 01.13	Psych 01.13	Psych 01.13

Complex interventions in people with borderline personality disorder and substance dependence

In addition to the RCT evidence of complex interventions in people with a diagnosis of borderline personality disorder, two RCTs reported DBT in people with comorbid substance dependence (LINEHAN1999, 2002). These reported a range of drug-related outcomes. DBT helped to improve the proportion of days abstinent from drugs and alcohol (at endpoint and 16-month follow-up), but did not increase the proportion with clean urin-analyses or self-reported days' abstinence from heroin.

5.3.2 Non-RCT evidence of complex interventions

Seven non-RCTs were found of complex interventions, all of DBT. In addition, the outline findings of an unpublished study were also made available to the GDG (ANDREA unpub). Study characteristics are in Table 18.

Table 18 Non-randomised studies of complex interventions

	Complex interventions
No. trials (Total participants)	8 non- randomised studies (397)
Study Ids	(1) ALPER2001 (2) ANDREA unpub (3) BARLEY1993 (4) CUNNINGHAM2004 (5) HARLEY2007 (6) LANIUS2003 (7) MCQUILLAN2005 (8) PRENDERGAST2007
N/% female	(1) 15/100 (2) 33 (3) 130/79 (4) 14/100 (5) 49/92 (6) 18/100 (7) 127/81 (8) 11/100
Mean age (or range if not given)	(1) 22-42 (2) not available (3) 16-57 (4) 39 (5) 40 (6) 35 (7) 31 (8) 36
% participants with borderline personality disorder	(1) 100 (2) 100 (3) 100 (4) 100 (5) 100 (6) 100 borderline personality disorder & PTSD (7) 92 (8) 100
Research design	(1) Case series (2) Prospective cohort study (3) Cohort study (4) Qualitative study of patients views (5) Cohort study (6) Cohort study (7) Cohort study (8) Cohort study
Setting	(1) inpatients, US (2) partial hospitalisation, Netherlands (3) inpatients, UK (4) outpatients, US (5) outpatients, US (6) mostly outpatients, Canada (7) outpatients, Switzerland (8) community, Australia
Length of follow-up	(1) no follow-up (2) 18 months (3) no follow-up (4) no follow-up (5) no follow-up (6) no follow-up (7) no follow-up (8) no follow-up

Non-RCT evidence of DBT

ALPER2001

This paper presents outcome data on a case series of 15 'court committed' women with a clinical diagnosis of borderline personality disorder who underwent treatment with nurse-led DBT in an inpatient forensic setting. There was a reduction in the frequency of self-harm over the 4 week period. In addition, the authors conducted qualitative interviews with 4 nurses to describe their experience of administering DBT; their responses were uniformly positive. Despite the considerable methodological limitations, the authors main conclusion was that *'this study provided evidence that DBT is an effective treatment approach for people diagnosed with borderline personality disorder'.*

ANDREA unpub

This was a non-comparative study of mentalisation-based treatment in 33 people with borderline personality disorder. Treatment lasted 18 months and a further 18 months of follow-up data were collected. The study found that suicide attempts and acts of self-harm reduced, as did service use. It also reported improvement in quality of life, depression symptoms, general distress, social and interpersonal functioning.

BARLEY1993

This paper describes the modification and application of outpatient DBT in an American inpatient setting. According to the authors, this is the first time that the use of DBT in an inpatient setting was described. Most of the paper is dedicated to a descriptive account of the treatment program and underlying theory. However, the authors also present some longitudinal data. They compared 'parasuicide rates' occurring among a sample of 130 patients admitted to the DBT PD inpatient unit with those occurring in an unspecified number of patients admitted to a general adult psychiatry unit that maintained a 'consistent non-DBT' treatment program over a parallel 43-month period. The median age of patients treated on the DBT unit was 30 years (range 16-57) and 79% of them were female; their personality status is not described, beyond the statement that they were *'largely severely parasuicidal borderline patient*s'. No descriptive information is given about the patients that were admitted to the general adult psychiatry unit. The authors compared the frequency of self-inflicted injuries and overdoses in 3 time intervals over the 43 month follow-up period: (i) pre-introduction of DBT (19 months), (ii) introduction of DBT (10 months), (iii) a period of active treatment (14 months). The authors present the results of a one-way ANOVA to show that there was a statistically significant change (p= 0.007) in the frequency of parasuicide events across the 3 time periods in those treated on the DBT unit. There was no statistically significant change in the general adult group (p= 0.09). On the basis of these data, the authors conclude that *'DBT has been associated with a significant reduction in the rate of parasuicide'*. In terms of adding to the evidence on the effectiveness of DBT for borderline personality

disorder, no definitive conclusions can be made as the study is of poor quality. No information is given about the general adult control group, the data collection methods used or adherence to treatment /drop-outs and the reduction in self-harm may simply have been explained by these methodological limitations. The main merit of the paper is that it demonstrates that it is feasible to apply DBT in an in-patient setting. The acceptability of in-patient DBT to the patients was not examined.

CUNNINGHAM2004

This qualitative study aimed to further understanding about what makes DBT effective. The study was conducted within an Assertive Community Treatment Team based in Kalamazoo, Michigan County. Sixteen percent of the team's case load consisted of people with borderline personality disorder and for the purposes of this study, 14 females with borderline personality disorder were interviewed. Their involvement in the DBT program ranged from 6 months to 3 years (median: 15 months) and their ages ranged from 23-61 years (median: 39). All had previously engaged in parasuicidal behaviour and 11/14 had been previously hospitalized. The frequency of hospitalization and parasuicidal behaviour within the group had diminished over time. All qualitative interviews were conducted by trained students from the local university who had no official connection with the treating team. All interviews were semi-structured, tape recorded and transcribed. The components of DBT (individual therapy, skills training and skills coaching) were each explored in the interviews. Data analysis was aimed at identifying common themes running through the interviews.

All the clients believed that DBT had a positive impact on their lives and all reported that behavioural changes had occurred and that they were leading more manageable lives. All clients talked about a decrease in levels of self-harm. All reported that they were better at interacting with others. They also believed that they had a better ability to modulate their emotions and pursue non-mood dependent goals. Although some felt that their level of suffering had diminished, most reported that they continued to suffer. Nevertheless, clients consistently expressed higher levels of hope and fundamentally they reported that DBT had helped them to build a 'life worth living'.

HARLEY2007

This paper describes a non-randomised, naturalistic study of 49 American patients with DSM-IV borderline personality disorder, treated within a modified outpatient DBT program. The authors compared pre-post treatment outcomes for those allocated to DBT skills group + DBT-individual therapy *vs.* those allocated to the skills group + non-DBT-individual therapy. 67 patients completed intake procedures, of whom 49 (73%) were eligible to participate in the study. In addition to meeting SCID-II criteria for borderline personality disorder, inclusion criteria for treatment in the skills group included the identification of appropriate behavioural goals and commitment to DBT goals

via a written contract (the number of referred patients who were excluded is not described). Patients entering the DBT program contracted to participate for one full cycle of the skills group and to attend concurrent weekly individual therapy. All patients completed the Personality Assessment Inventory (PAI; a 344 self-report measure of borderline personality disorder psychopathology) and the Schwartz Outcome Scale (SOS; a 10-item self-report measure of outcomes including life satisfaction). Fifty-one percent (n= 25) dropped out of group treatment and pre-post comparisons are only provided on those who completed treatment. 16/23 (70%) of group participants whose individual therapists were located outside of the hospital system failed to complete a full cycle of group treatment. This compared with 9/26 (35%) of group participants whose individual therapists were 'in-system'. After completion of one skills group cycle, statistically significant reductions in symptom severity were observed on each of the PAI subscales and SOS, with the exception of PAI anxiety subscale. When the analyses were re-run using only those patients receiving non-DBT individual therapy (n=14), the results remained the same.

This study demonstrated that a modified DBT program for patients with borderline personality disorder could be successfully implemented in a 'real-world, resource limited setting'. Patients completing one cycle of skills treatment showed significant improvement in the severity of their psychopathology, although no conclusions can be drawn about treatment efficacy as patients were highly selected for treatment and there was no control group. It is possible that the 'in-system therapists' enhance retention into a treatment program by means of improved coordination of care between individual and group therapists.

LANIUS2003

This letter presents some brief descriptive data from a case series of 18 Canadian women who fulfilled DSM-IV criteria (on clinical grounds) for borderline personality disorder and PTSD and who were treated with DBT in a largely out-patient setting. The sample included women with co-morbidity including bipolar disorder, major depression and eating disorders. The authors examined the patients' use of resources and employment status pre-treatment and 1 year after a course of DBT. One-year outcome data showed that there was a 65% decrease in duration of inpatient stay, a 45% decrease in the number of emergency room visits, a 153% increase in outpatient visits and a 700% (n= 1 pre-treatment; n= 8 at one year) increase in employment. The main limitations of these data include the absence of any control group and the very small sample size. Little can be concluded from the letter, short of the fact that DBT might be a promising treatment.

MCQUILLAN2005

This study examined pre-post symptom scores in a group of 87 Swiss patients who were 'in crisis' and admitted to an intensive 3-week out-patient DBT

program. Over the 2-year study period, 127 patients were referred to the program, of whom, 87 (69%) were admitted and 40 were referred elsewhere. All patients were screened for personality disorder using the IPDE screening questionnaire. Patients also completed the Beck Depression Inventory (BDI), the Beck Hopelessness Scale (BHS) and the Social Adaptation Self-Evaluation Scale (SASS). Those not taken on for DBT had a greater number of antisocial personality traits. Of the 87 who were admitted, 82% completed the program and 18% dropped out. Statistically significant improvements were observed in BDI and BHS scores, although there was no significant change in SASS score.

There are confusing disparities between the numbers presented in the Abstract and those presented in the Results (6 patients are unaccounted for in the Results). In addition, the study failed to achieve its main aim (to examine effectiveness of this form of DBT) because of its naturalistic design and the absence of a control group. However, against this, an impressively high proportion of the referred sample was taken on for treatment (in contrast to more rigorous RCTs employing strict exclusion criteria) which increases the generalisability of the findings. Moreover, the majority of patients that were taken on for treatment were able to complete treatment and there were significant improvements in hopelessness and depressive symptoms. These findings suggest that out-patient DBT is deliverable and may be helpful for people with borderline personality disorder who are in crisis. The effectiveness of such treatment is however unclear.

PRENDERGAST2007

This paper describes the 6-month treatment outcomes of a case series of 11 Australian women who met DSM-IV criteria (on clinical grounds) for borderline personality disorder. Their mean age was 37 years and the majority had a co-morbid Axis 1 diagnosis. They were all treated in the community. Originally, 16 women entered into two DBT programs, although 5 dropped out of treatment (those dropping out of treatment had more hospital admissions in the 6 months prior to the DBT group). Data is presented on 20 outcomes and although nine of the outcomes are significantly improved at the 5% level at 6 months, the authors main outcome variable of interest (frequency of self-harm) failed to significantly change. Notwithstanding, in the abstract, the authors state that *'DBT is an effective treatment for parasuicidal behaviour'*. The main value of the study is that the (non-Linehan affiliated) authors appear to have demonstrated that DBT can be applied in an Australian context. The data are limited in terms of the absence of any control group and the very small sample size.

Summary of non-RCT evidence of DBT

All of the above papers provide some evidence to suggest that it is feasible to apply DBT (with minor modifications described) in a variety of settings (in-patient, out-patient and community). However, none of these papers add weight to the evidence as to whether DBT is or is not an effective treatment

for borderline personality disorder. This is because methodological quality was poor (and in some cases very poor). Many of the papers reached conclusions which were not justified on the basis of the data presented or the quality of the methods used. The qualitative study (Cunningham et al) provides some intriguing insights into what might constitute the effective ingredients of DBT.

Non-RCT evidence of other complex interventions

GABBARD2000

This study monitored 216 patients, representing a sub-sample of those initially entered into the study, diagnosed as having personality disorders who were admitted to two specialist inpatient units for specialist treatment. Interventions within the milieu therapy included 2-3 times per week psychodynamic psychotherapy, group therapy, patient and staff groups and daily meetings with the psychiatrist. There were marked differences in patient drop out between the two sites (10.7 'v' 75.5%) possibly related to the introduction of managed care. Patient length of stay varied widely with a median of 58 days. Substantial changes, especially on the Global Assessment Scale were reported at the end of treatment and at 1-year follow-up. Outcomes for borderline personality disorder are not reported separately.

LOFFLER-STASTKA2003

20 patients with borderline personality disorder, half of whom were male, were treated with psychoanalytically-oriented psychotherapy in an inpatient setting for 6-weeks as a preparation for out-patient psychotherapy. Treatment consisted of an initial diagnostic and clarification phase followed by psychotherapy including individual and group psychoanalytic therapy, group ergotherapy focusing on perceptiveness, music therapy, and skills training. Measures were used to assess anxiety levels (STAI), aggression, interpersonal problems, and locus of control. Significant predictors of engagement in further out-patient psychotherapy were being female, having subjective recognition of interpersonal problems, and experiencing a generalized negative concept of own capacities. High reactive readiness for aggression and thorough conviction of self-efficacy predicted non-engagement in further psychotherapy. A correlation between aggression, belief in capability of one's self and severity of interpersonal problems was found only in psychotherapy non-users.

5.3.3 Clinical summary for complex interventions

The RCT evidence for complex interventions showed some benefit in reducing symptoms such as anxiety and depression. They also have some benefit on rates of self-harm. Most of the evidence is of moderate quality, and the majority is of DBT, with a single study of MBT with partial hospitalisation. The non-RCT evidence provides support for the feasibility of using DBT in various settings. There is no high quality evidence for the efficacy of therapeutic communities in the treatment of borderline personality disorder.

5.3.4 Health economics evidence on complex interventions

The systematic search of economic literature identified two studies that assessed the cost-effectiveness of complex interventions for borderline personality disorder (Brazier *et al.*, 2006; Bateman & Fonagy, 2003). Details on the methods used for the systematic search of the economic literature are described in Chapter 3.

A recent Health Technology Assessment (HTA) (Brazier *et al.*, 2006) evaluated the effectiveness and cost effectiveness of psychological interventions for borderline personality disorder. Assessment of cost-effectiveness was not based on a formal decision-analytic modelling approach; the authors felt that such approach was not useful in the area of borderline personality disorder for the following reasons:

- Borderline personality disorder has a complex nature and there is lack of evidence for a well-defined treatment pathway.
- Clinical evidence identified by systematic search of the literature was limited and diverse and did not allow for meta-analysis and subsequent use of pooled data in a single decision-analytic model.

Therefore, the authors decided to undertake separate cost-effectiveness analyses for every RCT included in their systematic review, using a combination of data reported in the published papers and unpublished trial data sets sent by the investigators, and a regression model relating length of inpatient stay and parasuicide events to costs. Suitable data that could be used for this economic exercise were identified in six RCTs; of these, four involved DBT, one MBT, and one manual-assisted cognitive therapy.

The economic analyses adopted a government perspective, including costs to the NHS, personal social services (PSS), and criminal justice system. Analyses from the perspective of the NHS and PSS, as recommended by NICE (The Guidelines Manual [NICE, 2006]), and from a wider societal perspective were employed in one-way sensitivity analyses. Costs in the base-case analysis included intervention and staff supervision costs, hospital service costs (inpatient and outpatient care, day hospital, A&E services and medication), community health service costs (primary care, mental health teams, counselling, psychologists and psychiatrists' time), community accommodation costs, social service costs (day centres, specialist education facilities, sheltered workshops, social workers), as well as criminal justice system costs. Voluntary sector service costs and productivity losses were examined in sensitivity analyses exploring cost effectiveness from a societal perspective. Intervention costs were estimated according to descriptions of the published papers of trials regarding the number of sessions (individual and group) provided and further assumptions. The types of therapists involved were determined based on a survey of DBT practitioners in the UK. Staff supervision costs were based on information provided in three DBT

trials and further assumptions. Costs associated with extra training and telephone consultations were not included in the analyses, because they were deemed to be overall negligible (training costs), or similar between the two arms of the analyses (telephone consultation costs).

The majority of other resource use data, such as those related to hospital and community health services, social and voluntary services, community accommodation and criminal justice system, as well as data on productivity losses were available for three trials, either in the published papers or from data supplied by the trial investigators to Brazier and colleagues (2006). Of the rest three studies, two reported only data on inpatient length of hospital stay, and one had no available data on resource use. To overcome this scarcity in data, the authors developed a regression cost model, linking inpatient length of stay and parasuicide events with costs, based on UK patient-level trial data (Byford *et al.*, 2003, economic analysis of TYRER2003). Unit costs were taken from national sources (Curtis & Netten, 2003). All costs were uplifted to 2003/2004 prices. Outcomes were expressed in all six analyses as the number of parasuicide events avoided, since this measure of outcome was reported in all RCTs included in the economic analyses. In addition, where available data permitted, outcomes were expressed in the form of Quality Adjusted Life Years (QALYs): one of the trials had used a preference-based measure that could directly be converted into QALYs. Three other trials had reported data on BDI scores; this measure had been previously mapped onto the EQ-5D, which allowed the authors to generate QALYs for these trials, too. The time horizon of all six analyses was 12 months.

Results were reported as incremental cost per parasuicide event avoided and cost per QALY. Probabilistic sensitivity analysis was employed to explore the impact of the uncertainty characterising the model input parameters on cost effectiveness results: all variables in the analyses were simultaneously varied randomly over a range of plausible values in 10,000 simulations, thus generating a distribution of cost effectiveness results. The outcome of probabilistic sensitivity analyses was presented in the form of Cost Effectiveness Acceptability Curves (CEACs), which demonstrated the probability of the evaluated intervention being cost-effective after taking into account the underlying joint uncertainty in model input parameters. In addition, one-way sensitivity analyses explored the impact of the chosen perspective on the results (government, NICE or societal, as described above), as well as the supervision costs of DBT relative to its comparators.

Dialectical behaviour therapy

Four RCTs assessing the clinical effectiveness of DBT were included in the economic analyses conducted by Brazier and colleagues (2006). All four studies have also been included in the systematic review of clinical evidence conducted for this guideline (TURNER2000; LINEHAN1991; VAN DEN BOSCH2002, KOONS2001 - see Table 12 for more details on the study characteristics).

TURNER2000 evaluated the clinical effectiveness of DBT versus client-centred therapy in 24 people with borderline personality disorder in the US. The study reported suicidal/self-harming behaviour and BDI scores of participants. The latter were converted into QALYs by Brazier and colleagues, using the mapping function between BDI and EQ-5D. No data were available on resource use apart from those related to provision of the interventions and inpatient length of stay; therefore, the regression cost model was applied in order to estimate total costs for economic modelling.

According to the results of the economic analysis, DBT was overall cheaper than client-centred therapy (£15,743 versus £20,985, respectively). Extra intervention costs were offset by savings in health, social and criminal justice service costs. At the same time DBT resulted in significantly fewer parasuicide events compared to client-centred therapy (2.92 versus 12.33 per person, respectively) and a better health-related quality of life, as expressed in QALYs gained over a year (0.17 versus 0.05). Given the above findings, DBT was the dominant strategy (cheaper and more effective than its comparator). Probabilistic sensitivity analysis showed that the probability of DBT being cheaper and more effective than client-centred therapy was 80% when the measure of outcome was the reduction in parasuicide events, or 85% when outcome was measured in the form of QALYs. The probability of DBT being cost-effective was 85% at a willingness to pay λ=£5,000 per parasuicide event avoided, and 90% at a willingness to pay λ=£20,000 per QALY. Results were insensitive to changes in the analysis perspective (NICE or societal) and supervision costs.

LINEHAN1991 compared the clinical effectiveness between DBT and TAU. The study population consisted of 63 chronically parasuicidal women with borderline personality disorder in the US. The study reported parasuicide events measured using the PHI. Although some data on BDI were available, these were not possible to convert into QALYs. Resource use data and costs were available; as the study was conducted in the US, Brazier and colleagues re-estimated costs based on reported resource use and further assumptions, to reflect clinical practice in the UK.

DBT was overall cheaper than its comparator also in this case (DBT £15,691; TAU £16,898). Additional intervention costs were outweighed by reductions in overall service costs. DBT led to significantly lower number of parasuicide events than TAU per person (6.82 versus 33.54, respectively); consequently it was shown again to be the dominant strategy. The probability of DBT being cheaper and more effective than TAU was 53%, whereas the probability of being cost-effective was 60% at a willingness to pay λ=£5,000 per parasuicide event avoided. Results were insensitive to changes in the analysis perspective (NICE or societal) and supervision costs.

VAN DEN BOSCH2002 also examined the clinical effectiveness of DBT versus TAU in women with borderline personality disorder, with or without comorbid substance abuse. The study was undertaken in the Netherlands on an initial sample of 47 women. The number of parasuicide events was estimated by Brazier and colleagues from LPC trial data provided by the trial investigators. The BDI was not used to estimate QALYs in this study. Regarding resource use, the only data available were those related to interventions assessed and inpatient length of stay. The regression cost model developed by Brazier and colleagues was applied in this case, too, in order to estimate total costs for the economic model.

DBT was found to be slightly more expensive than TAU (£17,430 versus £16,706, respectively) and resulted in less parasuicide events (16 versus 34.1, respectively). The ICER of DBT versus TAU was £40 per additional parasuicide event avoided. The probability of DBT being more cost-effective than TAU was 65% at any level of willingness to pay per parasuicide event avoided. Results were not affected by adopting the NICE perspective. When the societal perspective was adopted, DBT became the dominant strategy. Results were moderately sensitive to changes in staff supervision costs of the TAU arm.

KOONS2001 assessed the clinical effectiveness of DBT compared with TAU. The study population was 28 women veterans with borderline personality disorder in the US. The number of parasuicide attempts was measured using the PHI. BDI scores were also reported and were linked to QALYs by Brazier and colleagues using the methodology already described. Apart from resource use data on provision of interventions, no other data were available for this trial (including inpatient stay data). In this case, the regression cost model was applied using the number of parasuicide events as the only factor affecting costs. However, the authors of the HTA acknowledged that this model was very crude and its results should be interpreted with extreme caution.

DBT was found to be significantly costlier than TAU in this case (£23,439 versus £14,815, respectively). Its benefits, compared to TAU, were rather small: DBT was associated with 4 parasuicide events and 0.07 QALYs gained, while TAU was associated with slightly more parasuicide events (4.2) and 0.04 QALYs gained. The ICER of DBT versus TAU was very high, at £43,124 per parasuicide event avoided, or £273,801 per QALY. The latter is far beyond the cost effectiveness threshold determined by NICE, which lies between £20,000 and £30,000 per QALY gained (The Guidelines Manual [NICE, 2006]). The probability of DBT being cost-effective in this analysis was lower than 40% at a willingness to pay λ=£5,000 per parasuicide event avoided, and less than 5% at a willingness to pay λ=£20,000 per QALY. One-way sensitivity analysis demonstrated that results were rather insensitive to changes in the perspective or supervision costs for TAU.

The above results of the three economic exercises are inconsistent: in two of the studies (TURNER2000, LINEHAN1991) DBT dominated its comparator (it was more effective and resulted in lower total costs). In one study (VAN DEN BOSCH2002) it was more effective at a slightly higher cost. These three economic analyses indicate that DBT is likely to be a cost-effective intervention. On the other hand, results based on KOONS2001 suggest that DBT is significantly costlier and only slightly more effective than TAU, with very high subsequent ICERs. However, the lack of any inpatient stay data in this trial affected the results of the regression cost-model developed by Brazier and colleagues, since estimated costs were exclusively linked to parasuicide events. This fact may have altered the results, disfavouring DBT; in any case, results of this analysis should, as emphasised by the authors, be interpreted with extreme caution. Still, results of all economic analyses were characterised by substantial uncertainty, as demonstrated in probabilistic sensitivity analysis. The study-specific approach limited the robustness and the generalisability of the results, as clinical studies referred to slightly different study populations, in different settings, and used slightly different instruments to measure outcome. The number of parasuicide events avoided is a limited measure of outcome that cannot capture the overall health-related quality of life of people with borderline personality disorder. Yet, two of the analyses used exclusively the number of parasuicide events avoided as the only measure of outcome, owing to lack of data that would allow measurement of QALYs; only two out of the four studies on DBT modelled outcomes in the form of QALYs. In addition, a significant number of assumptions were required in order to populate the economic models. Nevertheless, this modelling approach suggested that DBT is potentially a cost-effective option, although further research is needed to confirm this preliminary indication.

Mentalisation/day hospital treatment

One study assessing the cost effectiveness of mentalisation/day hospital treatment (MBT) was identified in the systematic economic literature review (Bateman & Fonagy, 2003), which was carried out alongside a RCT (BATEMAN1999, also included in the systematic review of the literature undertaken for this guideline). In addition, Brazier and colleagues (2006) conducted an economic modelling exercise using the same trial.

Bateman and Fonagy (2003) assessed the total costs associated with MBT compared with TAU, in a sample of 41 people with severe parasuicidal borderline personality disorder, participating in a UK-based RCT. The authors collected retrospectively resource use data on inpatient and outpatient care, partial hospitalisation, medication and emergency room visits. Total costs were estimated for 18 and 36 months following initiation of treatment. Analysis of clinical data had demonstrated that MBT was more effective than TAU, as measured by a number of outcomes such as number of suicide attempts and acts of self harm, as well as self-reported measures of

depression, anxiety, general symptom distress, interpersonal function, and social adjustment. Positive outcomes at 18 months remained at 36 months' follow-up. Economic analysis showed that, over the first 18 months, the total cost per person was similar in two arms (total annual cost per person, MBT $27,303, TAU $30,976). However, there was a significant reduction in cost associated with provision of MBT in the next 18 months (total annual cost per person based on data from 18-36 months, MBT $3,183, TAU $15,490). The authors concluded that MBT could lead to great cost-savings, especially in the long term.

Brazier and colleagues (2006) included the above trial (BATEMAN1999) in their economic exercise. The number of suicide and self-harm events was estimated by data supplied by the trial investigators. BDI scores were translated into QALYs using the mapping function between BDI and EQ-5D. Resource use data were already available and only supervision costs were estimated specifically for the economic analysis. In this exercise, and with a time horizon of one year, MBT was found to be slightly costlier that TAU overall (£18,174 versus £17,743, respectively). It was also found to result in significant reduction in parasuicide events experienced by study participants (6.1 events per person for MBT versus 17.5 for TAU), and a higher number of QALYs (0.05 more than TAU). ICER of MBT versus TAU was found to be £38 per parasuicide event avoided, or £7,242 per QALY gained. This value is below the cost effectiveness threshold set by NICE (i.e. below £20,000-£30,000 per QALY; The Guidelines Manual [NICE, 2006]). The probability of MBT being cost-effective was 80% at a willingness to pay λ=£5,000 per parasuicide event avoided but only 55% at a willingness to pay λ=£20,000 per QALY. Results were sensitive to changes in supervision costs for TAU.

The above findings indicate that MBT might be potentially a cost-effective option in the management of borderline personality disorder. However, economic evidence is very limited, based on data from one small RCT only, and characterised by great uncertainty. Future research is needed to explore the cost effectiveness of MBT and reduce the uncertainty characterising it.

Details on the characteristics and results of the studies assessing the cost effectiveness of complex interventions are provided in Appendix 15.

5.4 Individual psychological therapies

5.4.1 RCT evidence

There were 6 RCTs of individual psychological therapies in the treatment of people with borderline personality disorder. The studies were all of different therapies, including CBT (DAVIDSON2006), cognitive analytic therapy (CHANENunpub), schema-focused cognitive therapy (GIESEN-BLOO2006), Systems Training for Emotional Predictability and Problem Solving (BLUM2008), transference-focused psychotherapy (CLARKIN2004), and

individual dynamic psychotherapy (MUNRO-BLUM1995). CLARKIN2004 is a 3-armed trial including DBT and is also considered in the section on DBT. See Table 19 for summary study characteristics.

Table 19 Summary study characteristics of RCTs of individual psychological therapies

	Individual psychological therapies
No. trials (Total participants)	6 RCTs (708)
Study IDs	(1) BLUM2008 (2) CHANENunpub (3) CLARKIN2004** (4) DAVIDSON2006 (5) GIESEN- BLOO2006 (6) MUNROE-BLUM1995
N/% female	(1) 165/81 (2) 78/76 (3) 90/93 (4) 177/82 (5) 88/91 (6) 110/81
Mean age (or range if not given)	(1) 32 (2) 16 (3) 31 (4) 35 (5) 31 (6) 18-62
Axis I/II disorders	(1) 100% borderline personality disorder (2) 100% borderline personality disorder/63% mood disorders/40% anxiety disorder/4% eating disorder/33% substance abuse/26% disruptive behaviour disorder (3) 100% borderline personality disorder/77% mood disorders/48% anxiety disorders/33% eating disorders/38% drug/alcohol dependence (4) 45% axis II disorders (45% BDP)/100% depression (5) borderline personality disorder (6) borderline personality disorder
Treatment	(1) STEPPS (2) CAT (3) Transference-focused psychotherapy (4) CBT (5) Schema-focused therapy (6) Individual dynamic psychotherapy
Comparator	(1) TAU (1) TAU (3) supportive psychotherapy (4) IPT (5) Transference-focused therapy (6) Interpersonal group therapy
Setting	(1) Outpatients (2) Outpatients (3) Mixed sample (4) Mixed sample (5) Outpatients (6) Mixed sample
Length of treatment	(1) 20 weeks (2) 12 months (3) 1 year (4) 16 weeks (5) 1 year (6) 1 year

Length of follow-up	(1) 1 year (2) 1 year (3) None (4) None (5) 24 and 36 months (6) None

* 3-armed trial; no extractable data
CAT = Cognitive Analytic Therapy; IPT = Interpersonal Psychotherapy; STEPPS = Systems Training for Emotional Predictability and Problem Solving

Summary of evidence for individual psychological therapies

A large number of outcomes were reported by the studies of individual psychological interventions (see Table 20).

Individual psychological interventions had very little effect on symptoms compared with treatment as usual, other than for general functioning which showed some improvement (reported by the study of STEPPS).

Table 20 Summary evidence profile for RCTs of individual psychological interventions: general outcomes

Symptom	Anxiety	Depression	Impulsiveness	Mental distress	borderline personality disorder symptoms	Social functioning	General functioning	Quality of life	Leaving treatment early due to side effects
Therapy (all vs TAU unless otherwise stated)	CBT	CBT STEPPS	STEPPS	CBT STEPPS	STEPPS CAT (follow-up only)	CBT	STEPPS CAT (follow-up only)	Schema-focused therapy vs Psychodynamic	CAT CBT STEPPS
Clinician-rated effect size	SMD = -0.03 (-0.43, 0.36)	(self-report) SMD = -0.18 (-0.44, 0.07)+	SMD = -0.29 (-0.64, 0.07)	SMD = -0.18 (-0.45, 0.08)+	SMD = -0.45 (-0.81, -0.1)+	SMD = 0 (-0.39, 0.39)	SMD = -0.55 (-0.91, -0.19)	SMD = 0.29 (-0.11, 0.68)+	RR = 1.28 (0.82, 1.99) (39% vs 28%)
Quality of evidence	Moderate	Very low	Very low	Very low	Very low	Moderate	Moderate	Very low	Very low
Number of studies/participants	(K = 1; n=99)	(K = 2; n=236)	(K = 1; n=124)	(K = 2; n=223)	(K = 1; n=124)	(K = 1; n=99)	(K = 1; n=123)	(K = 1; n=99)	(K = 3; n=357)
Forest plot	Psych 02.01	Psych 02.02	Psych 02.03	Psych 02.04	Psych 02.09	Psych 02.10	Psych 02.11	Psych 02.12	Psych 02.13
Clinician-rated effect size at follow-up 1	SMD = -0.18 (-0.57, 0.21) (24 months)	SMD = -0.15 (-0.54, 0.24)+ (24 months)		SMD = -0.12 (-0.51, 0.27)+ (24 months)	WMD = -0.27 (-2.39, 1.85) (24 months)	SMD = 0.14 (-0.26, 0.53)	SMD = -0.22 (-0.66, 0.23)	SMD = -0.23 (-0.62, 0.16)+ (24 months)	
Quality	Very	Moder		Moder	Very	Moderat	Very	Very	

of evidence	low	ate		ate	low	e	low	low	
Number of studies/participants	(K = 1; n=101)	(K = 1; n=101)		(K = 1; n=101)	(K = 1; n=78)	(K = 1; n=101)	(K = 1; n=78)	(K = 1; n=101)	
Forest plot	Psych 02.01	Psych 02.02		Psych 02.04	Psych 02.09	Psych 02.10	Psych 02.11	Psych 02.12	

+ based on skewed data

Individual psychological interventions also showed little effect on reducing self-harm or suicide attempts compared with treatment as usual, although there was some effect when the two outcomes were reported together (reported by the study of CAT). There was some effect on the number of suicide attempts when this was reported as a continuous rather than dichotomous measure (reported by the study of STEPPS).

Table 21 Summary evidence profile for RCTs of individual psychological interventions: self-harm and suicide-related outcomes

Outcome	Self-harm	Suicide attempts	Self-harm and suicide attempts
Therapy	STEPPS (follow-up only)	CBT STEPPS (follow-up only)	CAT
Effect size		RR = 0.78 (0.47, 1.27) (34% vs 44%)	RR = 0.81 (0.5, 1.31) (41% vs 51%)
Quality of evidence		Very low	Very low
Number of studies/participants		(K = 1; n=101)	(K = 1; n=78)
Forest plot		Psych 02.06	Psych 02.06
follow-up 1	RR = 1.03 (0.71, 1.48) (52% vs 51% (1 year follow-up)	RR = 1.08 (0.53, 2.21) (23% vs 21%) (year follow-up)	RR = 1.8 (0.88, 3.72) (39% vs 22%)
Quality of evidence	Very low	Very low	Moderate
Number of studies/participants	(K = 1; n=108)	(K = 1; n=108)	(K = 1; n=78)
Forest plot	Psych 02.06	Psych 02.06	Psych 02.06
Follow-up 2		RR = 0.8 (0.54, 1.2) (43% vs 54%) (24-month follow-up)	RR = 0.98 (0.51, 1.87) (32% vs 32%)
Quality of evidence		Very low	Very low
Number of studies/participants		(K = 1; n=101)	(K = 1; n=78)
Forest plot		Psych 02.06	Psych 02.06
Continuous data		WMD = -0.41 (-0.72, -0.1)	
Quality of evidence		Moderate	
Number of studies/participants		(K = 1; n=101)	
Forest plot		Psych 02.05	

Continuous data		WMD = -0.86 (-1.82, 0.1) (24 months)	
Quality of evidence		Moderate	
Number of studies/participants		(K = 1; n=101)	
Forest plot		Psych 02.05	

Service outcomes such as hospital attendance and admission in individual psychological interventions were reported only by DAVIDSON2005 (CBT). There was little effect on service use outcomes.

Table 22 Summary evidence profile for RCTs of individual psychological interventions: service use outcomes

Outcome	No A&E contacts	Admission for psychiatric reasons
Therapy	CBT	CBT
Effect size	WMD = -0.24 (-1.98, 1.5)+	WMD = -0.44 (-1.67, 0.79)+
Quality of evidence	Very low	Very low
Number of studies/participants	(K = 1; n=101)	(K = 1; n=101)
Forest plot	Psych 02.07	Psych 02.07
follow-up at 24 months	WMD = -0.15 (-4.26, 3.96) +	WMD = -0.67 (-1.98, 0.64)+
Quality of evidence	Very low	Very low
Number of studies/participants	(K = 1; n=101)	(K = 1; n=101)
Forest plot	Psych 02.07	Psych 02.07

* see Appendix 17

5.4.2 Non-RCT evidence

Fourteen non-RCTs were found of individual psychological interventions. Study characteristics are in Table 23.

Table 23 Non-randomised studies of individual psychological interventions

	CBT	*STEPPS*	*CAT*	*Schema-focused cognitive therapy*	*IPT*	*Psychodynamic psychotherapy*
No. trials (Total participants)	2 non-randomised trials (41)	1 non-randomised trial (52)	1 non-randomised trial (27)	1 non-randomised trial (6)	2 non-randomised trials (64)	6 non-randomised trials (448)
Study Ids	(1) BROWN2004 (2) HENGEVELD1996	(1) BLUM2002	(1) RYLE2000	(1) NORDAHL2005	(1) BELLINO2005 (2) MARKOWITZ2006	(1) CLARKIN2001 (2) GABBARD2000 (3) LEICHSENRING2007 (4) LOFFLER-STASTKA2003 (5) LOPEZ2004 (6) WILBERG1998
N/% female	(1) 32/88 (2) 9/100	(1) 52/94	(1) 27/59	(1) 6/100	(1) 56/57 (2) 8	(1) 23/100 (2) 216/67 (3) 132/86 (4) 20/50 (5) 14/100 (6) 43/77
Mean age (or range if not given)	(1) 29 (2) 31	(1) 33	(1) 34	(1) 26	(1) 27 (2) not reported	(1) 33 (2) 38 (3) 30 (4) 38 (5) 25 (6) 31
% participants with borderline personality disorder	(1) 100 (2) 44	(1) 100	(1) 100	(1) 100	(1) 35, 100% MDD (2) 100	(1) 100 (2) 35 (3) 100 (4) 100 (5) 100 (6) 100
Research design	(1) Cohort study (2) Case series	(1) Cohort study	(1) Case series	(1) Case series	(1) Non-randomised comparative study (2) Abandoned RCT	(1) Non-comparative prospective study (2) Non-comparative prospective study (3) Non-comparative naturalistic study (4) Unclear (5) Non-comparative prospective study (6) Non-comparative prospective study
Setting	(1) outpatients, US	(1) outpatients, US	(1) outpatients, UK	(1) outpatients, Norway	(1) outpatients, Italy	(1) outpatients, US (2) inpatients, US

	(2) outpatients, Netherlands				(2) US	(3) Germany (4) inpatient, followed by outpatient (5) outpatient, Mexico (6) inpatient followed by outpatient, Norway
Length of follow-up	(1) 18 months (2) 10 months	(1) no follow-up	(1) 18 months	(1) 1 year	(1) no follow-up (2) no follow-up	(1) no follow-up (2) 1 year (3) not available (4) 1 year (5) no follow-up (6) no follow-up

STEPPS

BLUM2002

In this study Blum and colleagues monitored changes in symptoms in a cohort of 52 people who made use of the STEPPS programme and conducted a cross-sectional survey of views of service users. It is unclear whether the 52 people who were included in the study represent a complete sample of all those referred to the programme during the study period. Forty-nine (94%) of the study sample were female.

Scores on the Beck Depression Inventory (BDI), the Positive and Negative Affectivity Scale (PANAS) were monitored every week over a 19 week period. All 52 patients attended at least one session and 28 (54%) attended 10 sessions or more. Repeat means analysis demonstrated statistically significant decreases in negative affects on the PANAS, and reductions on total score on the BDI (equivalent to an effect size of 0.78). At the end of the programme, 18 (35%) of the 52 participants completed the 14-item cross-sectional survey which the extent to which people would endorse a series of statements. The mean score on a question about how useful the service was, was 2.4. The mean score on whether, after attending the programme, 'people say I have fewer problems' was 5.6. Negative effects of the programme were not reported.

BROWN2004

In this uncontrolled cohort study patients with borderline personality disorder who reported suicidal ideation or engaged in self-injurious behaviour received weekly CBT over a 12 month period and were followed up over an 18 month period. Individual sessions lasting one hour were supplemented by access to emergency telephone contact with an on-call therapist between sessions.

Two-thirds of the study sample were recruited from mental health practitioners in the public and private sector, with the remainder being

recruited by advertisements in local press or from referrals made by a family member or friend. Of 44 people who met study criteria, seven (16%) failed to completed the baseline assessment and five (11%) declined to participate in the study, the remaining 32 (73%) formed the study sample. Of these 28 (88%) were female and 11 (34%) were in full-time employment. In addition to borderline personality disorder, study participants usually met diagnostic criteria for other mental disorders. Twenty-five (78%) had a major depressive disorder, 13 (41%) had an eating disorder and 23 (72%) met criteria for at least one other PD.

Participants - attended between 3 and 63 sessions, with a mean of 34. Information on the extent of use of telephone contact with therapists is not provided.

Follow-up assessment comprised number of borderline criteria, suicidal ideation and behaviour, hopelessness and depression (using the Hamilton Rating Scale and the Beck Depression Inventory-II) measured at 6, 12 and 18 months. Twenty-nine (91%) people completed the 12 month follow-up interview 24 (83%) completed the interview at 18 months.

Fourteen (48%) of the 29 who completed the 12 month follow-up interview, and 4 (28%) of the 24 who completed the 18 month follow-up interview were judged to still have a diagnosis of borderline personality disorder. The proportion of participants who reported at least one episodes of deliberate self injury in the year before treatment was 88% compared to 34% 12 months after the start of treatment. Intention-to-treat analysis, with last value carried forward for those who failed to complete follow-up interviews was used to examine changes in depression scores. Statistically significant reductions in BDI score of 20 points and HRSD of 11 points were seen between baseline at 18 month follow-up. Negative effects of treatment were not reported.

HENGEVELD1996

Hengeveld and colleagues report a case series of nine female out-patients who had attempted suicide on at least two previous occasions and were offered up to 10 CBT groups. Seven of the nine met criteria for PD - of these 4 had borderline PD. Ten months after the last session recurrence of self harm was examined using telephone contacts with participants and examination of hospital records. Four of the seven participants reported further suicide attempts – all four had borderline PD.

Cognitive analytic therapy (CAT)

RYLE2000

This is a descriptive study of a case series of 27 inner-London patients who received 24-session cognitive analytic therapy and four follow up sessions over approximately one year. The study aimed to examine the scope for out-patient NHS therapy for people with borderline personality disorder and to examine predictors of response. The sample excluded four patients who dropped out of treatment. Patients were re-assessed six months and 18

months after completing therapy (at approximately 18 months and 30 months post-assessment), but nine patients were lost to follow up at the later stage. Most of the patients (21/27) were treated by trainees under supervision. The referral, recruitment, diagnosis, demographic and clinical features and psychometric scores and the response to treatment of a series of patients meeting DSM–IV criteria for borderline personality disorder are described. Diagnosis was made by Personality Assessment Schedule and confirmed by the authors independently rating DSMIV criteria from case notes evidence. Patient characteristics recorded included demographic factors, history of childhood abuse, self-cutting, self-poisoning, alcohol and substance misuse, binge-eating, hospitalization following overdosing, loss of control violence, forensic history and major adverse life events. Psychometric pre-post measures were BDI, IIP, SCL-90 and Social Questionnaire. Changes in self-harm were not reported. Six months after completing therapy, 14 (52%) of the sample no longer met criteria for borderline personality disorder on the PAS and 13 (48%) were judged not to require further treatment. Six month outcomes on the symptom and interpersonal problem measures were significant at the 1% level, and on the social questionnaire at the 5% level. One year outcomes (n=18) were significant at the 5% level for the symptom measures but not the interpersonal or social measures. Only three patient characteristics were associated with non-response (in terms of a continuing borderline personality disorder diagnosis); a poor occupational history, self-cutting either in the past year or at any time and a past history of alcohol abuse. No suicides or other adverse events are reported. The acceptability of CAT to patients was not investigated.

This phase I study is uninformative about CAT efficacy, as it has no control group, suffers from allegiance effects, the key outcome measure was reactive, assessors were not independent and treatment was delivered by unqualified therapists. It suggests shorter-term outpatient weekly psychotherapy is feasible and that CAT is a promising intervention for further research.

Schema-focused cognitive therapy

NORDAHL2005

Nordahl and Nysæter report findings based on a 36 month follow-up study of six women with borderline personality disorder.
In the first instance patients were offered weekly 60-minute sessions of schema-focused cognitive therapy. The frequency of sessions was tailed off during the last 6 months of therapy and people were offered sessions for between 12 and 36 months. Therapy was supported by continuing input from the persons referring physician and a nurse from a community mental health team.
All participants were assessed using SCID I and SCID II at before and after the end of the treatment period. A variety of measures were used to asses

mental distress including the Global Severity Index and the GAF was used to asses global functioning. Post-treatment three of the six women were reported to no longer meet SCID-II criteria for borderline personality disorder. Mean GAF score increased from 52 (pre-treatment) to 68 (post-treatment). Based on self report scores, five of the six women reported marked reductions in symptoms for anxiety and depression. Negative effects of treatment were not reported.

Interpersonal Psychotherapy (IPT)

BELLINO2005

This study compared the efficacy of combined medication and interpersonal psychotherapy in patients with depression and either borderline personality disorder or a different Axis II disorder. 48 patients completed 6-months of treatment. Patients in both groups improved. But patients with depression and borderline personality disorder showed poorer results on global symptomatology (CGI), interpersonal functioning (IIP) and satisfaction in life than depressed patients with other Axis II disorders.

MARKOWITZ2006

Markowitz and colleagues also developed IPT for borderline personality disorder (IPT-borderline personality disorder) and reported on the model and preliminary outcomes from an RCT which was abandoned because of the high drop out rate from the control group. Patients were offered 18 sessions of IPT in a 16-week acute course and an additional 16 weekly continuation sessions depending on the response to the acute phase. The treatment appeared to be acceptable with only two of the eight participants reported on dropping out, both due to substance abuse or dependence. Five participants who completed both phases of treatment showed improvement in depression symptoms and general mental distress as measured by the SCL-90, and other measures including diagnostic criteria. The paper does not provide endpoint data or details of statistical tests, so it is unclear how the authors arrived at their conclusions.

Psychodynamic interventions.

ABBASS2008

A study of 27 people with a range of personality disorders (44% borderline personality disorder) found that an intensive short-term dynamic psychotherapy was effective in reducing symptoms and interpersonal problems compared with a waitlist group (Abbass et al, 2008). Treatment was given in weekly one-hour sessions. Participants received an average of 27.7 (+-20) sessions (range 2-64) which makes it hard to pinpoint what the optimum number of sessions might be.

CLARKIN2001

This study compared number and severity of suicide and self harm attempts, medical and psychiatric service utilization and the global assessment of functioning (GAF) of 23 female patients with borderline personality disorder before and after treatment with 1-year of transference focused psychotherapy. 4 patients dropped out and 2 patients were discharged early following failure to follow the treatment contract. Compared to the year prior to treatment the number of patients who made suicide attempts was significantly lower but there was no significant reduction in number of self-injurious behaviours although medical risk was significantly less. Medical and psychiatric service utilization was significantly reduced. GAF scores are not reported.

LEICHSENRING2007

A naturalistic study in which 132 patients were treated in a single clinic with a psychoanalytically-derived therapy. Standardised measures were used for diagnosis and outcomes included symptom measures and interpersonal functioning including the SCL-90 and the Inventory of Interpersonal Problems (IIP) respectively. Life satisfaction was also assessed. Psychoanalytic-interactional therapy was found to significantly improve all areas of patient functioning.

LOPEZ2004

14 female patients with borderline personality disorder were treated with 48 sessions of transference focused psychotherapy (TFP) provided by therapists with limited levels of training but who received regular supervision from experts. 4 patients dropped out before reaching 24 sessions. Assessments were made at entry, at the mid-point and at the end of treatment. All sessions were video-recorded and all therapists were assessed as adhering to the manual. Patients showed improvements on all measures including diagnostic criteria with remarkable changes in global assessment of function. Improvements were apparent after 24 sessions.

WILBERG1998

This paper is one of a number of reports from the same group of researchers who routinely monitor progress of patients with personality disorder who are being treated in day hospitals who are part of the Norwegian Network of Psychotherapeutic Day Hospitals. Patients are offered 18-weeks of group orientated day hospital treatment followed by out-patient group psychotherapy. This study, a naturalistic follow-up of patients with borderline personality disorder, compared patients treated with a combination of day hospital treatment and subsequent out-patient group therapy with patients treated in the same day hospital but without follow-on out-patient group psychotherapy. The numbers were small but overall at 34 months post-discharge from the day hospital those patients who continued in out-patient group psychotherapy fared significantly better than those who did not.

5.4.3 Clinical summary for individual psychological interventions

There is very little evidence for the efficacy of individual psychological interventions in the treatment of people with borderline personality disorder, as almost all studies are uncontrolled. There was weak evidence that there may be a reduction in self harm and suicide for CAT in adolescents and for STEPPS. The non-RCT evidence suggests that individual psychological interventions are acceptable to people with borderline personality disorder. The generally positive outcomes need to be tested against control conditions in randomised trials.

5.4.4 Health economics evidence on individual psychological interventions

The systematic search of economic literature identified one study that assessed the cost-effectiveness of individual psychological interventions for borderline personality disorder (Palmer *et al.*, 2006). Details on the methods used for the systematic search of the economic literature are described in Chapter 3.

Palmer and colleagues (2006) was a cost-utility analysis undertaken alongside a multicentre RCT conducted in the UK (DAVIDSON2006, included in the systematic review of the literature conducted for this guideline). The study compared CBT on top of TAU versus TAU alone, in a sample of 106 people with borderline personality disorder. Costs included intervention costs, hospital costs (inpatient, outpatient, day case, day hospital, A&E attendances), primary and community care including community day services, accommodation, criminal justice system costs, and patient expenses. QALYs were generated based on EQ-5D scores reported by the study participants. The time horizon of the analysis was 2 years. CBT was found to be overall cheaper than TAU over two years (CBT £12,785 per person versus TAU £18,356 per person in 2003/04 prices); intervention costs in the CBT group were more than offset by a reduction in hospitalisation costs. At the same time, CBT resulted in a lower number of QALYs compared to TAU (CBT 1.06 QALYs per person versus TAU 1.20 QALYs per person). Both differences in cost and outcome were not statistically significant. The ICER of TAU versus CBT was only £6,376/QALY (CBT lay on the south-west quadrant in the cost-effectiveness plane). This value is below the NICE set cost effectiveness threshold of £20,000-£30,000 per QALY gained (The Guidelines Manual [NICE, 2006]). The probability of CBT being cost-effective was 53% at a willingness to pay λ=£2,000/QALY; this probability fell with increasing values of willingness to pay. The results of this analysis indicate that CBT is unlikely to be a cost-effectiveness option for people with borderline personality disorder. A potential limitation of the analysis is the use of EQ-5D for generation of QALYs; this is a generic instrument which may have failed to capture changes in health-related quality of life of people with borderline

personality disorder. Details on the characteristics and results of Palmer and colleagues (2006) are presented on evidence tables in Appendix 15.

5.5 Brief psychological interventions

5.5.1 RCT evidence

Two RCTs of brief psychological therapies were found both of manual-assisted cognitive therapy (TYRER2003; WEINBERG2006), with a further trial being excluded because it was in a mixed PD population and data for people with borderline personality disorder were not reported separately (HUBAND2007).

5.5.2 Manual-assisted cognitive therapy

Summary study characteristics of the two trials of manual-assisted cognitive therapy are in Table 24.

Table 24 Summary study characteristics for studies of MACT

	Manual-assisted cognitive therapy
No. trials (Total participants)	2 RCTs
Study IDs	(1) TYRER2003 (2) WEINBERG2006
N/% female	(1) 70 (borderline personality disorder group only)/ (2) 30/100
Mean age (or range if not given)	(1) (2) 18-40
Axis I/II disorders	borderline personality disorder
Comparator	TAU
Additional intervention	None
Setting	(1) A&E following self-harm (2) Community and outpatients
Length of treatment	(1) (2) 8 weeks
Length of follow-up	(1) (2) 6 months

There is some evidence that a low intensity intervention (MACT) has some effect on reducing self-harm and suicidal acts (reported together as a continuous measure), but no effect when reported as parasuicide as a dichotomous measures. Both these outcomes were reported by a single study so it is hard to draw firm conclusions without further research. There was no evidence of other effects on the symptoms of borderline personality disorder.

Table 25 Summary evidence profile for RCTs of MACT

Symptom	Anxiety	Depression	Self-harm and suicidal acts reported together	No with >=1 episode of parasuicide	General functioning
Therapy (all vs TAU unless otherwise stated)	MACT	MACT	MACT	MACT	MACT
Clinician-rated effect size	SMD = 0.01 (-0.48, 0.5)	SMD = 0.07 (-0.42, 0.56)+	WMD = -3.03 (-5.68, -0.38)+	RR = 0.97 (0.88, 1.07) 94% vs 97%	SMD = -0.17 (-0.67, 0.32)
Quality of evidence	Moderate	Very low	Moderate	Moderate	Very low
Number of studies/participants	(K = 1; n=64)	(K = 1; n=64)	(K = 1; n=28)	(K = 1; n=70)	(K = 1; n=64)
Forest plot	Psych 03.01	Psych 03.02	Psych 03.04	Psych 03.05	Psych 03.07
Clinician-rated effect size at follow-up 1			WMD = -4.71 (-11.16, 1.74)+ (6 months)		
Quality of evidence			Very low		
Number of studies/participants			(K = 1; n=30)		
Forest plot			Psych 03.04		
Dichotomous data			RR = 0.97 (0.88, 1.07) (94% vs 97%)		
Quality of evidence			Moderate		
Number of studies/participants			(K = 1; n=70)		
Forest plot			Psych 03.05		

+ based on skewed data

5.5.3 Health economics evidence on brief psychological interventions

The systematic search of economic literature identified two studies that assessed the cost-effectiveness of brief psychological interventions for borderline personality disorder (Byford *et al.*, 2003; Brazier *et al.*, 2006). The study by Byford and colleagues (2003) evaluated the cost effectiveness of MACT versus TAU; the study was carried out alongside a UK-based RCT (TYRER2003, also included in the systematic review of the literature undertaken for this guideline). In addition, Brazier and colleagues (2006) undertok further economic modelling using data from the same trial. Details on the methods used for the systematic search of the economic literature are described in Chapter 3.

Byford and colleagues (2003) assessed the cost effectiveness of MACT in people with recurrent deliberate self-harm, including people with borderline personality disorder. The analysis included 397 participants. Costs consisted of costs related to hospital and community services, social and voluntary services, accommodation and living expenses, criminal justice system, as well

as productivity losses. Outcomes were expressed as the proportion of people with a repeat self-harm episode and as number of QALYs, generated based on patient-reported EQ-5D scores. Parasuicide events were recorded using the PHI. The time horizon was 12 months. MACT was found to be slightly cheaper than TAU (£13,450 versus £14,288, respectively, in 2000 prices), although this difference was non-significant. MACT was more effective than TAU in terms of proportion of people with a repeat self-harm episode (39% in the MACT group versus 46% in the TAU group, non-significant difference). According to these results, MACT was dominant over TAU. Probabilistic sensitivity analysis demonstrated that the probability of MACT being cost-effective exceeded 90% at any level of willingness to pay for a 1% change in proportion of people with repeat self-harm episodes. In contrast, TAU was shown to be more effective that MACT in terms of QALYs gained (MACT produced 0.118 QALYs less than TAU), although again the difference in QALYs did not reach statistical significance. However, the ICER of TAU versus MACT was £66,000/QALY (MACT lay in the south-west quadrant of the cost effectiveness plane); this figure is above the £20,000-£30,000 per QALY threshold set by NICE (The Guidelines Manual [NICE, 2006]). Probabilistic sensitivity analysis suggested that the probability of MACT being cost-effective ranged between 44%-88%; at a willingness to pay between 0 and 66,000/QALY, MACT had more than 50% probability of being cost-effective. The authors noted that EQ-5D might have been insensitive in capturing changes in health-related quality of life of this patient population. On the other hand, expressing the clinical benefit exclusively by the proportion of people experiencing a repeat self-harm episode may have missed other aspects of the quality of life of these people. Finally, it should be emphasised that the study population consisted of people with recurrent episode of deliberate self-harm, and the results may not be directly transferable to people with borderline personality disorder.

Brazier and colleagues (2006) undertook an additional model-based economic analysis using a sub-set of data from TYRER2003, specific to people with borderline personality disorder, which was available to them by the trial investigators. Full methods of this economic analysis are described in section 6.3.4. Resource use data for the sub-group of people with borderline personality disorder were fully available; only staff supervision costs needed to be estimated for the economic model. EQ-5D scores reported by study participants were used to estimate QALYs in the model-based economic analysis. The results revealed that MACT was somewhat costlier that TAU (£9,580 versus £7,563, respectively). It was also less effective with respect to number of parasuicide events per person (4.9 events per person in the MACT group versus only 1.7 events per person in the TAU group – non-significant difference). Therefore, MACT was dominated by TAU when outcomes were measured as number of parasuicide effects. However, MACT led to a higher number of QALYs compared to TAU (0.19 QALYs versus 0.14 QALYs, respectively). Even in this case, the ICER of MACT versus TAU was

£84,032/QALY, exceeding the NICE cost effectiveness threshold ranging between £20,000 and £30,000 per QALY gained (The Guidelines Manual [NICE, 2006]). The probability of MACT being more cost-effective than TAU was only 45% at willingness to pay λ=£20,000 per QALY. Results were insensitive to changes in the adopted perspective (NICE or societal) and in staff supervision costs of the TAU arm.

The above analysis, referring specifically to people with borderline personality disorder, suggested that MACT is unlikely to be cost-effective as a treatment option for this population. However, a potential limitation of the analysis is, as already been discussed, the use of EQ-5D for generation of QALYs; this is a generic instrument which may have failed to capture changes in health-related quality of life of people with borderline personality disorder. Details on the characteristics and results of Byford and colleagues (2003) and Brazier and colleagues (2006) are presented on evidence tables in Appendix 15.

5.6 Data by outcome

5.6.1 Effect of treatment on anger

Measures of anger were reported in one study. This showed some effect of treatment (DBT) on anger which was sustained at 1 year follow-up but not at 2 years. However, the sample size was very small (n = 26) (smaller at follow-up) so the effect on symptoms is far from certain. See Table 26.

Table 26 Summary evidence table for anger outcomes

Therapy (all vs TAU unless otherwise stated)	DBT
Clinician-rated effect size	SMD = -0.98 (-1.81, -0.16)
Quality of evidence	Moderate
Number of studies/participants	(K = 1; n=26)
Forest plot	Psych 01.01
Clinician-rated effect size at follow-up 1	SMD = -0.91 (-1.99, 0.18)
Quality of evidence	Moderate
Number of studies/participants	(K = 1; n=15)
Forest plot	Psych 01.01
Clinician-rated effect size at follow-up 2	SMD = -0.59 (-1.52, 0.35)
Quality of evidence	Very low
Number of studies/participants	(K = 1; n=19)
Forest plot	Psych 01.01

5.6.2 Effect of treatment on anxiety

Measures of anxiety were reported in 4 studies, using a range of measures which were not possible to combine in meta-analysis. This showed a range of treatment effects. DBT had positive effect on anxiety symptoms, but CBT did not. At follow-up MBT showed large effects whilst CBT did not. However, the sample sizes were mostly fairly small so the effect on symptoms is far from certain. See Table 27.

Table 27 Summary evidence table for anxiety outcomes

	HARS	STAI	HADS	Beck Anxiety Inventory
Clinician-rated effect size	SMD = -1.22 (-2.2, -0.25)	SMD (random effects) = -0.59 (-1.75, 0.57)	SMD = 0.01 (-0.48, 0.5)	SMD = -4.66 (-9.81, 0.49)+
Quality of evidence	Moderate	Very low	Moderate	Very low
Number of studies/participants	(K = 1; n=20)	(K = 2; n=137)	(K = 1; n=64)	(K = 1; n=24)
Forest plot	Psych 06.01	Psych 06.01	Psych 06.01	Psych 06.02
Clinician-rated effect size at follow-up 1 (18 months)		SMD = -3.49 (-4.63, -2.36)		
Quality of evidence		Moderate		
Number of studies/participants		(K = 1; n=33)		
Forest plot		Psych 06.01		
24 months		SMD = -0.18 (-0.57, 0.21)		
Number of studies/participants		Very low		
Forest plot		Psych 06.01		

+ based on skewed data

5.6.3 Effect of treatment on depression

Measures of depression were reported in 6 studies. There was an effect on symptoms for both clinician-rated and self-rated measures which persisted at follow-up (both 18 and 24 months) although only a single study provided follow-up data (MBT with partial hospitalisation). See Table 28.

Table 28 Summary evidence table for depression outcomes

Clinician-rated effect size	SMD (random effects) = -0.45 (-0.92, 0.02)+
Quality of evidence	Moderate
Number of studies/participants	(K = 4; n=197)
Forest plot	Psych 07.01
Self-rated effect size	SMD (random effects) = -0.84 (-1.47, -0.21)+
Quality of evidence	Moderate
Number of studies/participants	(K = 5; n=318)
Forest plot	Psych 07.02
Self-rated effect size at follow-up 1 (12	SMD = -1.15 (-1.85, -0.45)

months)	
Quality of evidence	Moderate
Number of studies/participants	(K = 1; n=38)
Forest plot	Psych 07.02
Self-rated effect size at follow-up 2 (24 months)	SMD = -0.15 (-0.54, 0.24)+
Quality of evidence	Very low
Number of studies/participants	(K = 1; n=101)
Forest plot	Psych 07.02

+ based on skewed data

5.6.4 Effect of treatment on impulsiveness

Measures of impulsiveness were reported in 1 study (STEPPS). There was insufficient data to draw any conclusions about the effect of treatment on impulsiveness. See Table 29.

Table 29 Summary evidence table for impulsiveness outcomes

Clinician-rated effect size	SMD = -0.29 (-0.64, 0.07)
Quality of evidence	Very low
Number of studies/participants	(K = 1; n=124)
Forest plot	Psych 08.01

5.6.5 Effect of treatment on mental distress

Measures of mental distress were reported in 3 studies. There was only a small effect of treatment on mental distress, although follow-up data reported by one study of MBT with partial hospitalisation showed a large effect at 18-month follow-up, whilst another study of CBT showed very little difference at 2-year follow-up. See Table 30.

Table 30 Summary evidence table for mental distress outcomes

Clinician-rated effect size	SMD = -0.21 (-0.46, 0.03)+
Quality of evidence	High
Number of studies/participants	(K = 3; n=261)
Forest plot	Psych 09.01

+ based on skewed data

5.6.6 Effect of treatment on self-harm and suicide-related measures

Measures of self-harm were reported in 12 studies. A range of measures was used (see above) both continuous variables and dichotomous which meant that it was hard to combine more than a few studies in meta-analyses. There was some effect of treatment on reducing self-harm and suicide attempts when these measures were reported dichotomously, otherwise there appeared to be little effect. This may be because the data is weakened by the large range of outcome measures reported as well as the effect of different kinds of treatments. Some studies reported self-harm and suicide attempts as a combined measure, and these showed a small effect on rates (nearly 2

episodes fewer in the treatment group compared with treatment as usual) (DBT and MACT). See Table 31.

Table 31 Summary evidence table for self-harm and suicide-related outcomes

Outcome	Self-harm	Suicide attempts	Self-harm and suicide attempts	Hospital admission for self-harm
Effect size continuous	WMD = -0.17 (-2.15, 1.82)+	WMD = -0.32 (-0.55, -0.09)	WMD = -1.83 (-3.07, -0.59)+	
Quality of evidence	High	High	Moderate	
Number of studies/participants	(K = 3; n=185)	(K = 2; n=145)	(K = 3; n=72)	
Forest plot	Psych 10.01	Psych 10.01	Psych 10.01	
Effect size at follow-up 1	WMD = -4.71 (-11.16, 1.74)+ (6 months)	WMD = -0.47 (-0.9, -0.04)+ (5 years)	WMD = -0.86 (-1.82, 0.1)+ (24 months)	
Quality of evidence	Very low	Moderate	Moderate	
Number of studies/participants	(K = 1; n=30)	(K = 1; n=41)	(K = 1; n=101)	
Forest plot	Psych 10.01	Psych 10.01	Psych 10.01	
Effect size	RR = 0.54 (0.34, 0.86) (33% vs 58%)	RR (random effects) = 0.52 (0.31, 0.89) (21% vs 39%)	RR = 0.97 (0.88, 1.07) (94% vs 97%)	RR = 0.82 (0.36, 1.89) (21% vs 26%)
Quality of evidence	Moderate	Moderate	Moderate	Very low
Number of studies/participants	(K = 1; n=108)	(K = 5; n=361)	(K = 1; n=70)	(K = 1; n=73)
Forest plot	Psych 10.02	Psych 10.02	Psych 10.02	Psych 10.02
follow-up 1	RR = 1.03 (0.71, 1.48) (1 year) 52% vs 51%	RR = 1.08 (0.53, 2.21) (23% vs 21%) 1 year	RR = 0.98 (0.51, 1.87) (32% vs 32%) 24 months	
Quality of evidence	Very low	Very low	Very low	
Number of studies/participants	(K = 1; n=108)	(K = 1; n=108)	(K = 1; n=78)	
Forest plot	Psych 02.06	Psych 10.02	Psych 10.02	
follow-up 2		RR = 0.8 (0.54, 1.2) (43% vs 54%) 24 months		
Quality of evidence		Very low		
Number of studies/participants		(K = 1; n=101)		
Forest plot		Psych 10.02		
Follow-up 3		RR = 0.31 (0.14, 0.7) (23% vs 26%) 5 years		
Quality of evidence		Moderate		
Number of studies/participants		(K = 1; n=41)		
Forest plot		Psych 10.02		

+ based on skewed data

5.6.7 Effect of treatment on service-use measures

Measures of were reported in 7 studies. A range of measures was used both continuous variables and dichotomous which meant that it was hard to combine more than a few studies in meta-analyses. There was little effect of treatment on reducing service use, other than a few outcomes based on single studies. These included number of years' further psychiatric outpatient treatment, number of years on 3 or more drugs, the number on medication at endpoint, and emergency department visits both for any reason and for psychiatric reasons at 5-year follow-up. All these were reported by the study of MBT and partial hospitalisation. DBT also showed some effect on hospital admission for suicidal ideation and emergency department visits for psychiatric reasons. See Table 32 and Table 33.

Table 32 Summary evidence table for service-use outcomes (hospital admission and emergency department visits)

Outcome	No days hospitalised	Hospital admission for psychiatric reasons	Hospital admission for suicidal ideation	Hospital admission for self-harm	Emergency Department Visits (any reason)	Emergency Department Visits for Psychiatric reasons	Emergency Department Visits for suicide ideation (endpoint)
Continuous data effect sizes	WMD (random effects) = -5.42 (-14.01, 3.17)+	WMD = -0.36 (-1.19, 0.46)+		WMD = -4.38 (-17.31, 8.55)	WMD = -0.24 (-1.98, 1.5)+		
Quality of evidence	Very low	Moderate		Very low	Very low		
Number of studies/participants	(K = 3; n=136)	(K = 2; n=174)		(K = 1; n=73)	(K = 1; n=101)		
Forest plot	Psych 11.01	Psych 11.01		Psych 11.01	Psych 11.02		
Continuous data at follow-up 1	WMD = -0.29 (-0.65, 0.07) (18 months)	WMD = -0.67 (-1.98, 0.64)+ (24 months)			WMD = -0.15 (-4.26, 3.96)+ (24 months)	WMD = -5.63 (-8.23, -3.03)+ 5 years (presumed self-harm related)	
Quality of evidence	Moderate	Moderate			Very low	Moderate	
Number of studies/participants	(K = 1; n=15)	(K = 1; n=101)			(K = 1; n=101)	(K = 1; n=41)	
Forest plot	Psych 11.01	Psych 11.01			Psych 11.02	Psych 11.01	
Continuous data at follow-up 3	WMD = -0.45 (-0.57, -0.33)+ (24 months)				WMD = -5.63 (-8.23, -3.03)+ (5 years)		
Quality of evidence	Moderate				Moderate		
Number of studies/participants	(K = 1; n=37)				(K = 1; n=41)		
Forest plot	Psych 11.01				Psych 11.02		

Continuous data at follow-up 2	WMD = -5.93 (-8.47, -3.39)+ 5 years						
Quality of evidence	Moderate						
Number of studies/participants	(K = 1; n=41)						
Forest plot	Psych 11.01						
Dichotomous data effect sizes		RR (random effects) = 0.57 (0.26, 1.24) (19% vs 35%)	RR = 0.28 (0.11, 0.71) (10% vs 36%)	RR = 0.82 (0.36, 1.89) (21% vs 26%)		RR = 0.61 (0.42, 0.89) (44% vs 72%)	RR = 0.48 (0.22, 1.04) (16% vs 33%)
Quality of evidence		Very low	Moderate	Very low		Moderate	Moderate
Number of studies/participants		(K = 2; n=162)	(K = 1; n=89)	(K = 1; n=73)		(K = 1; n=89)	(K = 1; n=89)
Forest plot		Psych 11.03	Psych 11.03	Psych 11.03		Psych 11.03	Psych 11.03
Dichotomous data at follow-up 1		RR = 1.05 (0.47, 2.32) (24% vs 23%) 24 months	RR = 0.89 (0.33, 2.41) (15% vs 18%) 24 months			RR = 0.65 (0.35, 1.23) (26% vs 40%) 24 months	RR = 0.63 (0.21, 1.91) (11% vs 17%) 24 months
Quality of evidence		Very low	Very low			Very low	
Number of studies/participants		(K = 1; n=81)	(K = 1; n=81)			(K = 1; n=81)	
Forest plot		Psych 11.03	Psych 11.03			Psych 11.03	

+ based on skewed data

Table 33 Summary evidence table for service-use outcomes (outpatient services and medication use)

Outcome	No years further psychiatric outpatient treatment (5-year follow-up)	No years on 3 or more drugs (5-year follow-up)	No on medication at endpoint
Continuous data at follow-up	WMD = -1.6 (-2.64, -0.56) +(5 years)	WMD = -1.7 (-2.56, -0.84)+ (5 years)	
Quality of evidence	Moderate	Moderate	
Number of studies/participants	(K = 1; n=41)	(K = 1; n=41)	
Forest plot	Psych 11.01	Psych 11.01	
Dichotomous data effect sizes			
Quality of evidence			RR = 0.47 (0.25, 0.88) (37% vs 79%)
Number of studies/participants			Moderate
Forest plot			(K = 1; n=38)

+ based on skewed data

5.6.8 Effect of treatment on borderline personality disorder symptomatology

Measures of borderline personality disorder symptomatology were reported in 4 studies, although none reported measures which could be combined in meta-analyses. One study of STEPPS showed some effect of treatment on symptoms as measured by the ZAN-borderline personality disorder, and another of MBT with partial hospitalisation showed a large effect at 5 years follow-up. See Table 34.

Table 34 Summary evidence table for borderline personality disorder symptomatology

	No of borderline personality disorder criteria (DSM)	ZAN-borderline personality disorder	SCID-II borderline personality disorder
Clinician-rated effect size	WMD = -0.6 (-2.34, 1.14)+	SMD = -0.45 (-0.81, -0.1)+	WMD = -0.37 (-1.95, 1.21)
Quality of evidence	Very low	Moderate	Very low
Number of studies/participants	(K = 1; n=20)	(K = 1; n=124)	(K = 1; n=78)
Forest plot	Psych 12.01	Psych 12.01	Psych 12.01
Clinician-rated effect size at follow-up 1		SMD = -1.79 (-2.53, -1.06)+ 5 years	WMD = -0.59 (-2.34, 1.16) 12 months
Quality of evidence		Moderate	Very low
Number of studies/participants		(K = 1; n=41)	(K = 1; n=78)
Forest plot		Psych 12.01	Psych 12.01
Clinician-rated effect size at follow-up 2			WMD = -0.27 (-2.39, 1.85) 24 months
Quality of evidence			Very low
Number of studies/participants			(K = 1; n=78)
Forest plot			Psych 12.01

+ based on skewed data

5.6.9 Effect of treatment on social functioning

Measures of social functioning were reported in 2 studies, although neither reported measures which could be combined in meta-analyses. One study of DBT showed some effect of treatment on both work and employment performance although this did not persist at follow-up. See Table 35.

Table 35 Summary evidence table for social functioning

Outcome	Social	Social	Social	SFQ

	Adjustment Scale - work performance	Adjustment Scale - anxious rumination	Adjustment Scale - employment performance	
Continuous data effect sizes	SMD = -0.33 (-0.9, 0.24)	SMD = -0.71 (-1.56, 0.14)	SMD = -0.8 (-1.4, -0.2)	SMD = 0 (-0.39, 0.39)
Quality of evidence	Moderate	Very low	Moderate	Moderate
Number of studies/participants	(K = 1; n=14)	(K = 1; n=13)	(K = 1; n=10)	(K = 1; n=99)
Forest plot	Psych 13.01	Psych 13.01	Psych 13.01	Psych 13.01
Continuous data at follow-up (24 months)	SMD = -0.44 (-1.18, 0.3)	SMD = -0.44 (-1.42, 0.54)	SMD = -1.04 (-1.73, -0.35)	SMD = 0.14 (-0.26, 0.53)
Quality of evidence	Very low	Very low	Moderate	Moderate
Number of studies/participants	(K = 1; n=14)	(K = 1; n=13)	(K = 1; n=8)	(K = 1; n=101)
Forest plot	Psych 13.01	Psych 13.01	Psych 13.01	Psych 13.01

5.6.10 Effect of treatment on general functioning

Measures of general functioning were reported in 2 studies. One study of STEPPS showed some effect of treatment on outcome. See Table 36.

Table 36 Summary evidence table for general functioning

Outcome	GAF	GAS
Continuous data effect sizes	SMD = -0.17 (-0.67, 0.32)	SMD = -0.55 (-0.91, -0.19)
Quality of evidence	Very low	Moderate
Number of studies/participants	(K = 1; n=64)	(K = 1; n=123)
Forest plot	Psych 14.01	Psych 14.01
Continuous data at follow-up (24 months)	SMD = -0.74 (-1.38, -0.1) 5 years	
Quality of evidence	Moderate	
Number of studies/participants	(K = 1; n=41)	
Forest plot	Psych 01.15	

5.6.11 Effect of treatment on employment-related outcomes

Measures of general functioning were reported in 1 study. This showed that at 5-year follow-up those who had received treatment (MBT with partial hospitalisation) had been in employment for an average of 2 years more than those who received usual treatment. See Table 37.

Table 37 Summary evidence table for employment-related outcomes

Outcome	No years employment
Continuous data effect sizes	WMD = -2 (-3.29, -0.71) +(5 year follow-up)
Quality of evidence	Moderate

Number of studies/participants	(K = 1; n=41)
Forest plot	Psych 14.01

+ based on skewed data

5.6.12 Effect of treatment on quality of life outcomes

Measures of quality of life were reported in 2 studies. There was no effect on outcome of either treatment compared with treatment as usual, or when 2 treatments were compared head-to-head (schema-focused CT vs transference focused psychotherapy**).** See Table 38.

Table 38 Summary evidence table for quality of life

Outcome	**EuroQOL**	**WHO QOL total score (schema-focused CT vs transference focused psychotherapy)**
Continuous data effect sizes	SMD = 0.29 (-0.11, 0.68)+	SMD = 0 (-0.42, 0.42)
Quality of evidence	Very low	Moderate
Number of studies/participants	(K = 1; n=99)	(K = 1; n=86)
Forest plot	Psych 16.01	Psych 16.01
Continuous data effect sizes at follow-up	SMD = -0.23 (-0.62, 0.16)+ 24 months	SMD = -2.01 (-2.53, -1.49) 32 months
Quality of evidence	Very low	Moderate
Number of studies/participants	(K = 1; n=101)	(K = 1; n=86)
Forest plot	Psych 16.01	Psych 16.01

+ based on skewed data

5.6.13 The acceptability of treatment

The acceptability of treatment was measured using the number of participants leaving treatment early for any reason which was extractable from 8 studies. The data were inconclusive, but there appeared to be no difference between treatment and treatment as usual. See Table 39.

Table 39 Summary evidence table for the acceptability of treatment

Outcome	**Leaving treatment early for any reason**
Continuous data effect sizes	RR (random effects) = 0.86 (0.57, 1.3) (32% vs 33%)
Quality of evidence	Very low
Number of studies/participants	(K = 8; n=651)
Forest plot	Psych 17.01

5.7 Combination therapy

5.7.1 Studies reviewed

The aim of combining pharmacological treatment with a psychological therapy is to control symptoms whilst providing a strategy for improved long-term outcomes and to improve retention in pharmacological treatment. Four RCTs were found from searches of electronic databases, none of which were excluded – see Table 40. Three studies compared the antidepressant fluoxetine in combination with a psychological therapy (interpersonal therapy (IPT), cognitive therapy (CT) or dialectical behavioural therapy (DBT)) and one compared the antipsychotic olanzapine in combination with DBT.

Table 40 Summary study characteristics of RCTs of combination pharmacological-psychological therapy

	Fluoxetine + IPT vs fluoxetine	*Fluoxetine + IPT vs fluoxetine vs CT*	*Fluoxetine + DBT vs placebo + DBT*	*Olanzapine + DBT versus placebo + DBT*
No. trials (Total participants)	1 RCT (39)	1 RCT (35)	1 RCT (90)	1 RCT (60)
Study IDs	BELLINO2006	BELLINO2007	SIMPSON2004	SOLER2005
N/% female	39/62	35/73	90/76	60/87
Mean age (or range if not given)	26	30	25	27
Axis I/II disorders	100% MDD	100% MDD	60% MDD; 44% PTSD	Not given, but some depression and anxiety present at baseline*
Setting	Outpatients	Outpatients	Partial hospitalisation	Outpatients
Length of treatment	6 months	6 months	12 weeks	12 weeks
Length of follow-up	None	None	None	None
Notes				Allowed to continue existing medication (BZDs, antidepressants, mood stabilisers) – up to 80% did so

* based on mean Hamilton Depression Rating Scale and Hamilton Anxiety Rating Scale scores at baseline

5.7.2 Fluoxetine plus IPT versus fluoxetine

Bellino2006 – this is a 24-week trial comparing fluoxetine with combination fluoxetine plus IPT in 39 outpatients (62% women). All patients had comorbid major depressive disorder, and baseline HRSD scores indicate moderate depression at the start of the study. The fluoxetine group received clinical

management, although no description of what this involved is included. The number leaving the study early and the number completing the trial do not tally (have contacted authors but no response). The authors concluded that combination therapy was more effective.

The study authors reported outcomes for anxiety, depression and quality of life. For quality of life, the sub-scales of the SAT-P were reported separately since a significant result was found on only two of the sub-scales, psychological and social functioning. Combination treatment was more effective in reducing depression symptoms (clinician-rated only), and psychological and social functioning aspects of the quality of life measure used (self-rated). See Table 41 for the summary evidence profile. Despite this limited dataset it is likely that quality of life improves for service users as specific symptoms, such as depression, aggression and anxiety improve.

Table 41 Summary evidence profile for efficacy evidence for fluoxetine + IPT versus fluoxetine

Outcome	Anxiety (clinician-rated)	Depression (clinician-rated)	Depression (self-rated)	QOL: Physical	Psychological	Sleep, food, free time	Social functioning	Work
Effect size	SMD = 0.2 (-0.49, 0.9)	SMD = -0.9 (-1.63, -0.16)	SMD = 0.45 (-0.23, 1.13)	SMD = 0.22 (-0.47, 0.92)	SMD = -0.87 (-1.59, -0.14)	SMD = 0.44 (-0.26, 1.14)	SMD = -1.4 (-2.18, -0.61)	SMD = -0.06 (-0.76, 0.63)*
Evidence quality	Very low	Moderate	Very low	Very low	Moderate	Very low	Moderate	Very low
No. studies/No. of participants	(K = 1; n=32)	(K = 1; n=32)	(K = 1; n=34)	(K = 1; n=32)	(K = 1; n=32)	(K = 1; n=32)	(K = 1; n=32)	(K = 1; n=32)
Forest plot	Combo 01.01	Combo 04.02	Combo 04.01	Combo 06.01	Combo 06.01	Combo 06.01	Combo 06.01	Combo 06.01

* based on skewed data

Table 42 Summary evidence profile for acceptability/tolerability evidence for fluoxetine + IPT

Outcome	Leaving treatment early for any reason	Leaving treatment early due to side effects	Number reporting side effects
Effect size	RD = 0.04 (-0.2, 0.28) 20% vs 16%	RD = 0 (-0.09, 0.09) 0% vs 0%	RD = 0 (-0.09, 0.09) 0% vs 0%
Evidence quality	Very low	Very low	Very low
No. studies/No. of participants	(K = 1; n=39)	(K = 1; n=39)	(K = 1; n=39)
Forest plot	Pharm 09.01	Pharm 10.01	Pharm 10.01

5.7.3 Fluoxetine plus IPT versus fluoxetine plus CT

Bellino2007 – this is a 24-week trial comparing fluoxetine plus IPT with fluoxetine plus CT in 35 outpatients (73% women). All patients had comorbid major depressive disorder, and baseline HRSD scores indicate moderate to severe depression at the start of the study.

The study authors reported outcomes for anxiety, depression and quality of life. There was evidence that fluoxetine plus cognitive therapy improved social functioning compared with fluoxetine plus IPT. All other outcomes were inconclusive, probably because of the low numbers of participants in the study.

Table 43 Summary evidence profile for efficacy evidence for fluoxetine + IPT versus fluoxetine + CT

Outcome	Anxiety (clinician-rated)	Depression (clinician-rated)	Depression (self-rated)	QOL: Physical	Psychological	Sleep, food, free time	Social functioning	Work
Effect size	SMD = 0.27 (-0.5, 1.05)	SMD = 0.07 (-0.7, 0.84)	SMD = 0.27 (-0.5, 1.05)	SMD = -0.45 (-1.23, 0.34)	SMD = -0.5 (-1.28, 0.29)	SMD = -0.02 (-0.79, 0.75)	SMD = 1.06 (0.22, 1.89)	SMD = 0.75 (-0.05, 1.55)
Evidence quality	Very low	Very low	Very low	Very low	Very low	Very low	Moderate	Very low
No. studies/No. of participants	(K = 1; n=26)	(K = 1; n=26)	(K = 1; n=26)	(K = 1; n=26)	(K = 1; n=26)	(K = 1; n=26)	(K = 1; n=26)	(K = 1; n=26)
Forest plot	Combo 03.01	Combo 04.02	Combo 04.01	Combo 06.01	Combo 06.01	Combo 06.01	Combo 06.01	Combo 06.01

* based on skewed data

Table 44 Summary evidence profile for acceptability/tolerability evidence for fluoxetine + IPT vs fluoxetine + CT

Outcome	Leaving treatment early for any reason
Effect size	RD = -0.13 (-0.39, 0.14) 13% vs 25%
Evidence quality	Very low
No. studies/No. of participants	(K = 1; n=32)
Forest plot	Pharm 09.01

5.7.4 Fluoxetine plus DBT versus placebo plus DBT

Simpson2004 – this is a 12-week placebo-controlled trial of fluoxetine in 25 women who had a comorbid axis I disorder (major depressive disorder (60%) and/or PTSD (44%)). All patients were in a day hospital (partial hospitalisation) and received DBT. It is unclear how data from participants not completing the trial were dealt with.

The trial reported outcomes for aggression, anger, anxiety, depression, global functioning, self-injury and suicidality. There was no evidence for efficacy of either arm of the trial on any outcome measure.

Table 45 Summary evidence profile for fluoxetine + DBT vs placebo + DBT

Outcome	Anger (clinician-rated)	Aggression (clinician-rated)	Anxiety (clinician-rated)	Depression (self-rated)	Global functioning	Self-injury subscale of OAS	Suicidality subscale of OAS

Effect size	SMD = -0.55 (-1.45, 0.35)*	SMD = -0.59 (-1.5, 0.31)*	SMD = 0.15 (-0.73, 1.03)	SMD = 0.76 (-0.16, 1.68)*	SMD = 0.06 (-0.82, 0.94)	SMD = 0.03 (-0.85, 0.92)*	SMD = 0.44 (-0.46, 1.33)*
Evidence quality	Very low	Very low	Very low	Very low	Very low	Very low	Very low
No. studies/No. of participants	(K = 1; n=20)	(K = 1; n=20)	(K = 1; n=20)	(K = 1; n=20)	(K = 1; n=20)	(K = 1; n=20)	(K = 1; n=20)
Forest plot	Combo 02.01	Combo 01.01	Combo 03.01	Combo 04.01	Combo 04.02	Combo 07.01	Combo.07.01

* based on skewed data

Table 46 Summary evidence profile for acceptability/tolerability evidence for fluoxetine + DBT

Outcome	Leaving treatment early for an y reason	Leaving treatment early due to side effects	Number reporting side effects
Effect size	RD = 0.1 (-0.22, 0.41)	RD = 0 (-0.14, 0.14)	RD = 0 (-0.14, 0.14)
	25% vs 15%	0% vs 0%	0% vs 0%
Evidence quality	Very low	Very low	Very low
No. studies/No. of participants **Forest plot**	(K = 1; n=25) Combo 09.01	(K = 1; n=25) Combo 10.01	(K = 1; n=25) Combo 11.01

5.7.5 Olanzapine plus DBT

Soler1989 – this is a 12-week trial comparing olanzapine plus DBT with placebo plus DBT. There were 60 participants (87% women) all with borderline personality disorder. The DBT offered was delivered in weekly 150-minute group sessions, and was adapted from the 'standard version' (not referenced) 'two of the four types of intervention were applied: skills training and telephone calls'. The precise setting of the trial is unclear. Those with an unstable axis I disorder were excluded from the trial at baseline. There were pre-treatment differences between the groups on anxiety scores, so baseline anxiety scores were used as a covariate in an ANCOVA analysis which found a significant decrease in anxiety in those taking olanzapine. These participants also decreased frequency of impulsivity/aggressive behaviours compare with those taking placebo. However, they also experienced more weight gain and increased cholesterol levels. It is unclear how many were included in the ITT sample and clarification was sought from the study authors, but not received. Baseline levels of depression and anxiety were high.

The trial reported outcomes for anxiety and depression, self-harm/suicide attempts and service use (number of visits to emergency psychiatric services). See

Table 47. There was no evidence for efficacy of either arm of the trial on any outcome measure.

Table 47 Summary evidence profile for olanzapine + DBT vs placebo + DBT

Outcome	Anxiety	Depression (clinician-rated)	Self-harm/suicide attempts	Service use
Effect size	SMD = -0.23 (-0.74, 0.28)	SMD = -0.35 (-0.86, 0.16)	SMD = 0.15 (-0.36, 0.65)	SMD = 0.04 (-0.08, 0.16)
Evidence quality	Very low	Very low	Very low	Moderate
No. studies/No. of participants	(K = 1; n=60)	(K = 1; n=60)	(K = 1; n=60)	(K = 1; n=60)
Forest plot	Combo 03.01	Combo 04.02	Combo 07.01	Combo 08.01

Table 48 Summary evidence profile for acceptability/tolerability evidence for olanzapine + DBT vs placebo + DBT

Outcome	Number reporting side effects	Weight gain
Effect size	RD = 0 (-0.06, 0.06) 0% vs 0%	WMD = 2.79 (1.36, 4.22)
Evidence quality	Very low	Moderate
No. studies/No. of participants	(K = 1; n=60)	(K = 1; n=60)
Forest plot	Combo 11.02	Combo 12.01

5.7.6 Clinical summary

There are few studies comparing the effects of adding a drug to a psychological therapy on symptoms of borderline personality disorder. Consequently the evidence for an effect is weak. There was no evidence of an effect on symptoms of adding fluoxetine or olanzapine to DBT. However, adding IPT to fluoxetine showed some efficacy (compared with fluoxetine alone) in reducing depression symptoms (clinician-rated measure only), and psychological and social functioning aspects of the quality of life measure used (self-rated measures). However, the number of patients in this latter trial is very low (n=25) and therefore further research is needed to replicate this finding. In the trial comparing IPT with cognitive therapy, the effect of treatment on outcomes was inconclusive, other than for social functioning where cognitive therapy improved scores more than IPT. This trial is also very small.

The evidence does not support any recommendations specifically about the combined use of psychotropic medication and a psychological therapy in the treatment of borderline personality disorder.

5.8 Overall clinical summary

The overall evidence base for psychological therapies in the treatment of borderline personality disorder is relatively poor. There are few studies; low numbers of patients and therefore low power; multiple outcomes with few in common between studies; and a heterogenous diagnostic system which makes it hard to target specific treatment on patients with specific sets of symptoms because the trials may be too 'all inclusive'. This means that the state of knowledge about the current treatments available is in a development phase rather than one of consolidation. Therefore, conclusions need to be provisional and may alter in the light of more and better-designed studies. Overall, the current evidence base is weak; more and better-designed studies need to be undertaken before strong recommendations can be made.

There is some evidence that complex therapies (i.e., those which provide treatment in more than one modality), specifically DBT and MBT with partial hospitalisation, are effective in reducing suicide attempts and self-harm, anger, aggression and depression. MBT with partial hospitalisation also reduced anxiety and overall borderline personality disorder symptomatology, and improved employment and general functioning. DBT is effective in reducing self-harm in women, and therefore should be considered if reducing self-harm is a priority. Otherwise, if a psychological therapy is being considered, it should be delivered in the formats which the evidence suggests they are effective. That is, it should provide therapy it at least 2 modalities, be well structured and have a coherent theoretical basis. In addition, therapists should be provided with adequate supervision.

There is no convincing evidence that the individual psychological therapies are efficacious, although the non-RCT evidence gives some encouragement to the search for less complex interventions. More well-designed RCTs are needed, which test whether a complex intervention which incorporates an individual psychological therapy is effective. Brief interventions (less than 3 months) do not appear to be effective in the treatment of borderline personality disorder.

Research results are typically reported in terms of comparison of group means before and after treatment. Whilst this gives an indication of the overall treatment effect, it can mask deterioration in a minority of patients. The possibility that some individuals suffer adverse effects of psychological interventions remains. Research trials should report deterioration rates in active treatment and control groups, and clinical services should monitor individual patients' response to treatment.

Referral for psychological treatment should take into account service user preference and where practicable offer a choice of approach.

5.9 Therapeutic Communities

5.9.1 Introduction

A therapeutic community is a planned environment which exploits the therapeutic value of social and group processes. It promotes equitable and democratic group-living in a varied, permissive but safe environment. Interpersonal and emotional issues are openly discussed and members can form close relationships). Mutual feedback helps members confront their problems and develop an awareness of interpersonal actions (Haigh & Worrall, 2002). Their various structures have been systematised through a standards-based quality network, called 'Community of Communities' (Haigh & Tucker, 2004).

Early forerunners of therapeutic communities, such as village communities like Geel in Flanders, existed at least as long ago as the thirteen century. Therapeutic communities for the treatment of adult personality disorder first emerged in a recognisable form in England during the Second World War, at Northfield Military Hospital in Birmingham and Mill Hill in London. The leaders of the Northfield "experiments" were psychoanalysts who were later involved in treatment programmes at the Tavistock Clinic and the Cassel Hospital, and had considerable international influence on psychoanalysis and group therapy. The Mill Hill programme, for battle-shocked soldiers, later led to the founding of Henderson Hospital and a worldwide 'social psychiatry' movement, which led to less custodial treatment within all UK mental hospitals and many elsewhere.

Different forms of therapeutic community have evolved from these origins, one clear strand of which is for specific treatment of those with personality disorders. Others include residential long term treatment of addictions and self-harm, rehabilitation and offending behaviour programmes for offenders in prison, social therapy housing for those with long term psychotic conditions, and therapeutic schools for children with extreme emotional and conduct disorders. The form of therapeutic community described here is the democratic type first introduced by Maxwell Jones 50 years ago; the correction-based (formerly called concept-based) therapeutic community in the United States is for incarcerated substance abusing offenders and is hierarchically based. Although the two traditions appear very different there are also many similarities.

The therapeutic communities for personality disorder range from full-time residential hospitals to units that operate largely by the internet with occasional physical meetings. Between these extremes, communities exist that are weekly residential, full-time day units (five days per week), and between one and four days per week. Most operate a rolling programme of one to two years duration, and they are generally seen in four clusters of 'dose intensity':

- residential (supplying the research evidence discussed below)

- three or more days per week (Haigh, 2007),
- less than three days per week (Pearce & Haigh, submitted for publication)
- substantially by internet communication (Ashman & Reilly, 2008)

Individuals referred are often those who have not responded well to general psychiatric management or specific therapies, and for whom admission to a therapeutic community is the last treatment option. The ultimate aim of therapeutic community treatment is to rehabilitate individuals with levels of social adjustment necessary to function in the wider community.

Although the community itself is seen as the primary therapeutic agent, programmes include a range of different specific therapies, usually held entirely in groups. These can include small analytic groups, median analytic groups, psychodrama, transactional analysis, art therapy, creative arts therapies, cognitive therapy, social problem-solving, psychoeducation and gestalt. In addition to specific therapies, there are always community meetings (which normally have a set agenda), activities such as meal preparation and household maintenance, playful activities such as games, and opportunities y for members or staff to call crisis meetings. Behavioural interventions are often included as part of community meetings, for example by agreeing contracts and consequences for certain behaviours. There is a variable proportion of the programme available for informal time together and extramural activities. Non-residential programmes may also make provision for members to maintain contact with each other out-of-hours, including using telephone calls, texts, or the internet, as well as face-to-face meetings. In these ways, members are supported.

The nature of personality disorders and in particular borderline personality disorder often makes traditional hospital treatment problematic. For example, in traditional hospital settings patients are expected to conform to strict treatment regimes, rules and regulations (Kernberg, 1984), which may be inappropriate for the maladaptive patterns of functioning such as internally or externally directed aggression, lack of trust, unstable personal relationships, low self-esteem and withdrawal from human contact often exhibited by patients with personality disorder. Treatment in therapeutic communities and psychotherapy hospitals may help to address this (Chiesa, 1989). A therapeutic community is a planned environment which exploits the therapeutic value of social and group processes. It promotes equitable and democratic group-living in a varied, permissive but safe environment. Interpersonal and emotional issues are openly discussed and members can form intimate relationships. Mutual feedback helps members confront their problems and develop an awareness of interpersonal actions (Haigh & Worrall, 2002) .

Therapeutic communities are most commonly run using psychodynamic principles, professional staff using both formal therapy sessions and informal contact to help members develop healthy relationships, for example, by using all aspects of day-to-day interactions to understand members' their past experiences to understand behaviour in the present and learn to change problematic behaviour. They generally work with time-limited placements. Within these treatment settings, the acting out behaviour of the patient is valued as an important insight to the nature of the disorder and is actively utilised to assist in treatment as a route to understanding and interpreting the personal historical meaning of these behaviours (Chiesa, 2004).
Patients Individuals referred to therapeutic communities are often those who have not responded well to general psychiatric treatment and for whom admission to a therapeutic community is the last treatment option. The ultimate aim of therapeutic community treatment is to rehabilitate individuals with levels of social adjustment necessary to function in the wider community. There are several types of therapeutic community, several of which are located within the NHS (Henderson Hospital, Cassel Hospital and Francis Dixon Lodge) and often at the tertiary level of provision. Apart from in prison-based therapeutic communities, treatment is voluntary.

Therapeutic communities are run on democratic principles which includes collective decision making and often involves voting procedures. The relationship between staff and community members is structured to minimise formal roles so that there is a 'flattened hierarchy' where all members and staff have equal voting rights and influence all decisions relevant to the community. This means that community members participate in the organisation and management of the community, and staff and residents work collaboratively with decisions being made through democratic voting systems in the community meetings. Often In many therapeutic communities for personality disorder medication is prohibited, and instead patients are given the opportunityto discuss the feelings about relationships underlying their actions, in an open and non-judgemental environment. It is well recognized that people with borderline personality disorder react adversely to separations from established relationships (Jeffery, 1985), and so leaving these therapeutic communities is often difficult for patients, and requires careful management with suitable after-care.

5.10 Studies considered[7]

The review team conducted a systematic of primary research studies assessing the efficacy of residential therapeutic community treatment for people with a personality disorder diagnosis. To be included, studies had to provide quantifiable outcome data and focus on therapeutic communities

[7] Here and elsewhere in the guideline, each study considered for review is referred to by a study ID in capital letters (which denotes the primary author and date of study publication, except where a study is in press or only submitted for publication, in which case a date is not used).

(rather than inpatient wards based on therapeutic community principles, or types of residential programme that do not conform to the principles described above) either in the UK, or in countries with similar healthcare systems. Evidence for therapeutic communities where residents stay long-term were considered alongside evidence for other highly structured therapy programmes such as partial hospitalisation, and intensive psychotherapy.

Nineteen papers met eligibility for further investigation, providing data on 2,780 participants and published in peer-reviewed journals between 1989 and 2007. An additional 9 studies were excluded. See appendix 16 for details of excluded studies with reasons for exclusion.

Studies of therapeutic communities in the UK (Henderson Hospital, Cassell, and Francis Dixon Lodge), in Australia and in Finland were found.

5.10.1 UK-based residential therapeutic communities

Although the Henderson Hospital is likely to have closed by the publication of this guide, and the Cassel Hospital to have developed substantially different programmes, they have both been important in undertaking relevant research. Many other therapeutic communities for borderline personality disorder have used and developed their treatment approaches, including those which use modified non-residential and less intensive programmes.

Henderson Hospital

The first therapeutic community established in the UK was the Henderson Hospital founded in 1947 to treat psychological casualties from the Second World War with the aim of rehabilitation. In its role in treating people with emotional, interpersonal and behavioural difficulties the Henderson offered inpatient treatment for up to a year for adults up to the age of 60. Residents may also have a past history of drug and/or alcohol misuse, eating disorders, mood disorders and other psychiatric problems. Specific exclusion criteria for admission to the hospital were psychological dependence on medication, active dependence on illicit drugs or alcohol; learning disability; and current active continuous psychosis.

Four prospective cohort studies were found which examined treatment effectiveness at the Henderson.

Table 49 Primary research studies of the Henderson hospital

	N	*Study design*	*Participants*	*Control group*	*Diagnosis*
COPAS1984	198	Cohort study	All referrals	Non-admitted patients	Unclear
DOLAN1992	95	Cohort study	All referrals (admitted only)	No control	Range of PD – majority borderline personality disorder
DOLAN1997	137	Cohort study	All referrals	Non-admitted patients	Range of PD – majority borderline personality disorder
WARREN2004 and 2006	135	Cohort study	All referrals	Non-admitted patients	All PD; 84% borderline personality disorder + eating disturbances (unclear if met diagnosis for an eating disorder)

Copas *et al*. (1984) describe a 3 to 5-year follow up of a sample of patients referred to the Henderson between September 1969 and February 1971: 194 admitted and 51 not admitted (for failing to attend at interview, rejection as unsuitable, failure to attend for admission or another course intervening such as imprisonment or admission elsewhere). The cohort was originally reported on in an earlier paper (O'Brien et al, 1976). The diagnoses of the participants are unclear: 'psychological typology of personality disorder was devised and tested against the observed patterns of previous social maladjustment' so it is difficult to judge whether the findings of this study are relevant to people with borderline personality disorder. The study was not considered further for this reason.

Dolan *et al.* (1992) investigated change in neurotic symptomatology in a sample of 95 patients admitted to the Henderson between 1985 and 1988 (age range 17 to 44, mean 25 years). Although the characteristics of the study sample studied are not given, a description of residents found that 87% met DSM-IIIR criteria for borderline personality disorder Dolan, 1991). Patients were required to complete baseline SCL-90 measures prior to treatment and again at 6 months post-discharge. 65% of the sample completed outcome measures. Results demonstrated a significant reduction in global severity index scores, indicating improvement in levels of distress caused by associated symptoms for borderline personality disorder. Again there was a tendency for greater levels of improvement among those remaining in treatment for the longest period of time (more than 9 months), but this result was not statistically significant.

Dolan *et al*. (1997) examined changes in core personality disorder features one year post-treatment. They compared a group of patients admitted to the Henderson between September 1990 and November 1994(n = 70) with a group who were not admitted (n = 69) around 80% met criteria for DSM-IIIR borderline personality disorder, although on average participants met criteria for 7 personality disorder categories. Significant differences in Borderline Severity Index scores were found for those admitted to the therapeutic community compared with those not admitted. For example, 42% of the admitted group achieved clinically significant change at one year follow-up

compared with only 22% of those not admitted. Furthermore, there was a significant correlation between the length of time residents stayed in the therapeutic community and change in BSI scores. It should be noted however that between-group differences may be because the groups differed at baseline because of selection methods or because of differing follow-up periods: those admitted to the Henderson were followed-up one year post-*treatment* whereas those not admitted were followed-up one year after *referral*.

Warren et al (2004) followed 135 patients referred to the Henderson between September 1990 and December 1994, 74 of whom were admitted. They measured impulsivity on a range of items (including self-harm, binge eating and fighting) one year after discharge (one year after assessment for the non-admitted group) using a self-report measure (Multi-Impulsivity Scale). They reported statistically significant differences between the admitted and non-admitted groups showing a reduction in the action of hitting others, and the impulses to set fires and to take overdoses. However, we calculated effect sizes and found a statistically significant effect size for only the action of hitting others favouring the admitted group (SMD = -0.53, 95% CI -0.88, -0.19). Since there were more women and more patients with a diagnosis of schizoid personality disorder in the admitted group than the non-admitted group these factors were explored as potential confounders but not found to affect the results. Eating disturbances were also reported (Warren et al, 2006) showing a reduction in dieting but not on other aspects of eating disturbance (eg bulimia) in those admitted compared with those not admitted.

Study	Outcomes	Findings	Notes
Copas et al, 1984	Further convictions or Psychiatric admissions	Either outcome: Admitted vs non-admitted: 36% vs 19%	Diagnoses unclear
DOLAN1992	GSI	SMD = 0.88, 95% CI 0.51, 1.25	Effect size calculated from pre-post data
DOLAN1997	BSI	SMD = -0.81, 95% CI -1.16, -0.47	
WARREN2004	EAT-26 scores	SMD = 0.18, 95% CI -0.16, 0.52	
WARREN2004	MIS hitting others -- action	SMD = -0.53, 95% CI -0.88, -0.19	
	Firesetting - impulse	SMD = -0.33, 95% CI -0.67, 0.01	
	Overdosing - impulse	SMD = -0.25, 95% CI -0.59, 0.1	

Cassel Hospital

The Cassel Hospital is also a tertiary referral facility offering therapeutic community type treatment for individuals with personality disorder from different regions of the UK. The Cassel differs from the Henderson as its programme also involves formal twice weekly individual psychoanalytically-

oriented therapy on a twice-weekly basis, and sociotherapy within the therapeutic community and few features of the 'flattened hierarchy', such as voting on decisions such as membership of the community., Additionally, limited use of psychotropic medication is permitted. For these reasons, it may not be considered a typical therapeutic community. and so may not be considered a typical therapeutic community. However, the Cassel programme for personality disorders does include sociotherapy within the hospital environment, and like the Henderson, patients at the Cassel are actively encouraged to share take co-responsibility for their own treatment and to participate in the running of the social functioning of the hospital. An In both hospitals, an important aspect of treatment is to explore, through confrontations in the 'here-and-now', patients' behaviour and any potential conflicts and difficulties. This provides opportunities for individuals to develop considerable insight into their own problems and to resolve recurrent difficulties. Additionally, use of psychotropic medication is permitted at the Cassel.

Traditionally the Cassel offered a 'one stage' (OSG) long-term programme in which individuals were admitted for 11-16 months, but post-discharge patients were expected to seek further treatment and additional support independently. However in 1993, a 'two stage programme' (TSG) was devised in response to the need to reduce inpatient stay and to support patients in the transition period of leaving the intensive programme. Thus, the initial stage of inpatient treatment was reduced to 6 months, followed by a second component of treatment which comprised 12-18 months of outpatient group psychotherapy plus 6 months of concurrent community outreach nursing. Patients referred from outside Greater London were admitted to the one-stage programme and those from inside Greater London to the two-stage programme.

	N	*Study design*	*Participants*	*Control group*	*Diagnosis*
Chiesa & Fonagy (2000)*	90	Prospective cohort study	Add admitted patients	One-stage vs two-stage (see below)	Axis II disorders (70% borderline personality disorder)
Chiesa & Fonagy (2004)*	73	Prospective cohort study	Add admitted patients	One-stage vs two-stage (see below)	Axis II disorders (70% borderline personality disorder)
Chiesa & Fonagy (2007)	73	Prospective cohort study	Add admitted patients	One-stage vs two-stage (see below)	Axis II disorders (70% borderline personality disorder)

* a 6-year follow-up study has also been published (Chiesa et al, 2006)

Chiesa and Fonagy (2000) conducted a 5-year prospective cohort study comparing the two different treatment programmes offered by the Cassel. 45 participants formed the 'one-stage' group and 44 were in the 'two-stage' group. Recruitment took place between January 1993 and July 1997. Inclusion criteria for the study were being between 18 and 55 years old, good command of English and IQ above 90, and a diagnosis of an Axis II disorder according

to DSM-IIIR criteria. Exclusion criteria included a previous diagnosis of schizophrenia or delusional (paranoid) disorder, previous continuation stay in hospital for more than 2 years, evidence of organic brain damage, and involvement in criminal proceedings for violent crime. Seventy per cent of the sample had borderline personality disorder. For borderline personality disorder patients in the two-stage group, statistically significantly higher rates of improvement (as indicated by higher global assessment scores [GAS] (SMD = 0.64; 95% CI 0.21, 1.06 favouring the two-step group) and SAS (social adjustment score) at 12 months were found (SMD = 0.55; 95% CI 0.13, 0.97, favouring the two-step group). This may reflect long-term benefits of a short-term inpatient stay followed by [?a good level of] post-discharge support.

In a further study, Chiesa *et al.* (2004) examined the treatment effectiveness of the two treatment programmes – plus a general community sample – over 24 months. Treatment in the general community sample reflected that offered in non-specialist treatment services in the UK: participants in this group received standard psychiatric care including psychotropic medication (i.e. 'treatment as usual'; TAU). Results indicated that those in the TSG experienced better outcomes than did the OSG or the TAU group. For example, at 24-month follow up a statistically significantly greater proportion of patient in the TSG scored below the cut-off point for borderline personality disorder symptom severity. Furthermore, a greater proportion of this group achieved clinically significant increases in global assessment scores compared with the other two groups. A 50% reduction in the number of self-mutilating acts was observed for those in the TSG, compared with only 8% and no change in the TAU and OSG respectively. Most importantly however, patients rehabilitated into the community were four times less likely to be readmitted to psychiatric services in the year after discharge compared with the other two groups.

A six-year follow-up study showed that the TSG group maintained and clinically improved on several measures, whereas these effects were not apparent for the TAU or OSG (Chiesa et al, 2006). In particular, levels of symptom severity were most decreased in the staged programme, with 62% of patients below the clinical cut-off point at six-year follow-up compared with only 26% in the OSG and 13% in the TAU group. Patients treated in the TSG group were less likely to utilize NHS resources at six-year follow-up, as indicated by the marked reduction in the number of committed acts of parasuicide and self-mutilation, plus a decrease in the number of suicide attempts and lower rates of readmission to psychiatric units compared with the OSG and TAU groups.

A further study of 73 patients admitted to the Cassell specifically examined predictive factors of positive outcome (Chiesa & Fonagy, 2007). This found that, at 2-year follow-up, younger age, high general functioning at admission, longer length of treatment, absence of self-harm and avoidant personality

disorders significantly predicted outcomes amongst participants with diagnoses of Cluster B personality disorders.

Francis Dixon Lodge

Francis Dixon Lodge (FDL) is based in Leicestershire and at the time of the studies described below had fifteen beds, which were closed when it converted to a day unit in 2007. It took 20% of its referrals from intake as extra-contractual referrals (ECRs), mainly from its own geographical region (the Trent) region but some from as far away as South Wales. At the time of the research described, rResidents stayed at the lodge unit from Monday to Friday but returned at the weekend to their private lodgings. FDL offers similar treatment to the Henderson in that therapy takes place exclusively in group settings. Treatment comprises twice-daily community meetings, twice-weekly small group psychotherapy sessions, a once-weekly art therapy group and a once-weekly care-planning group. Residents also participate in additional recreational activities, housekeeping tasks and involvement in assessment of referrals.

FDL also offers a 'Next Steps' service for patients discharged from the service whereby patients they are prepared for departure from the therapeutic community, in a specific 'leavers group' for six weeks before discharge and this support is maintained until six months post-after discharge. It also offers ex-residents ongoing continuing crisis support in the form of an ex-residents drop-in group which meets weekly for those in crisis.

	N	*Study design*	*Participants*	*Control group*	*Diagnosis*
DAVIES1999	52	Cohort study	All referrals	None (although some data given comparing local patients with others)	Emotionally unstable personality disorder (87%)

Davies *et al.* (1999) examined 52 patients admitted to FDL, of which 40 patients were referrals from Leicestershire and the remaining 12 were ECRs. Comparison of the two samples showed the ECR patients had greater service usage costs, as reflected by greater inpatient stays in general psychiatry wards, in the three years preceding treatment at FDL than Leicestershire patients. No other data were reported.

A follow-up study over a period of three years of the same sample (Davies *et al.*, 2003) demonstrated a significant reduction in the number of in-patient admission one year post-treatment; moreover, these effects were maintained at 3-year follow-up. Evidence also suggests that those who terminated treatment early (under 42 days) had the poorest outcomes in terms of suicide and accidental death. The number of days hospitalised in the 3 years prior to admission was compared with the number of days hospitalised post-

admission showing advantage post-admission (WMD = 46.30; 95% CIs 7.75, 84.85). However, the confidence intervals are wide (between 8 and 85 days) making it hard to draw firm conclusions from these data.

5.10.2 UK-based non-residential therapeutic communities

No outcome studies examining the efficacy of therapeutic community treatment in the modified programmes, as mentioned above, have yet been published. This includes day units which function as partial hospitalisation programmes, 'mini' therapeutic communities which function on less than two days per week, and 'virtual' therapeutic communities which function predominantly through the internet.

5.10.3 Non-UK-based therapeutic communities

Outside of the UK, the term therapeutic community most commonly refers to residential treatment units for addictions, which frequently operate similar programmes to the UK-based therapeutic communities described above. 'Dual diagnosis' and co-morbidity are increasingly recognised, and shared features of history, theory and practice have been described (Haigh & Lees, 2008). Those which treat patients with borderline personality disorder, with relevant research publications, are in Australia and Finland.

Several studies examining the efficacy of therapeutic community treatment have been conducted in Australia and Finland. Two prospective cohort studies conducted in Australia claimed support for therapeutic community treatment. Hafner and Holme (1996) investigated a therapeutic community ward run on democratic principles in a psychiatric hospital. The therapeutic community runs from Monday to Friday, and is closed at the weekend, during which residents are expected to maintain their own outside accommodation. No psychotropic medication or alcohol is permitted. The maximum stay is 6 months and residents must form links with the wider community through activities such as leisure or educational courses, sports or voluntary work. 48 residents completed measures at three time points: at baseline, within 2 weeks of discharge and at 3 months post-discharge. 29 residents completed the final questionnaire. Results demonstrated a significant reduction in global severity index scores, indicating improvement in levels of distress caused by associated symptoms for borderline personality disorder for those completing post-discharge questionnaires. The three treatment components reported by patients to be most helpful were therapy groups (72%), living closely with others (56%), and community meetings (54%). The four components found to be most unhelpful were mandatory weekend leave (14%), assessment procedures (12%), rules (10%), and client outings (10%).

A more recent Australian study (Hulbert & Thomas, 2007) investigated effects of a new public sector treatment called Spectrum Group Treatment. This comprises adapted dialectical behavioural therapy (DBT) skills training,

experiential sessions to facilitate modelling, and coaching of appropriate behaviour, together with peer support. Residents were followed up at three time points: pre-treatment, post-treatment and one year post-discharge. Results showed a statistically significant reduction in the number of borderline personality disorder diagnosis made at discharge and 1 year post treatment. Furthermore, patients reported significantly lower levels of depression, anxiety, hopelessness and dissociation at the end of treatment, and these effects were maintained at 1-year follow-up. There was also a reduction in the number of self-harm acts, but this was not a statistically significant improvement.

A prospective cohort study conducted in Finland by Vaglum *et al.* (1990) investigated the efficacy of a therapeutic community day ward for three different groups of patient: those with severe personality disorder (including borderline personality disorder, SPD, and mixed borderline personality disorder and SPD), 'other non-severe' personality disorder, and no personality disorder. Treatment on the day ward included daily community meetings, group therapy plus individual psychotherapy for 1-2 hours weekly. Psychotropic medication was also permitted. Results indicated that there were no significant differences in length of stay between groups, but a positive correlation was found between length of stay and GSI outcome. Patients with severe personality disorder were more likely to hold negative views about the therapeutic community environment than those without personality disorder. Those with no personality disorder were more likely to benefit from treatment; for example, patients in this group were more likely to be considered a non-psychiatric case at endpoint than the other two groups.

Using the same sample as Vaglum *et al.* (1990) Karterud *et al.* (1992) further investigated whether the day hospital is an adequate treatment for individuals with personality disorder. Measures taken included: suicideal attempt rates; numbers leaving treatment early; number of psychotic breakdowns; level of medication; symptom levels; and psychological functioning. Approximately 60% of patients were on psychotropic medication at the beginning of the trial, but this reduced to 42% by the end of the trial and medication doses were also lower. Treatment was successful in engaging patients, with a mean stay of 171 days. However there was a higher rate of drop- out amongst the borderline personality disorder group compared with the less severe and no personality disorder groups. Karterud *et al.* (1992) concluded that day ward treatment is sufficient for the treatment of individuals with borderline personality disorder as it produces modest improvements in symptom reduction and psychological functioning.

Two Finish cohort studies conducted within a psychiatric hospital aimed to investigate whether modified therapeutic community principles are applicable to the institutional care of acute and sub-acute psychotic and borderline personality disorder patients (Isohanni & Nieminen, 1989, 1990).

Formal treatment ran uns from Monday to Friday and at the weekend, patients were are discharged (but where this was is not possible, patients were are allowed to rest and engage with recreational activities). Treatment included community group meetings in which decisions regarding the running of the community were are made. Every weekday morning, 'problem' meetings occurred whereby patients and staff negotiated treatment plans and how to manage any critical situations. Patients also hadve time throughout the day to engage in individual psychotherapy, treatment planning and extracurricular activities.

Both studies (Isohanni & Nieminen. 1989, 1990) investigated which patient and programme factors were predictive of treatment outcome in relation to psychiatric status of patients. Outcomes were examined 1-2 weeks after departure from the therapeutic community. For the majority of patients, therapeutic community treatment was good (as defined by Isohanni and Nieminen as goals achieved and change noticeable), but for a small proportion (5%) there was an unexpected negative change (i.e. clinical status remained the same as at the beginning of study, or worsened during hospital treatment). Factors associated with negative outcomes were short treatment time (under 18 days), and also, for those taking a passive role in the group, therapeutic community environment and especially individual therapy. Also, a small correlation was observed between negative outcome and involuntary admission (Isohanni & Nieminen, 1989). Furthermore, age - and in particular, being under the age of 21 – was also associated with negative outcome (Isohanni & Nieminen, 1990).

5.10.4 Clinical summary

Although these cohort studies provide some interesting data, there are a number of factors that limit their usefulness in evaluating residential therapeutic community treatment. There are no randomised controlled studies of treatment in therapeutic communities. There would be methodological difficulties with setting up such trials, including ethical problems associated with withholding residential treatment for those most in need, and the related problem of creating adequate control groups.

Caution must therefore be exercised in drawing conclusions from the cohort studies discussed above, as they lack meaningful comparison groups. In several studies all those referred for treatment are included in the study, with those admitted compared with those not admitted. Admission is based on criteria set by the individual therapeutic community. This is likely to mean that those not admitted are dissimilar in some ways to those admitted, thus weakening the use of this group as a control. Secondly, simple comparisons of pre- versus post-treatment changes in outcome for the residential treatment group are problematic because there is a possibility that changes may be due to spontaneous recovery or some systematic bias in the selection of those who enter residential treatment. For example, admittance to the Henderson

Hospital depends partly on availability of funding from the local health authority, and so it is possible that districts with less available funding either have alternative non-residential treatment programmes for those with personality disorders, or have fewer resources for other reasons. This may reduce the generalisability of the available data further. Thirdly, many of the studies examined follow up patients over a relatively short period of time (for example, one year). Fourthly, the necessarily multi-component nature of many the therapeutic community programmes makes it difficult to identify the active components. For example, it is unclear whether admitting an individual into a hospital, the nature of the hospital environment, the therapeutic relationships with staff or other patients, the use of psychotropic medication - or a combination of these factors - contribute to the effectiveness of the treatment. Lastly, the number of residentially based communities is being reduced (for example, during the guideline development process plans were announced to close the Henderson Hospital). Several new non-residential community treatment programmes have been established. However, there is as yet no evidence on their effectiveness.

Consideration of these limitations means that conclusions about the efficacy of therapeutic community treatment remain tentative.

5.11 Complementary therapies

5.11.1 Introduction

Complementary therapies, such as aromatherapy, acupuncture, and homeopathy are not widely used in the treatment of people with borderline personality disorder. This is to some extent surprising as the urgent need for intervention to reduce distress leads many service users to ask for drug treatments many of which have significant side effects, particularly if used for any length of time. Omega-3 fatty acids have been used to some extent and have been the subject of randomised controlled trials (see the pharmacology chapter).

5.11.2 Evidence search

In order to make recommendations for people with borderline personality disorder the GDG asked the clinical question:

For people with borderline personality disorder which treatments are associated with improvement in mental state and quality of life, reduction in self-harm, service use, and risk-related behaviour, and/or improved social and personal functioning whilst minimising harm?

In addition to pharmacological and psychological treatments, the GDG also considered complementary therapies. The most appropriate research design to answer questions of efficacy is the randomised controlled trial, and therefore all relevant randomised controlled trials undertaken in people in

whom a diagnosis of borderline personality disorder had been made were sought. Studies were sought from amongst the citations downloaded in the search for RCTs undertaken in people with borderline personality disorder which are described above. Since no studies were found, other than those in omega-3 fatty acids which are included in the section on pharmacological interventions, the GDG contacted a special advisor who advised on terms for a search string for a further search for studies of any research design. This search was broadened to search for studies on any personality disorder. Information about the databases searched and the inclusion/ exclusion criteria used are in Table 50. The GDG looked for evidence on therapies either available on the NHS or otherwise easily accessible.

Table 50. Databases searched and inclusion/exclusion criteria for clinical evidence.

Electronic databases	MEDLINE, EMBASE, PsycINFO, Cochrane Library, AMED
Date searched	Database inception to 2 May 2008
Study design	Any primary research design
Patient population	Personality disorder
Interventions	Aromatherapy, acupuncture, homeopathy, alternative medicine*, complementary therapy*, relaxation techniques
Outcomes	Any relevant outcomes

* terms used by some databases to cover a range of therapies

5.11.3 Studies considered

No studies were found from the search undertaken. The GDG's special advisor confirmed that he know of no studies of the use of complementary therapies in people with a personality disorder, other than those of omega-3 fatty acids already identified.

5.11.4 Clinical evidence summary

There is no evidence on the use of complementary therapies as treatment in people with a personality disorder. No recommendations could be made.

5.12 Arts therapies

5.12.1 Introduction

Four main arts therapies are currently provided in Britain: art therapy, dance movement therapy, drama therapy, and music therapy. While each employs a variety of different techniques they all focus on non-verbal communication and creative processes together with the facilitation of a trusting, safe environment within which people can acknowledge and express strong emotions (Payne, 1993). These interventions are underpinned by the belief that creative processes encourage self-expression, promote self-awareness and increase insight thereby enhancing a person's psychological wellbeing.

In art therapy, people are encouraged to use a range of art materials to make images and the focus is on the relationship between the image, the creator and

the therapist (Waller & Gilroy). In dance movement therapy, therapists focus on the use of body movement and connections between mind, body and emotions are explored. Drama therapists use games, storytelling and role-play. Music therapists generally co-creating improvised music with talking used to guide, interpret or enhance the musical experience (Bruscia, 1988).

5.12.2 Databases searched and inclusion/exclusion criteria

Studies of arts therapies were sought from amongst the citations downloaded in the search for RCTs undertaken at the beginning of the guideline development process and described above. No studies were found, so an additional search was undertaken for primary research in arts therapies in any personality disorder. Information about the databases searched and the inclusion/ exclusion criteria used are in Table 51.

Table 51. Databases searched and inclusion/exclusion criteria for clinical evidence.

Electronic databases	MEDLINE, EMBASE, PsycINFO, CINAHL
Date searched	Database inception to 2 May 2008
Study design	Any primary research design
Patient population	Personality disorder
Interventions	Music therapy, psychodrama, art therapy, dance therapy, writing therapies, colour therapy
Outcomes	Any relevant outcomes

* terms used by some databases to cover a range of therapies

No studies were found from the search undertaken and a general narrative review was undertaken.

5.12.3 Narrative review of arts therapies

Arts therapies have been widely used as a part of treatment programmes for people with borderline and other forms of personality disorder in Britain (Bateman & Fonagy, 1999; Haigh, 2007; Crawford et al. 2007). In this context arts therapies are usually delivered in groups; individual therapy is less commonly provided. While numerous case series have described the use of arts therapies for people with borderline personality disorder (e.g. Olsson & Barth, 1983; Eren et al. 2000; Schmidt, 2002; Gottschalk & Boekholt. 2004; Havsteen-Franklin, 2007) very little research has, so far, attempted to quantify the impact of arts therapies for people with this condition.

5.12.4 Clinical summary

There is very little research on the effectiveness of arts therapies for people with borderline personality disorder, although they are potentially valuable interventions. No recommendations could be made.

5.13 Clinical practice recommendations

5.13.1 Role of psychological treatment

5.13.1.1 When a decision has been made to offer psychological treatment to a person with borderline personality disorder, healthcare professionals should offer one that provides therapy in at least two modalities (for example, individual or group), has a well-structured programme and a coherent theory of practice. Therapist supervision should be included within the framework of the service.

5.13.1.2 For women with borderline personality disorder for whom reducing recurrent self-harm is a priority, healthcare professionals may consider a comprehensive dialectical behaviour therapy treatment programme.

5.13.1.3 Brief psychotherapeutic interventions (of less than 3 months' duration) should not be used specifically for borderline personality disorder or for the individual symptoms of the disorder.

5.14 Research recommendations

5.14.1 Dialectical behaviour therapy and mentalisation-based therapy for people with borderline personality disorder

5.14.1.1 A randomised trial of complex interventions (dialectical behaviour therapy and mentalisation-based therapy) versus high-quality community care delivered by general mental health services for people with borderline personality disorder in community settings should be undertaken. The study should examine medium-term outcomes (including cost effectiveness) over a period of at least 18 months. It should also pay particular attention to training and supervision of those providing interventions in order to ensure that systems for delivering them are both robust and generalisable.

Why is this important

Research conducted to date suggests that complex interventions, such as dialectical behaviour therapy and mentalisation-based therapy, may benefit people with borderline personality disorder. However trials conducted to date have been small, have often excluded men with borderline personality disorder, and have generally examined interventions delivered in centres of excellence. A pragmatic trial comparing these two complex interventions against high-quality outpatient follow-up by community mental health services would establish effectiveness and the costs and cost effectiveness of these interventions when they are delivered outside such centres. The impact of these interventions among men should also be examined.

5.14.2 Outpatient psychosocial interventions for people with borderline personality disorder

5.14.2.1 Exploratory randomised controlled trials of outpatient psychosocial interventions (such as schema-focused therapy, cognitive analytical therapy, and modified therapeutic community approaches) should be conducted. Such studies should examine medium-term outcomes (for example, quality of life, psychosocial functioning, employment outcomes, and borderline personality disorder symptomatology) over a period of at least 18 months and pay particular attention to training and supervision of those delivering interventions.

Why is this important

The evidence base for the effectiveness of psychosocial interventions for people with personality disorder is at an early stage of development. Data collected from cohort studies and case series suggest that a variety of such interventions may be of benefit to people with borderline personality disorder. Exploratory trials of these interventions should be conducted in order to develop a better understanding of their efficacy. Such studies should also examine the process of treatment delivery in the context of an experimental study, and explore logistical and other factors that could have an impact on the likelihood of larger scale experimental evaluations of these interventions succeeding.

5.14.3 Development of an agreed set of outcomes measures for borderline personality disorder

5.14.3.1 A consensus building exercise should be conducted to determine the main clinical outcomes that should be assessed in future studies of interventions for people with borderline personality disorder. The study should involve people from a range of different backgrounds, including service users, carers, clinicians and academics. Recommendations for specific measures of these outcomes should be selected from among those that are valid, reliable and have already been used in this patient group.

Why is this important

Previous research examining the effects of psychological and pharmacological interventions for people with borderline personality disorder has used a wide range of different outcomes measures. This makes it difficult to synthesise data from different studies and to compare the relative effects of different types of interventions. By agreeing outcome measures to be used in future studies examining the impact of interventions for people with borderline

personality disorder it will be easier to develop evidence-based treatment guidelines in the future.

6 Pharmacological and other physical treatments in the management of borderline personality disorder

6.1 Introduction

Although the treatment of borderline personality disorder with drugs is normally considered to be adjuvant rather than primary treatment, it is surprisingly common. For example, of 112 people identified using a screening instrument as having borderline personality disorder in a national morbidity survey (personal communication from Dr Min Yang, 2007) 31 (28%) were taking antidepressants, 18 (15.5%) sedative and anxiolytic drugs, and 4 (4%) were taking antipsychotics. Of these 4 (13% of the total) were taking one drug only and 34 (30%) were taking two or more drugs, with 4 patients taking 5 drugs simultaneously. Although this is a small study, these data suggest polypharmacy is common amongst this client group.

Possibly because of this widespread use of psychotropic drugs there have been attempts to justify such interventions on a rational pharmacological basis. Previous guidelines, such as those of the American Psychiatric Association, have divided the symptoms of personality disorders into 'affective dysregulation symptoms', 'impulsive- behavioural dyscontrol symptoms' and 'cognitive-perceptual symptoms'. The justification for this separation is based on a psychobiological theory of personality pathology (Siever & Davis, 1991) that has been used pragmatically in assisting drug treatment but which has no satisfactory evidence base. Its purpose appears to be to justify pharmacotherapy in the form of selective serotonin reuptake inhibitors (SSRIs) or related antidepressants such as venlafaxine for affect dysregulation, SSRIs for impulsive behaviour and antipsychotic drugs in low dosage for cognitive perceptual symptoms. However, this subdivision of symptoms in borderline personality disorder has never been tested in hypothesis-driven studies and most of the recommendations for individual treatments are based on post hoc reconstructions rather than primary evidence.

No psychotropic drug has specific marketing authorisation in the UK for the treatment of borderline personality disorder, although some are licensed for the management of individual symptoms or symptom clusters. This means that recommendations which are made for specific pharmacological interventions would be for off-licence indications. The UK drug licensing process involves submission of at least two placebo-controlled randomised controlled trials in human subjects proving efficacy and safety. Furthermore, the UK drug regulatory body (MHRA) also undertakes post-licensing

monitoring of drug safety, collecting and assessing information about adverse reactions and re-assessing a drug's safety if necessary. Therefore, in order to make a strong recommendation for a particular drug robust evidence of its efficacy and safety must be available to the GDG.

6.1.1 Current practice

Polypharmacy

Published follow-up studies describing the care received by people with borderline personality disorder report between 29% and 67% of people studied taking psychotropic mediation (median 33%) (Zanarini et al, 2004). Indeed, many people are taking several classes of psychotropic drugs simultaneously. For example, in a controlled cohort study of mental health service utilisation in the US with 6-year follow-up, 22% of the 362 inpatients studied were taking 2 or more medications concurrently but only 8% were taking 3 or more medications (and 2% taking 4 or more) at 6 years, (Zanarini et al, 2004). However, at 2 years post-baseline 22% were taking 3 or more medications (ibid.)

6.1.2 Issues in undertaking trials in patients with borderline personality disorder

Participants

The generalisability of clinical trials to clinical populations depends partly on the clinical characteristics of the participants recruited. For example, participants with mild illnesses may be recruited because they are more likely to complete a trial's protocol than participants with more severe illness. In trials involving patients with borderline personality disorder there are additional issues. For example, because patients with borderline personality disorder can present with a range of symptoms, studies may selectively recruit those with specific symptoms that are not always representative of the disorder.

Also, many trials of borderline personality disorder recruit participants through media advertisements which may reduce their ability to be representative of those recruited seen in clinical practice. Zanarini et al in the NIMH whitepaper on guidelines for borderline personality disorder research (Herpertz et al, 2007) has suggested that such participants ('symptomatic volunteers') may be representative of patients with less severe symptoms found in some areas of clinical practice. However, this may reflect the different health care system in the United States and not be applicable to the UK. Whilst patients recruited from clinical settings are likely to have serious psychosocial impairment, high service use without much benefit and are symptomatically severe, those recruited via media advertisements may have less psychosocial impairment, but still have a history of service use, and serious borderline psychopathology. The former are described as chronically symptomatic or treatment-resistant, and the latter as acutely symptomatic.

Therefore, the findings of trials which recruit symptomatic volunteers are likely to be relevant to those with acute symptoms whilst those recruiting existing patients may be chronically symptomatic or treatment-resistant. Of course, dichotomising participants like this is artificial since the severity of symptoms occurs on a spectrum. However, it may help to assess the effectiveness of treatments in different settings. For example, symptomatic volunteers may be analogous to patients presenting in primary care settings, with treatment resistant patients being more like those in outpatient or hospital settings.

Diagnosis

Another factor affecting the generalisability of trials is the inclusion of patients with or without comorbid psychiatric disorders. Whilst most trials specifically exclude participants with serious mental illnesses, particularly schizophrenia and bipolar disorder, as well as substance misuse, all of which can make diagnosing borderline personality disorder difficult, some trials also exclude participants with any comorbid axis I disorder. In addition, some trials do not specify whether they have excluded people with an axis I comorbidity. This may reduce generalisability since most people with borderline personality disorder also have an axis I disorder.

Placebo effect

There is some suggestion that placebo effects are higher in some psychiatric populations than other conditions, and appear to be higher in people with milder illness (Kirsch et al, 2008). It is unclear whether this is also true in people with borderline personality disorder.

The placebo effect generally acts more rapidly than with a true drug response, with the effect later being lost. However, large datasets are needed to examine this fully, particularly in patients with borderline personality disorder where symptoms can wax and wane relatively rapidly compared with those of other disorders.

Therapeutic alliance

Most studies do not disentangle the effects of the therapeutic relationship from those of the drug being studied. Research studies tend to be organised to ensure excellent clinical management and reliable collection of data which together may enhance the therapeutic alliance which in turn links to positive outcomes in the treatment of patients with borderline personality disorder. Although studies may be controlled there is often little information about the non-specific components of clinical management in the experimental and the control group.

6.1.3 Reviewing the evidence base

In order to make recommendations about specific drug treatments for people with borderline personality disorder the GDG asked the clinical question:

For people with borderline personality disorder which treatments are associated with improvement in mental state and quality of life, reduction in self-harm, service use, and risk-related behaviour, and/or improved social and personal functioning whilst minimising harm (see appendix 6)?

The most appropriate research design to answer this is the randomised controlled trial, and therefore the evidence base reviewed comprised all available randomised controlled trials undertaken in people in whom a diagnosis of borderline personality disorder has been made. This chapter considers evidence for pharmacological treatments compared with placebo or with another active drug (either alone or in combination). Studies of pharmacological treatments in combination with psychological treatments are considered in the chapter on psychological treatments.

It should be noted that most of the reviewed trials were set up to examine the efficacy of a particular drug in people with a diagnosis of borderline personality disorder rather than to look at specific symptoms. However, whilst some outcomes used in studies are directly related to the borderline personality disorder diagnosis, others are not and, whilst this does not preclude such outcomes being measured and having some value, they should be recognised as secondary ones. Therefore, the evidence is presented in this chapter both by drug class and by symptom (as defined by the outcomes). In addition, analyses were undertaken combining all active treatments (compared with placebo) for each symptom.

The summary study characteristics and descriptions of the studies are given in tables below but more information in available in appendix 16. Similarly, summary evidence profiles are given in tables below with the full profiles in appendix 18 and the forest plots in appendix 17. Reviewed studies are referred to by first author surname in capitals plus year of publication. Full references for these studies are in appendix 16 rather than the reference list in this document for reasons of space.

6.1.4 Evidence search and overview of studies found

Both published and unpublished studies were sought. The electronic databases searched are given in Table 6. Details of the search strings used are in appendix 7.

Table 52: Databases searched and inclusion/exclusion criteria for clinical effectiveness of pharmacological treatments

Electronic databases	MEDLINE, EMBASE, PsycINFO
Date searched	Database inception to January 2007
Update searches	July 2007; January 2008; May 2008
Study design	RCT
Population	People with a diagnosis of borderline personality disorder according to DSM, ICD or similar criteria
Treatments	Any pharmacological treatment for the treatment of the symptoms of borderline personality disorder
Outcomes	See above

Twenty-four RCTs were found from searches of electronic databases, of which four were excluded (see Appendix 16). There were three 3-armed trials. In addition, 3 trials were identified from the internet-based list of trials undertaken by pharmaceutical companies (ClinicalTrials.Gov) which did not appear to have been published, one of divalproex by Abbott Laboratories and two of olanzapine by Eli Lilly). The respective companies were contacted for data and those by Eli Lilly supplied as full trial reports (one of which was later published). A further two trials *in press* were known to the GDG, one of olanzapine (already identified in the search of ClinicalTrials.Gov) and one comparing haloperidol with risperidone, which was not available.

Data were available to compare anticonvulsants, antidepressants, antipsychotics, naloxone and omega-3 fatty acids with placebo, plus some comparisons of one active agent with another (see Table 7). There is one trial of polypharmacy (two or more drugs at once) and none of treatment sequencing (replacing one treatment with another depending on response).

Most of the included studies required participants to be drug free before starting the trial, although a few allowed participants to continue with existing medication and these are noted in the summary study characteristics tables below. The majority of trials were relatively short (between 4 and 12 weeks), and a few were longer (up to 24 weeks). There were very few follow-up data, with only one trial providing long-term follow-up data (at 18 months). No trial specifically recruited participants during a crisis.

Table 53 RCTs of pharmacological treatments

	Anticonvulsants	*Antidepressants*	*Antipsychotics*	*Other*
No. trials (Total participants)	10 RCTs (501)	6 RCTs (311)	12 RCTs (1777)	3 RCTs (88)
Placebo controlled	COWDRY1988** DELAFUENTE1994 FRANKENBURG2002 HOLLANDER2001 HOLLANDER2003 LINKS1990** LOEW2006 NICKEL2004 NICKEL2005 TRITT2003	MONTGOMERY1983** RHINNE2002 SALZMAN1995** SOLOFF1989* SOLOFF1993*	BOGENSCHUTZ2004 ELI LILLY#6253 GOLDBERG1986** NICKEL2006 PASCUAL2008 SCHULTZ2008 SOLOFF1989* SOLOFF1993* ZANARINI2001	HALLAHAN2007 (omega-3 fatty acids) PHILIPSEN2004 (naloxone) ZANARINI2003 (omega-3 fatty acids)
Versus other active drugs			LEONE1982 SERBAN1984** SOLOFF1989* ZANARINI2004	
Combination trials		ZANARINI2004*	ZANARINI2004*	

Notes: * 3-arm trial; **excluded (see appendix 16)

6.1.5 Outcomes

A large number of outcomes, particularly symptom rating scales, were reported by the pharmacological studies. Those that reported sufficient data to be extractable and were not excluded (see Appendix 10) are in Table 10.

Table 54 Outcomes extracted from pharmacological studies

Category	Scale
Aggression	Aggression Questionnaire (AQ) (s)
	OAS-M Aggression subscale
	Overt Aggression Scale - Modified (OAS-M) (total)
Anger	STAXI Total (s)
	STAXI - State Anger (s)
Anxiety	Hamilton Anxiety Rating Scale
	SCL-90 Anxiety (s)
	State-Trait Anxiety Inventory (STAI) (s)
Borderline personality disorder symptomatology	ZAN-BPD
Depression	Beck Depression Inventory Scale (s)
	Hamilton Depression Rating Scale
	Montgomery and Asberg Depression Rating Scale
	SCL-90 Depression (s)
General functioning	Global Assessment of Functioning (GAF)
	Global Assessment Scale (GAS)
	SAT-P Physical functioning (s)

	SAT-P Psychological functioning (s)
	SAT-P Sleep, food, free time (s)
	SAT-P Work (s)
	SCL-90 Total (s)
Mental distress	Global Severity Index (GSI; part of SCL-90) (s)
Hostility	Buss-Durkee Hostility Inventory Total
	SCL-90 Hostility (s)
Impulsiveness	Barratt Impulsiveness Scale (s)
	Self-report Test of Impulse Control total
Self-harm	OAS-M Self Injury
Social functioning	SAT-P Social functioning (s)
	SCL-90 Insecurity in social contacts (s)
	SCL-90 Interpersonal sensitivity (s)
Suicidality	OAS-M Suicidality
Acceptability	Number leaving treatment early for any reason
Tolerability	Number leaving treatment early because of side effects
	Number reporting side effects
	Number with specific side effects (see individual reviews)

(s) self-completed scale

See Chapter 2 and Appendix 10 for more information on how the GDG tackled the issue of outcomes.

6.1.6 Potential sources of bias

Since both publication bias and bias due to study funding can affect the conclusions of a review, attempts were made to explore both sources of bias.

Publication bias

There were too few studies to undertake funnel plots to ascertain publication bias so this could not be explored. However, unpublished studies were sought and included where possible. Since no drug has specific marketing approval for borderline personality disorder there may be unpublished studies in which a drug marketed for another disorder has been tested in people with borderline personality disorder. It is not known whether licensing has ever been sought for any drug specifically for people with borderline personality disorder.

Funding bias

Since study funding has been shown to have an effect on study outcome in drug trials, with studies which are industry sponsored or involved a drug company employee more likely to find a positive result than independently funded studies (for example, Tungaraza & Poole, 2007), this was explored as a source of bias. Studies' funding source was therefore noted with the study characteristics and a sub-analysis performed of the placebo-controlled trials to ascertain whether this could be a cause of bias, and therefore whether study funding should be taken into account when grading the evidence. Since so many outcomes were reported by the included studies, this analysis was undertaken by combining all the efficacy outcomes for studies reporting more

than one[8], keeping clinician-rated and self-rated outcomes separate. Funding sources were classified as follows:

None = no funding received to undertake the study (must be explicitly stated in the study)
Pharma = funding from a pharmaceutical company
Part-pharma = funding by a combination of funding from a pharmaceutical company and other sources
Research = funding from research bodies, such as NIMH
Unclear = funding unclear or not stated

The sub-analysis showed little difference between the funding sources, other than for studies receiving no funding which showed much larger effect sizes favouring treatment than studies funded from other sources - see Table 55. This was a surprising finding. Also, the number of studies in each category was low. Therefore, the GDG decided that study funding could not be used as a factor in grading the quality of evidence.

In addition, as a result of this analysis, it was noted that four of the RCTs included for analysis showed large effect sizes favouring treatment compared with those from other pharmacology trials, and that the authors of these trials declared that they had had no funding. The GDG contacted the authors to seek clarification about the funding for these trials. The responses were unclear. The GDG then contacted one of the journals which had published one of the trials to seek clarification about their understanding about sources and levels of funding. The GDG were unable to gain clarity in this regard and took the decision not to consider these trials when drawing up their conclusions. These trials were LOEW2006, NICKEL2004, NICKEL2005, and NICKEL2006.

Table 55 Summary evidence profile for sub-analyses by study funding

Clinician-rated measures (Pharm 23.01)	**SMD (95% confidence intervals)**	**Overall evidence quality**	**Number of studies/number of participants**
01 None	-0.99 (-1.56, -0.42)	Moderate	(K = 1; n=52)
02 Pharma	-0.12 (-0.26, 0.03)	Moderate	(K = 3; n=696)
03 Research body	-0.4 (-0.73, -0.07)	Moderate	(K = 3; n=144)
04 Unclear	-0.51 (-1.38, 0.35)	Very low	(K = 1; n=20)
Total	-0.21 (-0.34, -0.08)	Moderate	(K = 8; n=912)
Self-rated measures (Pharm 23.02)			
01 None	-1.99 (-2.68, -1.29)*	Moderate	(K = 4; n=179)
02 Pharma	-0.23 (-0.41, -0.05)	Moderate	(K = 4; n=652)
03 Research body	-0.25 (-0.61, 0.12)	Very low	(K = 2; n=117)
04 Unclear	-1.6 (-3.8, 0.6)*	Very low	(K = 2; n=47)
05 Part-pharma	-0.8 (-2.03, 0.44)	Very low	(K = 1; n=9)
Total	-0.97 (-1.40, -0.55)*	Moderate	(K = 13; n=1004)

[8] Effect sizes calculated with Comprehensive Meta-Analysis and entered into RevMan using the generic inverse variance method to generate forest plots

* random effects

6.2 Anticonvulsants and lithium

6.2.1 Introduction

Mood lability is a core symptom of borderline personality disorder and the co-occurrence with bipolar illness in people with borderline personality disorder is higher than expected (Swarts et al, 2005). Nevertheless, the degree of overlap is small once the effects of mood lability are accounted for (Paris et al, 2007); in addition some of the association may represent mis-diagnosis. Antimanic drugs including anticonvulsants and lithium are associated with varying degrees of efficacy in bipolar illness, (NCCHH, 2005) are therefore often used in the treatment of mood related symptoms in people with borderline personality disorder (Frankenberg & Zanarini, 2002).

Impulsive aggression is also a key feature of borderline personality disorder. Anticonvulsant drugs, mainly carbamazepine and valproate, have a long history of being used to treat aggression and irritability in a wide range of psychiatric and neurological conditions. This use was originally based on the theory that episodic behavioural dyscontrol is a symptom of abnormal CNS neuronal conduction in the same way as an epileptic seizure is (e.g. Lewin & Sumners, 1992).

Anticonvulsant drugs act in a number of ways that may be relevant to the treatment of symptoms of borderline personality disorder. These include stabilisation of neuronal conduction via voltage dependent blockade of Na channels, agonist activity at
GABA (an inhibitory neurotransmitter) receptors and antagonist activity at glutamate (an excitatory neurotransmitter) receptors. Glutamate antagonists may have anti-manic and anti-panic effects, and GABA agonists are known to be anxiolytic. Different anticonvulsant drugs have different mechanisms of action, although the choice of drug tends to be based much more on empirical than pharmacodynamic evidence.

Lithium has mood stabilising effects and is licensed for the treatment and prophylaxis of bipolar disorder. It is also licensed for the treatment of aggressive and self-mutilating behaviour. Impulsive aggression has been linked with reduced CNS serotonergic activity, and this may be influenced by lithium.

Ten studies of anticonvulsants were found. These included two cross-over trials which are difficult to include in meta-analyses unless pre-cross-over data are also provided. Since this was not the case in either trial, both were excluded. One was of lithium and one of alprazolam, carbamazepine,

trifluoperazine and tranylcypromine. See Table 56 for a summary of the study characteristics of included studies.

Table 56 Study characteristics of included placebo-controlled trials of anticonvulsants

	Carbamazepine	*Valproate*	*Lamotrigine*	*Topiramate*
No. trials (Total participants)	1 RCT (20)	3 RCTs (292)	1 RCT (27)	3 RCTs (129)
Study IDs	DELAFUENTE1994	(1) FRANKENBURG2002 (2) HOLLANDER2001 (3) HOLLANDER2003	TRITT2003	(1) LOEW2006 (2) NICKEL2004 (3) NICKEL2005
N/% female	20/70	(1) 30/100 (2) 16/unclear but around 50 (3) 246/31	27/100	(1) 56/100 (2) 31/100 (3) 44/0
Mean age (or range if not given)	32	(1) 27 (2) 39 (3) 40	29	(1) 25 (2) 26 (3) 29
Axis I/II disorders	Specifically excluded	(1) Bipolar II (2) Specifically excluded (3) Cluster B, intermittent explosive disorder or PTSD	Excluded most major axis I disorders	(1) 73% depressive disorders; 52% anxiety; 13% OCD; 63% somatoform disorders (2) SMI excluded (3) SMI excluded
Treatment	Carbamazepine mean serum levels achieved 6.44µg to 7.07 µg	(1) Divalproex (2) Divalproex (3) Divalproex	Lamotrigine	(1) Topiramate 200 mg (2) 250 mg (3) 250 mg
Additional interventio n	Atheoretical psychotherapy	(1) (2) None (3) 17% used an antidepressant; small number used zolpidem for sleep problems	None	None
Setting	Inpatients, Belgium	(1) Symptomatic volunteers (2) Mixed sample (3) Outpatients All US	Symptomatic volunteers; Finland	Symptomatic volunteers; Germany
Length of treatment	Mean 4.5 weeks	(1) 6 months (2) 10 weeks (3) 12 weeks	8 weeks	(1) 12 weeks (2) 8 weeks (3) 8 weeks
Length of follow-up	None	None	None	None
Notes		(2) very high dropout rate data not usable (3) allowed to continue antidepressants if taken them for >= 2 months at baseline and stable		

6.2.2 Carbamazepine

Carbamazepine is an anticonvulsant drug that is also licensed for the treatment of trigeminal neuralgia and for prophylaxis in bipolar affective disorder where symptoms have not responded adequately to lithium. It is commonly believed that carbamazepine has specific anti-aggressive properties but the supporting evidence is weak.

The theoretical basis for the use of carbamazepine both to regulate mood and to decrease aggression, centres around its mechanism of action; carbamazepine blocks Na channels, decreases glutamate release and reduces the turnover of dopamine and nor-adrenaline (Summary of Product Characteristics: www.medicines.org.uk).

Carbamazepine is a potent inducer of hepatic cytochrome enzymes and therefore interacts with many other commonly prescribed drugs. For example, it induces the metabolism of oral contraceptives, thus increasing the risk of unwanted pregnancy. It is also a human teratogen (for example, Morrow *et al*., 2006).

Study reviewed

DeLaFuente1994 – this compared carbamazepine with placebo in a very small sample of inpatients (n = 20) who met criteria for borderline personality disorder (DSM-IIIR) but not for any axis I 'disturbances' and not for major depressive disorder. However, at baseline the levels of depression were high (HRSD-24 28 (10.92) to 30.7 (4.11)). Participants also received supportive atheoretical psychotherapy throughout, but no details are given as to what this involved. The study found no effect on outcomes for carbamazepine compared with placebo apart from severe psychopathology (favouring placebo). Levels of depression were reduced, but participants would still be classified depressed based on the APA severity categories for the HRSD (REF). However, only 2 (both CBZ) patients left treatment early. Table 57 shows the summary evidence profile.

Table 57 Summary evidence profile for carbamazepine versus placebo

Symptom	**Depression**	**Hostility**	**Severe psychopathology**	**Leaving treatment early**	**Leaving treatment early due to side effects**	**N reporting side effects**
Clinician-rated effect size	SMD = -0.52 (-1.41, 0.38)*		SMD = 1.27 (0.29, 2.25)	RD = 0.2 (-0.08, 0.48) 20% vs 0%	RD = 0 (-0.17, 0.17) 0% vs 0%	RD = 0 (-0.17, 0.17) 0% vs 0%
Quality of evidence	Very low		Moderate	Very low	Very low	Very low
Number of studies/participants	(K = 1; n=20)		(K = 1; n=20)	(K = 1; n=20)	(K = 1; n=20)	(K = 1; n=20)
Forest plot	Pharm 06.06		Pharm 13.01	Pharm 15.06	Pharm 16.05	Pharm 17.05

Self-rated effect size	SMD = -0.67 (-1.57, 0.24)	SMD = -0.34 (-1.23, 0.54)*				
Quality of evidence	Very low	Very low				
Number of studies/participants	(K = 1; n=20)	(K = 1; n=20)				
Forest plot	Pharm 07.07	Pharm 09.02				

* based on skewed data

Comment

Only one RCT of carbamazepine in people with borderline personality disorder met inclusion criteria. This study is small and does not show any significant advantage for carbamazepine over placebo with respect to overall psychopathology, depression or hostility. There is no evidence for its use as a mood stabiliser in people with borderline personality disorder, and no good quality evidence on its acceptability and tolerability. Carbamazepine has a propensity to interact with other drugs, and is not recommended for routine use in the treatment of bipolar disorder (NICE, 2006). There is therefore insufficient evidence on which to recommend carbamazepine for the treatment of borderline personality disorder.

6.2.3 Valproate

Valproate is available as sodium valproate and valproic acid, both of which are licensed only for the treatment of epilepsy, and semisodium valproate which is licensed for the treatment of mania. The active ingredient of all preparations is the same and is usually referred to as valproate.

Valproate is widely prescribed in the treatment of mania and prophylaxis of bipolar affective disorder.

The mechanism of action of valproate is not understood. It is thought to potentiate GABA pathways (Summary of Product Characteristics, www.medicines.org.uk).

Valproate is a major human teratogen (for example, Wyszynski et al, 2005) and is not recommended for women of child-bearing potential (NICE, 2007).

Reviewed studies

Frankenberg2002 – this study compared divalproex with placebo in 30 women with borderline personality disorder and comorbid BDII. The women were moderately ill with borderline personality disorder but were euthymic at baseline. There was a high attrition rate (65% vs 60%).

Hollander2001 – small study (n = 16) (about half women, but unclear as demographics given for larger group initially recruited by not all randomised (n=21)). All the placebo group and half the divalproex group left treatment early.

Hollander2003 – this was a large placebo-controlled trial (n = 244, 96 with cluster B PD, the rest with intermittent explosive disorder or PTSD). A relatively large number of participants left treatment early (47% in the divalproex group and 45% in the placebo group – cluster B group only).

There are 3 studies of divalproex in the treatment of the symptoms of borderline personality disorder, although one includes other Cluster B personality disorders, intermittent explosive disorder or PTSD. Two of the trial were very small, but that which included other Cluster B PD diagnoses, was relatively large (n = 246). The attrition rate in all studies was very high.

There appears to be some effect on depression, although the overall findings are not convincing given the mix of PD diagnoses in the larger study. The summary evidence profile is in

Mentalisation/day hospital treatment

One trial reported a treatment combining mentalisation-based therapy with day hospital treatment (BATEMAN1999). See Table 13 for further details.

Table 13 Summary study characteristics of RCTs of mentalisation/day hospital

	Partial-hospitalisation/mentalisation-based treatment
No. trials (Total participants)	1 RCT (44)
Study IDs	BATEMAN1999
N/% female	44/50
Mean age (or range if not given)	32
Axis I/II disorders	100% borderline personality disorder
Comparator	Standard care
Additional intervention	
Setting	Day hospital
Length of treatment	18 months
Length of follow-up	5 years

Evidence profile for complex interventions

A wide range of outcomes were reported, which also included some follow-up data. The summary evidence profiles are in Table 14, Table 15, Table 16, and Table 17.

Compared with treatment as usual, complex interventions showed some effect on anxiety, depression and symptoms of borderline personality disorder, although the evidence quality was moderate. These interventions also retained people in treatment compared with treatment as usual. People with borderline personality disorder also reported better employment outcomes (number of years in employment) following a complex intervention (specifically MBT with partial hospitalisation) at 5-year follow-up.

Table 14 Summary evidence profile for complex interventions versus treatment as usual: general outcomes

Symptom	Anger	Anxiety	Depression	Mental distress	borderline personality disorder symptoms	Employment-related (No years employment)	General functioning	Leaving treatment early due to side effects
Therapy	DBT	DBT (MBT at follow-up)	DBT (MBT for self-rated)	MBT	DBT (MBT at follow-up)	MBT	MBT	DBT MBT
Clinician-rated effect size	SMD = -0.59 (-1.52, 0.35)	SMD = -1.22 (-1.92, -0.52)**	SMD = -0.57 (-0.92, -0.22)*	SMD = -0.39 (-1.03, 0.26)	SMD = -0.6 (-2.34, 1.14)+			RR = 0.61 (0.43, 0.86) (23% vs 39%)
Quality of evidence	Very low	Moderate	Moderate	Very low	Moderate			Moderate
Number of studies/participants	(K = 1; n=19)	(K = 1; n=38)	(K = 3; n=133)	(K = 1; n=38)	(K = 1; n=20)			(K = 5; n=294)
Forest plot	Psych 01.01	Psych 01.02	Psych 01.05	Psych 01.9	Psych 01.12			Psych 01.16
Clinician-rated effect size at follow-up 1	SMD = -0.91 (-1.99, 0.18) (12 months)	SMD = -3.49 (-4.63, -2.36) (18 months)		SMD = -2.09 (-2.93, -1.25) (18 months)				
Quality of evidence	Moderate	Moderate		Very low				
Number of studies/participants	(K = 1; n=15)	(K = 1; n=33)		(K = 1; n=36)				
Forest plot	Psych 01.01	Psych 01.02		Psych 01.9				
Clinician-rated effect size at follow-up 2	SMD = -0.59 (-1.52, 0.35) (24 months)				SMD = -9.6 (-12.83, -6.38)+ (5 years)	WMD = -2 (-3.29, -0.71)+ (5 years)	SMD = -0.74 (-1.38, -0.1) 5 years	
Quality of evidence	Very low				Moderate	Moderate	Moderate	
Number of studies/partici	(K = 1; n=19)				(K = 1; n=41)	(K = 1; n=41)	(K = 1; n=41)	

pants								
Forest plot	Psych 01.01				Psych 01.12	Psych 01.14	Psych 01.15	
Self-rated effect size	None reported	SMD = -0.7 (-1.53, 0.13)+	SMD = -1.49 (-1.99, -0.99)+					
Quality of evidence		Moderate	Moderate					
Number of studies/participants		(K = 1; n=24)	(K = 3; n=82)					
Forest plot		Psych 01.03	Psych 01.05					
Self-rated effect size at follow-up			SMD = -1.15 (-1.85, -0.45) (18 months)					
Quality of evidence			Moderate					
Number of studies/participants			(K = 1; n=38)					
Forest plot			Psych 01.06					

+ based on skewed data

** 2 different measures of anxiety were reported which the GDG did not consider could be combined (HARS and STAI state anxiety). Since the effect sizes from both measures were very similar, only one is reported here (STAI state anxiety)

Complex interventions also showed some benefit on the rate of self-harm and suicidal ideation, with benefits persisting at follow-up (measured at 5 years for MBT with partial hospitalisation only). One study of DBT, LINEHAN2002, did not provide extractable data in the paper, although reported that there was no effect of treatment on parasuicide rates of treatment (measured using PHI).

Table 15 Summary evidence profile for complex interventions versus treatment as usual: self-harm and suicide-related outcomes

Outcome	Self-harm	Self-harm and suicidal acts reported together	Self-harm with suicidal intent	Beck Suicidal Ideation Scale	Suicide attempts	No of A&E visits (presumed due to self-harm)
Therapy	DBT	DBT	DBT	DBT	MBT	MBT
Continuous data effect sizes	WMD = -0.17 (-2.15, 1.82)+	WMD (random effects) = -2.50 (-6.63, 1.62)+	WMD = -0.2 (-0.55, 0.15)+	SMD = -1.04 (-1.68, -0.4)+		
Quality of evidence	Moderate	Very low	Very low	Moderate		
Number of studies/participants	(K = 3; n=185)	(K = 2; n=44)	(K = 1; n=44)	(K = 2; n=44)		
Forest plot	Psych 01.07	Psych 01.07	Psych 01.07	Psych 01.07		
Continuous data effect sizes at follow-up 1					SMD = -0.63 (-1.26, 0) (5 years)+	SMD = -1.4 (-2.09, -0.7)+ (5 years)

Quality of evidence **Number of studies/participants** **Forest plot**					Moderate (K = 1; n=41) Psych 01.07	Moderate (K = 1; n=41) Psych 01.07
Therapy	DBT MBT				DBT MBT (MBT only at follow-up)	
Dichotomous data effect sizes	RR = 0.54 (0.34, 0.86) (33% vs 58%)				RR (random effects) = 0.37 (0.16, 0.87) (15% vs 37%)	
Quality of evidence	Moderate				Moderate	
Number of studies/participants	(K = 2; n=96)				(K = 4; n=260)	
Forest plot	Psych 01.8				Psych 01.8	
Dichotomous data at follow-up 1					RR = 0.31 (0.14, 0.7) (23% vs 74%) (5 years)	
Quality of evidence					Moderate	
Number of studies/participants					(K = 1; n=41)	
Forest plot					Psych 01.8	

+ based on skewed data

Complex interventions also had some benefit on service-use outcomes such as hospital admissions and emergency department visits. MBT with partial hospitalisation also reduced the amount of psychiatric outpatient treatment required and the number of years on 3 or more drugs at 5-year follow-up.

Table 16 Summary evidence profile for complex interventions versus treatment as usual: service-use outcomes

(Outcomes based on number of participants >= 1 visit or admission unless stated)

Outcome	Emergency Department Visits for Psychiatric reasons	Emergency Department Visits for suicide ideation (endpoint)	Hospital admission for psychiatric reasons	Hospital admission for suicidal ideation	Hospital admission for self-harm	No on medication at endpoint	No years further psychiatric outpatient treatment	No years on 3 or more drugs (5-year follow-up)
Therapy	DBT	DBT	DBT	DBT	DBT	MBT	MBT	MBT
Continuous data effect sizes			WMD (random effects) = -5.42 (-14.01, 3.17)**+		WMD = -0.72 (-1.97, 0.53)**+			
Quality of evidence			Very low		Moderate			

Number of studies/participants			(K = 3; n=136)		(K = 1; n=73)			
Forest plot			Psych 01.11		Psych 01.11			
Continuous data at follow-up 1			WMD = -0.45 (-0.57, -0.33) (24 months)+					
Quality of evidence			Moderate					
Number of studies/participants			(K = 1; n=37)					
Forest plot			Psych 01.11					
Continuous data at follow-up 2	WMD = -5.63 (-8.23, -3.03) (5 years)		WMD = -5.93 (-8.47, -3.39) **+(5 years)				WMD = -1.6 (-2.64, -0.56) +(5 years)	WMD = -1.7 (-2.56, -0.84) +(5 years)
Quality of evidence	Moderate		Moderate				Moderate	Moderate
Number of studies/participants	(K = 1; n=41)		(K = 1; n=41)				(K = 1; n=73)	(K = 1; n=73)
Forest plot			Psych 01.11				Psych 01.11	Psych 01.11
Dichotomous data effect sizes	RR = 0.61 (0.42, 0.89)	RR = 0.48 (0.22, 1.04)	RR = 0.54 (0.32, 0.91)**	RR = 0.28 (0.11, 0.71)	RR = 0.82 (0.36, 1.89)	RR = 0.47 (0.25, 0.88)		
Quality of evidence	Moderate	Moderate	Moderate	Moderate	Very low	Moderate		
Number of studies/participants	(K = 1; n=89)	(K = 1; n=89)	(K = 2; n=162)	(K = 1; n=89)	(K = 1; n=73)	(K = 1; n=38)		
Forest plot	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10		
Dichotomous data at follow-up 1	RR = 0.65 (0.35, 1.23) (24 months)	RR = 0.63 (0.21, 1.91) (24 months)	RR = 1.05 (0.47, 2.32) (24 months)	RR = 0.89 (0.33, 2.41) (24 months)				
Quality of evidence	Very low	Very low	Very low	Very low				
Number of studies/participants	(K = 1; n=81)	(K = 1; n=81)	(K = 1; n=81)	(K = 1; n=81)				
Forest plot	Psych 01.10	Psych 01.10	Psych 01.10	Psych 01.10				

1 + based on skewed data
2 ** based on number of days' admission
3

There was some benefit for complex interventions on social functioning outcomes on employment performance, but not on other outcomes.

Table 17 Summary evidence profile for complex interventions versus treatment as usual: social functioning outcomes

Outcome	Social Adjustment Scale - work performance (18 months)	Social Adjustment Scale - anxious rumination (18 months)	Social Adjustment Scale - employment performance (18 months)
Therapy	DBT	DBT	DBT
Continuous data effect sizes	SMD = -0.33 (-0.9, 0.24)	SMD = -0.71 (-1.56, 0.14)	SMD = -0.8 (-1.4, -0.2)
Quality of evidence	Moderate	Very low	Moderate
Number of studies/participants	(K = 1; n=14)	(K = 1; n=13)	(K = 1; n=10)
Forest plot	Psych 01.13	Psych 01.13	Psych 01.13
Continuous data at follow-up 1	SMD = -0.44 (-1.18, 0.3)	SMD = -0.44 (-1.42, 0.54)	SMD = -1.04 (-1.73, -0.35)
Quality of evidence	Very low	Very low	Moderate
Number of studies/participants	(K = 1; n=14)	(K = 1; n=13)	(K = 1; n=8)
Forest plot	Psych 01.13	Psych 01.13	Psych 01.13

Complex interventions in people with borderline personality disorder and substance dependence

In addition to the RCT evidence of complex interventions in people with a diagnosis of borderline personality disorder, two RCTs reported DBT in people with comorbid substance dependence (LINEHAN1999, 2002). These reported a range of drug-related outcomes. DBT helped to improve the proportion of days abstinent from drugs and alcohol (at endpoint and 16-month follow-up), but did not increase the proportion with clean urin-analyses or self-reported days' abstinence from heroin.
.

It should be noted that valproate is not recommended for use in women of childbearing potential (NICE bipolar and APMH guidelines) because of high risk of teratogenicity (NCCMH, 2007).

Table 58 Summary evidence profile for valproate

Symptom	Aggression	Depression	Hostility	Leaving treatment	Leaving treatment	N reporting	Weight

				early	early due to side effects	side effects	
Clinician-rated effect size	SMD = -0.15 (-0.56, 0.27)*			RD = 0.03 (-0.09, 0.14) 47% vs 42%	RD = 0.09 (0.02, 0.17) 14% vs 5%	RD = 0.1 (0.02, 0.17) 74% vs 74%	WMD = 1.04 (-0.54, 2.62)
Quality of evidence	Very low			(K = 3; n=292)	(K = 3; n=292)	(K = 3; n=292)	Very low
Number of studies/participants	(K = 1; n=91)			Very low	Very low	Very low	(K = 1; n=30)
Forest plot	Pharm 03.01			Pharm 15.06	Pharm 16.05	Pharm 17.05	Pharm 18.03
Self-rated effect size	SMD = -0.54 (-1.89, 0.82)*	SMD = -0.61 (-1.29, 0.07)*	SMD = -0.15 (-0.91, 0.61)				
Quality of evidence	Very low	Low	Very low				
Number of studies/participants	(K = 1; n=9)	(K = 2; n=39)	(K = 1; n=30)				
Forest plot	Pharm 03.02	Pharm 07.07	Pharm 09.02				

* based on skewed data

Comment

Valproate (as Divalproex) does not appear to have a reliable effect on symptoms experienced by people with borderline personality disorder. In addition, there is no good quality evidence on its acceptability and tolerability. There is therefore insufficient evidence on which to base a recommendation for the use of valproate in the management of borderline personality disorder.

6.2.4 Lamotrigine

Lamotrigine is an anticonvulsant drug that also has some efficacy in the acute treatment and prophylaxis of depression in the context of bipolar disorder (Calabrese et al, 1999; Schaffer et al, 2006). It is also used to augment clozapine in treatment-resistant schizophrenia (Tiihonen et al, 2003). Lamotrigine is licensed only for the treatment of epilepsy.

Lamotrigine blocks Na channels and reduced glutaminergic neurotransmission (SPC; www.medicines.org.uk).

Although generally well tolerated, lamotrigine is associated with skin reactions, some of which are life-threatening, such as Stevens-Johnson syndrome. The risk is greatest during dosage titration and is increased in patients also taking valproate (SPC).

Studies reviewed

Tritt2005 – this study compares lamotrigine (up to 200 mg) with placebo for anger symptoms in 27 women with a borderline personality disorder diagnosis aged between 20 and 40. The 8-week study was undertaken in Finland, with moderately ill patients recruited through GP advertisements

(symptomatic volunteers). Patients were recruited if they perceived that the excessive burdens caused by the situations in their lives produced feelings of constantly increasing anger.

The study found that lamotrigine was statistically significantly more effective on all five sub-scales of the STAXI anger expression scale, but other symptoms such as affective instability commonly found in association with anger (Weinstein & Jamison, 2007), were not recorded. No significant side effects were reported.

Table 59 Summary evidence profile for lamotrigine

Symptom	**Anger (state anger)**	**Leaving treatment early**	**Leaving treatment early due to side effects**	**N reporting side effects**	**Weight change**
Clinician-rated effect size	SMD = -2.75 (-3.87, -1.62)	RD = -0.17 (-0.46, 0.12) 6% vs 22%	RD = 0 (-0.15, 0.15) 0% vs0%	RD = 0 (-0.1, 0.1) 0% vs 0%	WMD = -0.13 (-9.82, 7.22)
Quality of evidence	Moderate	Very low	Very low	Moderate	Very low
Number of studies/participants	(K = 1; n=27)				(K = 1; n=27)
Forest plot	Pharm 04.01	Pharm 15.06	Pharm 16.05	Pharm 17.05	Pharm 18.03

Comment

One small study showed that lamotrigine is effective in reducing anger symptoms in people with borderline personality disorder. There is no evidence for its use as a mood stabiliser in this population. There is no good quality evidence on the acceptability of lamotrigine, although there is no evidence of an increase in reported side effects. However, lamotrigine is associated with risks such as skin rashes, although these can be minimised by titrating the dose gradually. There is insufficient evidence on which to base a recommendation for the use of lamotrigine in the management of borderline personality disorder.

6.2.5 Topiramate

Topiramate is an anticonvulsant drug that is licensed in epilepsy and for the prophylaxis of migraine It has also been used in the treatment of mania (Vieta et al, 2003) and rapid cycling bipolar illness (Chen et al, 2005) but is not licensed for these indications. Topiramate blocks Na channels, increases the activity of GABA and weakly antagonises the kainate/AMPA subtypes of the glutamate receptor.

It is of note that in epilepsy RCTs, 5-10% of patients randomised to topiramate experienced concentration and/or memory difficulties, depression,

nervousness, mood problems and anxiety (SPC). There are also post-marketing reports of treatment emergent suicidal ideation and acts (SPC). It is unknown if people with borderline personality disorder are particularly vulnerable to these side-effects. Topiramate is reliably associated with weight loss; a side-effect that has been utilised in the management of antipsychotic-induced weight gain (eg Dursan et al, 2000).

Studies reviewed

Nickel2005 – an RCT undertaken in Germany comparing topiramate (mean dose 250 mg) with placebo in 44 men who were moderately ill with borderline personality disorder but who did not have depression or substance use disorder. Participants were recruited from outpatients and media advertisements. It was an 8-week study. Participants taking topiramate experienced some weight loss during the study (5kg difference in weight loss compared with those in the placebo group) (not significant in the overall analyses). However, the study may have limited generalisability since it was relatively short-term, included only men (although the authors undertook a similar trial in women), participants were excluded if they were taking concurrent psychotropic medication, and there was no follow-up.

Nickel2004 – an RCT undertaken in Germany comparing topiramate (mean dose 250 mg) with placebo in 29 women aged between 20 and 35 who were moderately ill with borderline personality disorder but who did not have depression or SUD. Results were similar to the later trial in men, although average difference in weight loss between the two groups was lower (2.3 kg).

Loew2006 – a 10-week RCT undertaken in Germany comparing topiramate (mean dose 200 mg) with placebo in 56 women aged between 18 and 35 with borderline personality disorder. The protocol is similar to that for other studies (Nickel2004 and 2005), although different outcomes measures were used. A number of women had axis I comorbidities including depressive disorders (>70%), anxiety disorders (> 50%), OCD (>10%), and somatoform disorders (>60%).

(It is also of note that the same group found almost identical results with the same instruments in the treatment of women with recurrent depressive disorder who also showed anger symptoms (Nickel et al, (2005).)

There are three small short-term RCTs of topiramate in borderline personality disorder populations recruited by advertisement that are all from the same group of authors based in Germany. They find some benefit for topiramate (mean doses 200 mg to 250 mg) on some aspects of borderline personality disorder symptomatology, including anger, anxiety, depression and hostility. There was an average difference in weight between topiramate and placebo of nearly 5kg (with those taking topiramate losing weight) but this was not statistically significant. Table 60 shows the summary evidence profile.

Table 60 Summary evidence profile for topiramate

Symptom	Anger (state anger)	Anxiety	Depression	Hostility	Leaving treatment early	Leaving treatment early due to side effects	N reporting side effects	Weight
Clinician-rated effect size	SMD (random effects) = -2.67 (-4.41, -0.94)	SMD = -1.4 (-1.99, -0.81)			RD = -0.04 (-0.13, 0.05) 4% vs 8%	RD = 0 (-0.05, 0.05) 0% vs 0%	RD = 0 (-0.06, 0.06) 0% vs 0%	WMD = -4.93 (-20.34, 10.48)
Quality of evidence	Moderate	Moderate			Very low	Very low	Very low	Very low
Number of studies/participants	(K = 2; n=71)	(K = 1; n=56)			(K = 3; n=131)	(K = 3; n=131)	(K = 2; n=86)	(K = 3; n=127)
Forest plot	Pharm 04.01	Pharm 05.03			Phar 15.06	Pharm 16.05	Pharm 17.05	Pharm 18.03
Self-rated effect size			SMD = -0.51 (-1.04, 0.02)	SMD = -3.1 (-3.89, -2.3)				
Quality of evidence			Moderate	Moderate				
Number of studies/ participants			(K = 1; n=56)	(K = 1; n=56)				
Forest plot			Pharm 07.07	Pharm 09.02				

Comment

There is some evidence that topiramate is effective in reducing symptoms of anger, anxiety, depression and hostility in people with borderline personality disorder (studies all undertaken by Nickel and associates). There is no evidence for its use as a mood stabiliser in this population and no good quality evidence on its acceptability and tolerability.

6.3 Antipsychotics

6.3.1 Introduction

Antipsychotic drugs can be broadly described as fitting into two groups; first-generation (FGA or typical) and second-generation (SGA or atypical). All are licensed for the treatment of schizophrenia. Some SGAs are also licensed for the treatment of mania and prophylaxis of bipolar disorder. FGAs have broader licensed indications than SGAs; as well as psychosis, these include psychomotor agitation, violent or dangerously impulsive behaviour and the short-term management of severe anxiety.

Antipsychotics are associated with a wide range of side-effects. FGAs tend to cause more EPS and SGAs more weight gain. Note that licensed indications and the nature and severity of individual side-effects are drug specific. Further information can be found in the BNF/SPC.

Many of the licensed indications for antipsychotics are similar to the core features of borderline personality disorder. In particular, cognitive and perceptual distortions such as paranoid ideation, illusions and dissociation, mood symptoms, irritability and aggression may respond to antipsychotics, although in borderline personality disorder they tend to be transient symptoms linked strongly to crisis and mood instability.
Antipsychotic drugs exert their therapeutic effect through dopamine pathways. Most are D_2 antagonists. Some also affect serotonin pathways.

Antipsychotic treatment is sometimes combined with psychological therapy in an attempt to reduce attrition rates (these data are reviewed in the psychology chapter).

6.3.2 Studies reviewed

Eight placebo-controlled trials and one head-to-head trial met inclusion criteria with one being excluded from each category (see appendix 16). In addition, there was one trial comparing antipsychotic treatment with combined antipsychotic-antidepressant treatment.

6.3.3 Placebo-controlled trials

The included placebo-controlled trials are shown in Table 61.

Table 61 Study characteristics for placebo-controlled antipsychotic trials

	Amitriptyline	*Olanzapine*	*Haloperidol*	*Aripiprazole*	*Thiothixene* **	*Ziprasidone*
No. trials (Total participants)	1 RCT (90)	4 RCTs (833)	2 RCTs (198)	1 RCT (52)	1 RCT (50)	1 RCT (60)
Study IDs	SOLOFF1989	(1) BOGENSCHUTZ2004 (2) ELI LILLY #6253 (3) SCHULTZ2008 (4) ZANARINI2001*	(1) SOLOFF1989 (2) SOLOFF1993	NICKEL2006	GOLDBERG1986 [excluded]	PASCUAL2008
N/% female	90/76	(1) 40/63 (2) 451/74 (3) 314/71 (4) (4) 28/100	(1) 90/76 (2) 108/76	52/83	50/58	60/82
Mean age (or range if not given)	25	(1) 33 (2) 33 (3) 32 (4) 27	(1) 25 (2) 27	22	32	29
Axis I/II disorders	39% BDP/4% SPD/57% mixed	100% BPD	(1) 39% BDP/4% SPD/57% mixed (2) 61% mixed	100% BPD	26% primary diagnosis SPD; 40% comorbid SPD	100% BPD
Additional intervention	(1) Usual group milieu or individual therapies in inpatient unit, biperiden hydrochloride for EPS	(2) 7.2% (n=11) of the olanzapine group and 1.9% (n=3) of the placebo group used psychotherapy (3) 4.6% (n=7) of the lower dose group, 0.7% (n = 1) of the lower dose group and 1.3% (n=2) of the placebo group used psychotherapy	(1) Usual group milieu or individual therapies in inpatient unit, biperiden hydrochloride for EPS (2) Supportive psychotherapy weekly		Benzotropine mesylate for EPS	Continued previously prescribed BZDs, antidepressants and mood stabilisers
Setting	Inpatients	(1) Outpatient/community (2) Outpatients (3) Outpatients (4) Symptomatic volunteers	Inpatients	Symptomatic volunteers	Outpatients	Outpatients
Length of treatment	5 weeks	(1) (2) (3) 12 weeks (2) 24 weeks	5 weeks	8 weeks	(1) 12 weeks (2) 8 weeks	12 weeks
Length of follow-up	None	None	None	18 months	None	None
Notes		(2) 3-armed trial (4) Very high attrition rate			Excluded: high proportion with no primary diagnosis of	

					BPD	

* efficacy data not extractable
** not licensed in the UK for any indication

There were few data that could be combined in meta-analysis in order to evaluate antipsychotics as a class, apart from on depression outcomes where there was considerable heterogeneity. A sensitivity analysis was undertaken removing one study (SOLOFF1993). See Table 62.

Table 62 Summary evidence profile for antipsychotics versus placebo

Symptom	**Aggression**	**Depression**	**Mental distress**	**Self-harm**	**Suicidality**	**BPD symptomatology**	**Leaving treatment early**	**Leaving treatment early due to side effects**	**N reporting side effects**
Clinician-rated effect size	SMD = 0.04 (-0.12, 0.2)	SMD (random effects) = -0.68 (-1.21, -0.15)	SMD (random effects) = -0.12 (-0.42, 0.18)	RD = 0.01 (-0.02, 0.04) 5% vs 3%	SMD = -0.26 (-0.43, -0.1)*	SMD = -0.15 (-0.31, 0.01)*	RD (random effects) = 0.01 (-0.08, 0.09) 39% vs 38%	RD (random effects)= 0 (-0.04, 0.04) 7% vs 9%	RD (random effects) = 0.02 (-0.03, 0.07) 49% vs 36%
Quality of evidence	Moderate	Low	Very low	High	Moderate	Moderate	Very low	Very low	Very low
Number of studies/participants	(K = 2; n=585)	(K = 3; n=168)	(K = 3; n=615)	(K = 2; n=608)	(K = 2; n=586)	(K = 2; n=596)	(K = 6; n=945)	(K = 7; n=1011)	(K = 5; n=666)
Forest plot	Pharm 0.3.01	Pharm 06.04	Pharm 01.11	Pharm 12.01	Pharm 12.02	Pharm 14.01	Pharm 15.03	Pharm 16.03	Pharm 17.03
Self-rated effect size		SMD = -0.41 (-0.77, -0.04)							
Quality of evidence		Moderate							
Number of studies/participants		(K = 2; n=116)							
Forest plot		Pharm 07.04							

* based on skewed data

Since there were few data which could be combined the individual drugs are considered separately.

6.3.4 Olanzapine versus placebo

Bogenschutz2004 – this 12-week study of 40 patients (66% women) compared olanzapine with placebo. The author used a scale which they had developed as the main outcome (CGI-BPD) based on the 9 DSM-IV criteria and the CGI. Data were not extractable because means were given in graphs. Also, the scale does not appear to have been validated. However, the authors concluded that olanzapine was more effective than placebo, although weight gain was significantly greater.

Eli Lilly2006 (#6253) – this 12-week 3-armed study of 451 patients (xx% women) compared olanzapine (at 2.5 mg and 5 mg to 10 mg) with placebo. The study continued with an open-label phase from which data were not extracted. At the time it was considered by the GDG, the study was unpublished and data were supplied specifically for the development of the guideline. Other than on weight change, where those on the higher dose gained more weight than those on the lower dose, there was little or no difference between the outcomes between the two doses (see Forest plots 23.1 and 23.2 in Appendix 17). Therefore, data were combined for dichotomous variables and, for continuous variables, data from the higher dose group were used since the lower dose is not usually considered a therapeutic dose.

Schultz2008 – this 12-week study of 314 patients (71% women) compared olanzapine with placebo. The study continued with an open-label phase from which data were not extracted. At the time it was considered by the GDG, the study was unpublished and data were supplied specifically for the development of the guideline. The study reported an average weight gain of 2.86 kg in those taking olanzapine and a mean weight loss of 0.37 kg for those on placebo. The difference was reported as statistically significant ($p < 0.001$).

Zanarini2001 – this is a 24-week placebo-controlled trial of olanzapine in 28 women with borderline personality disorder. The study suffered a very high attrition rate (58% vs 89%). However, the authors reported that most of the participants who left treatment early did so in the last month of the trial. Endpoint data were not extracted and monthly data sought from the study authors.

There were no extractable efficacy data. There was moderate quality evidence that those taking olanzapine gained an average of 2kg in weight which seems low compared with clinical experience. See Table 63 and Table 64.

Table 63 Summary evidence profile for olanzapine versus placebo (efficacy and self-harm/suicidality data)

Symptom	Aggression	Anger	Depression	Mental distress	Self-harm	Suicidality	BPD symptomatology

Clinician-rated effect size	SMD = 0.04 (-0.12, 0.2)	SMD = -0.18 (-0.4, 0.04)		SMD (random effects) = -0.21 (-0.53, 0.1)	RD = 0.00 (-0.03, 0.03) 5% vs 3%	SMD = -0.26 (-0.43, -0.1)*	SMD = -0.15 (-0.31, 0.01)*
Quality of evidence	Moderate	Moderate		Very low	High	Moderate	Moderate
Number of studies/participants	(K = 2; n=585)	(K = 1; n=314)		(K = 2; n=557)	(K = 2; n=608)	(K = 2; n=586)	(K = 2; n=596)
Forest plot	Pharm 03.01	Pharm 04.02		Pharm 11.01	Pharm 12.01	Pharm 12.02	Pharm 14.01
Self-rated effect size			SMD = 0.45 (-0.23, 1.13)				
Quality of evidence			Very low				
Number of studies/participants			(K = 1; n=34)				
Forest plot			Pharm 07.05				

* skewed data

Table 64 Summary evidence profile for olanzapine versus placebo (tolerability and acceptability data)

Symptom	**Leaving treatment early**	**Leaving treatment early due to side effects**	**N reporting side effects**	**Weight**
Clinician-rated effect size	RD (random effects) = -0.01 (-0.16, 0.14) 39% vs 40%	RD (random effects) = 0.01 (-0.09, 0.1) 8% vs 11%	RD (random effects) = 0.1 (-0.05, 0.25) 64% vs 54%	WMD = 2.96 (2.37, 3.55)
Quality of evidence	Very low	Very low	Very low	Moderate
Number of studies/participants	(K = 4; n=833)	(K = 4; n=833)	(K = 2; n=488)	(K = 4; n=668)
Forest plot	Pharm 15.03	Pharm 16.03	Pharm 17.03	Pharm 18.02

Comment

There is little evidence that olanzapine is efficacious in the treatment of people with borderline personality disorder. People taking olanzapine also tend to experience weight gain compared with those taking placebo.

6.3.5 Haloperidol versus placebo

Soloff1989 – this is a three-arm 5-week placebo-controlled trial comparing amitriptyline (mean 149.1 mg) and haloperidol (mean 4.8 mg) in 90 patients (80%) with borderline and/or schizotypal personality disorder. Patients began the study as inpatients. Several publications were produced from the study, which makes some of the data unclear. For example, the number leaving the study early is not clear. The final report does not report those leaving early apart from those dropping out in the first two weeks, whilst an interim report on the first 64 patients details dropouts.

The study reports many outcomes which appear to be measuring similar aspects of functioning. Therefore for depression, the HRSD-24 and BDI were extracted, but not the relevant SCL-90 subscales. For anxiety/hostility, the SCL-90 hostility subscale but not the relevant IMPS subscales or BDHI. For cognitive/schizotypal functioning, the IMPS total score, but not the relevant subscales on either the IMPS or SCL-90. For impulsive/behavioural functioning, the Barrett impulsiveness scale was extracted but not the Ward scale (this was developed for the study) or a self-report test of impulse control.

Haloperidol was more effective than placebo on global functioning, depression, hostility, schizotypal symptoms, and impulsive behaviour. Amitriptyline was more effective on depression. They found no significant interactions based on borderline subtype (BPD or schizotypal-borderline) on any outcome measure.

Soloff1993 - this is a three-arm 5-week placebo-controlled trial comparing haloperidol (mean dose 3.93 mg) and phenelzine in 108 patients (76%) with borderline and/or schizotypal personality disorder. Patients began the study as inpatients. It also has a 16-week continuation period. The numbers leaving treatment early are unclear and the study is too old to contact the study authors. The study authors reported superior efficacy for phenelzine over haloperidol and placebo. They were unable to replicate their earlier results for haloperidol.

Haloperidol showed an effect on only self-rated depression and hostility symptoms. See Table 65.

Table 65 Summary evidence profile for haloperidol versus placebo

Symptom	Depression	Global functioning	Hostility	Impulsivity	Mental distress	N reporting side effects
Clinician-rated effect size	SMD = -0.05 (-0.42, 0.32)*	SMD = -0.31 (-0.83, 0.21)	SMD = -0.18 (-0.69, 0.34)	SMD = 0.07 (-0.3, 0.43)		RD = 0 (-0.04, 0.04) 0% vs 0%
Quality of evidence	Low	Very low	Very low	Very low		Very low

Number of studies/participants	(K = 2; n=114)	(K = 1; n=58)	(K = 1; n=58)	(K = 2; n=114)		(K = 2; n=126)
Forest plot	Pharm 06.03	Pharm 08.01	Pharm 09.01	Pharm 10.01		Pharm 17.03
Self-rated effect size	SMD = -0.09 (-0.46, 0.28)*		SMD = -0.46 (-0.84, -0.09)*	SMD = 0.18 (-0.34, 0.7)	SMD = 0.23 (-0.28, 0.75)*	
Quality of evidence	Very low		Low	Moderate	Very low	
Number of studies/participants	(K = 2; n=114)		(K = 2; n=114)	(K = 1; n=58)	(K = 1; n=58)	
Forest plot	Pharm 07.03		Pharm 09.02	Pharm 10.02	Pharm 11.01	

* based on skewed data

Comment

There is some evidence of the effectiveness of haloperidol in reducing symptoms of depression, hostility and impulsivity in people with borderline personality disorder when given in lower doses than for psychotic disorders. However, this is based on a small number of participants. Haloperidol is known to be associated with extrapyramidal symptoms (EPS) and can prolong the cardiac QTc interval. Prescribers should monitor for EPS and follow the SPC recommendations with respect to cardiac monitoring.

6.3.6 Aripiprazole versus placebo

Nickel2006 – this is an 8-week placebo-controlled trial of aripiprazole in 52 patients aged 16 and over (83% women) with an 18-month naturalistic follow-up. During the follow-up period those initially taking aripiprazole continued treatment, and those in the placebo group started treatment, either with aripiprazole or another medication. The follow-up data are therefore difficult to interpret. In addition, the study authors declared in the published paper that no funding had been received for the study. See above for why we did not include this and other studies by this research group when drawing up our overall conclusions about the dataset. See Table 66.

Table 66 Summary evidence profile for aripiprazole versus placebo

Symptom	Anger	Anxiety	Depression	Hostility	Mental distress	Leaving treatment early	Leaving treatment early due to side effects	N reporting side effects
Clinician-rated effect size	SMD = -1.78 (-2.43, -1.13)	SMD = -0.73 (-1.29, -0.17)	SMD = -1.25 (-1.85, -0.65)			RD = 0 (-0.07, 0.07) 0% vs 0%	RD = 0 (-0.07, 0.07) 0% vs 0%	RD = 0 (-0.07, 0.07) 0% vs 0%
Quality of evidence	Moderate	Moderate	Moderate			Very low	Very low	Very low

Number of studies /participants	(K = 1; n=52)	(K = 1; n=52)	(K = 1; n=52)			(K = 1; n=52)	(K = 1; n=52)	(K = 1; n=52)
Forest plot	Pharm 04.01	Pharm 05.01	Pharm 06.03			Pharm 15.04	Pharm 16.03	Pharm 17.03
Self-rated effect size			SMD = -1.96 (-2.63, -1.29)	SMD = -1.14 (-1.73, -0.55)	SMD = -1.27 (-1.87, -0.67)			
Quality of evidence			Moderate	Moderate	Moderate			
Number of studies /participants			(K = 1; n=52)	(K = 1; n=52)	(K = 1; n=52)			
Forest plot			Pharm 07.03	Pharm 09.02	Pharm 11.01			

Comment

There is some evidence from one trial (n = 52) of the effectiveness of aripiprazole in the treatment of anger, anxiety, depression and hostility symptoms in symptomatic volunteers with a diagnosis of borderline personality disorder. However, these studies were undertaken by Nickel and associates.

Treatment with antipsychotics can lead to side effects such as extra pyramidal symptoms, for which patients need to be monitored. However, there is insufficient evidence on which to base a recommendation for the use of aripiprazole in the management of borderline personality disorder.

6.3.7 Ziprasidone versus placebo

Pascual2008 – this 12-week study of 60 patients (82% women) compared ziprasidone with placebo. The trial did not show a difference between ziprasidone and placebo on any of the reported outcome measures. [New trials to add:

Pascual 2008 Interesting study with no benefits of ziprasidone: RESULTS: Analysis of variance indicated no statistically significant differences between ziprasidone and placebo in the CGI-BPD. Nor were significant differences observed between groups in depressive, anxiety, psychotic, or impulsive symptoms. The mean daily dose of ziprasidone was 84.1 mg/day (SD = 54.8; range, 40-200). The drug was seen to be safe, and no serious adverse effects were observed. CONCLUSION: This trial failed to show a significant effect of ziprasidone in patients with borderline personality disorder.(PT)
See Table 67.

Table 67 Summary evidence profile for ziprasidone versus placebo

Symptom	Anxiety	Depression	Impulsiveness	Leaving treatment early
Clinician-rated effect size	SMD = -0.11 (-0.62, 0.39)	SMD = -0.31 (-0.82, 0.2)	SMD = -0.06 (-0.57, 0.44)	RD = 0.1 (-0.15, 0.35) 57% vs47%
Quality of evidence	Very low	Very low	Very low	Very low
Number of studies /participants	(K = 1; n=60)	(K = 1; n=60)	(K = 1; n=60)	(K = 1; n=60)
Forest plot	Pharm 05.01	Pharm 06.04	Pharm 10.01	Pharm 15.03
Self-rated effect size		WMD = -4.4 (-11.16, 2.36)		
Quality of evidence		Very low		
Number of studies /participants		(K = 1; n=60)		
Forest plot		Pharm 07.03		

6.3.8 Head-to-head trials

Table 68 Study characteristics of trials of antipsychotics versus another active drug

	Thiothixene versus haloperidol	*Loxapine versus chlorpromazine*	*Olanzapine versus fluoxetine*	*Amitriptyline versus haloperidol*
No. trials (Total participants)	1 RCT (52)	1 RCT (80)	1 RCT (452)	1 RCT (90)
Study IDs	SERBAN1984 [excluded]	LEONE1982	ZANARINI2004	SOLOFF1989
N/% female	52/31	80/55	45/100	90/76
Mean age (or range if not given)	32	31	23	25
Axis I/II disorders	27% SPD primary diagnosis; 31% comorbid SPD	None	None	39% BDP/4% SPD/57% mixed
Additional intervention		Fluorazepam and chloral hydrate as sedatives	None	(1) Usual group milieu or individual therapies in inpatient unit, biperiden hydrochloride for EPS
Setting	Outpatients	Outpatients	Outpatients	Inpatients
Length of treatment	8 weeks	6 weeks	8 weeks	5 weeks
Length of follow-up	None	None	None	None
Notes	Excluded: high proportion with no primary diagnosis of BPD	Efficacy outcomes not extractable		

Loxapine versus chlorpromazine

Leone1982 – this is a 6-week trial comparing loxapine with chlorpromazine in 80 outpatients (55% women). Efficacy data were not extractable, but the authors report a statistically significant advantage for loxapine on depression symptoms. No other aspect of functioning was significantly improved for either treatment. The summary evidence profile is in Table 69.

Table 69 Summary evidence profile for loxapine versus chlorpromazine

Outcome	**Efficacy data**	**Leaving treatment early**	**Leaving treatment early due to side effects**	**N reporting side effects**
Risk difference	Not extractable	RD = -0.03 (-0.18, 0.13) 13% vs 15%	RD = -0.05 (-0.14, 0.04) 3% vs 8%	RD = -0.08 (-0.28, 0.13) 28% vs 35%
Overall evidence quality		Very low	Very low	Very low
Number of studies/number of participants		(K = 1; n=80)	(K = 1; n=80)	(K = 1; n=80)
Forest plot		Pharm 15.05	Pharm 16.04	Pharm 17.02

Comment

There is very little evidence comparing one antipsychotic with another, and no evidence for superior efficacy of any one antipsychotic in the management of borderline personality disorder.

Low-dose thiothixene versus haloperidol

Haloperidol versus phenelzine

Soloff1993 - this is a three-arm 5-week placebo-controlled trial comparing haloperidol and phenelzine in 108 patients (76%) with borderline and/or schizotypal personality disorder. Patients began the study as inpatients. It also has a 16-week continuation period. The numbers leaving treatment early are unclear and the study is too old to contact the study authors. The study authors reported superior efficacy for phenelzine over haloperidol and placebo. They were unable to replicate their earlier results for haloperidol.

Olanzapine versus fluoxetine

Zanarini2004 – this is an 8-week 3-arm trial of olanzapine, fluoxetine and combination olanzapine-fluoxetine (see below) in 45 women with borderline personality disorder. The authors report that olanzapine and combination treatment significantly reduced both depression and aggression, whilst fluoxetine greatly reduced impulsive aggression and depression with more rapid treatment effects in the combination and olanzapine arms. This may reflect phamacodynamic rather than effects specific in borderline personality disorder. The results are reported in antidepressant section below.

6.3.9 Combination treatment trials

Table 70 Study characteristics of trials of combination treatment

	Olanzapine versus olanzapine + fluoxetine
No. trials (Total participants)	1 RCT (452)
Study IDs	ZANARINI2004
N/% female	45/100
Mean age (or range if not given)	23
Axis I/II disorders	None
Additional intervention	None
Setting	Outpatients
Length of treatment	8 weeks
Length of follow-up	None
Notes	

Zanarini2004 – this is an 8-week 3-arm trial of olanzapine, fluoxetine and combination olanzapine-fluoxetine in 45 women with borderline personality disorder. Evidence for efficacy, and most acceptability and tolerability outcomes was very low quality. There was evidence that those taking

combined treatment were on average 1.5 kg lighter than those taking olanzapine alone. The summary evidence profile is in Table 71.

Table 71 Summary evidence profile for olanzapine versus olanzapine + fluoxetine (harm data are for olanzapine + fluoxetine versus olanzapine)

Outcome	Aggression	Depression	Leaving treatment early	Leaving treatment early due to side effects	N reporting side effects	Weight
Clinician-rated effect size	SMD = 0.02 (-0.71, 0.76)*	SMD = 0.39 (-0.35, 1.13)*	RD = 0.13 (-0.06, 0.33) 13% vs 0%	RD = 0.07 (-0.1, 0.23) 7% vs 0%	RD = -0.2 (-0.42, 0.02) 80% vs 100%	WMD = -1.5 (-2.91, -0.09)
Quality of evidence	Very low	Very low	Very low	Very low	Very low	Moderate
Number of studies/participants	(K = 1; n=29)	(K = 1; n=29)	(K = 1; n=31)	(K = 1; n=31)	(K = 1; n=31)	(K = 1; n=29)
Forest plot	Pharm 03.01	Pharm 06.08	Pharm 16.04	Pharm 17.02	Pharm 17.05	Pharm 18.02

* based on skewed data

Comment

There is one small trial comparing combination treatment (fluoxetine and olanzapine) with monotherapy. This did not demonstrate an advantage for combined fluoxetine-olanzapine treatment over treatment with olanzapine alone.

6.4 Antidepressants

6.4.1 Introduction

Antidepressants are primarily used to treat depression although some are also licensed for anxiety spectrum disorders such as panic disorder, obsessive compulsive disorder and post-traumatic stress disorder. A small number are licensed for the treatment of neuropathic pain and nocturnal enuresis in children. Depression and symptoms of depression are common in people with borderline personality disorder.

The mode of action of most antidepressants is via inhibition of mono-amine re-uptake transporters which results in increased neurotransmission in serotonin and/or nor-adrenergic pathways. Mono-amine oxidase inhibitors such as phenelzine inhibit the metabolism of several monoamines including serotonin.

There is some evidence that low serotonin levels may be associated with aggressive behaviour and impulsivity as well as low mood (Young & Leyton, 2002). Thus it has been suggested that serotonergic antidepressants, such as SSRIs and amitriptyline, may ameliorate aggression and impulsivity.

Treatment with antidepressants, most of which have some effect on serotonin pathways, has been linked with an increase in suicidal thoughts and acts (Friedman & Leon, 2007), with young people being most at risk. Although the overall risk is very low, it is not known if people with pre-existing impulse control problems, such as those with borderline personality disorder, are particularly vulnerable.

6.4.2 Placebo-controlled trials

Three placebo-controlled trials met inclusion criteria with one being excluded (see below).

Table 72 Study characteristics of placebo-controlled trials of antidepressants

	Amitriptyline	*Fluvoxamine*	*Phenelzine*
No. trials (Total participants)	1 RCT (90)	1 RCT (38)	1 RCT (72)
Study IDs	SOLOFF1989	RHINNE2002	SOLOFF1993
N/% female	90/76	38/100	72*/76
Mean age (or range if not given)	25	29	27
Axis I/II disorders	39% BDP/4% SPD/57% mixed	[to do]	61% comorbid SPD
Additional intervention	Usual group milieu or individual therapies in inpatient unit, biperiden hydrochloride for EPS	None	None
Setting	Inpatient	Mixed sample	Inpatients discharged after 2 weeks
Length of treatment	5 weeks	6 weeks	5 weeks
Length of follow-up	None	None	16-week continuation phase
Notes			* Ns for phenelzine and placebo groups only (3-arm trial)

There were sufficient data to combine the placebo-controlled on only one outcome measure, self-rated depression scores. This showed that antidepressants were more effective than placebo in reducing depression symptoms. See Table 73.

Table 73 Summary evidence profile for antidepressants versus placebo

Symptom	**Depression**	**Leaving treatment early due to side effects**	**N reporting side effects**
Clinician-rated effect size		RD = 0.01 (-0.03, 0.06) 1% vs 0%	RD = 0.08 (0.01, 0.15) 21% vs 13%
Quality of evidence		Very low	Very low
Number of studies/participants		(K = 3; n=167)	(K = 3; n=167)

Forest plot		Pharm 16.01	Pharm 17.01
Self-rated effect size	SMD = -0.46 (-0.82, -0.09)*		
Quality of evidence	Low		
Number of studies/participants	(K = 2; n=119)		
Forest plot	Pharm 07.01		

* based on skewed data

Amitriptyline (TCA)

Soloff1989 – this is a three-arm 5-week placebo-controlled trial comparing amitriptyline and haloperidol in 90 patients (80%) with borderline and/or schizotypal personality disorder. Patients began the study as inpatients and were discharged after 2 weeks. Several publications were produced from the study, which makes some of the data unclear, for example, the number leaving the study early. The final report does not report those leaving early apart from those dropping out in the first two weeks, whilst an interim report on the first 64 patients details dropouts.

The study reports many outcomes which appear to be measuring similar aspects of functioning. Therefore for depression, the HRSD-24 and BDI were extracted, but not the relevant SCL-90 subscales. For anxiety/hostility, the SCL-90 hostility subscale but not the relevant IMPS subscales or BDHI. For cognitive/schizotypal functioning, the IMPS total score, but not the relevant subscales on either the IMPS or SCL-90. For impulsive/behavioural functioning, the Barrett impulsiveness scale was extracted but not the Ward scale (this was developed for the study) or a self-report test of impulse control.

Amitriptyline was more effective than placebo in reducing depression symptoms. The authors reported that they found no significant interactions based on borderline subtype (BPD or schizotypal-borderline) on any outcome measure. See Table 74.

Table 74 Summary evidence profile for amitriptyline versus placebo

Symptom	**Depression**	**Hostility**	**Impulsivity**	**Leaving treatment early due to side effects**	**N reporting side effects**
Clinician-rated effect size	SMD = -0.53 (-1.06, 0)*		SMD = -0.12 (-0.64, 0.4)	RD = 0 (-0.07, 0.07) 0% vs 0%	RD = 0 (-0.07, 0.07) 0% vs 0%
Quality of evidence	Moderate		Very low	Very low	Very low
Number of studies/participants	(K = 1; n=57)		(K = 1; n=57)	(K = 1; n=57)	(K = 1; n=57)
Forest plot	Pharm 06.01		Pharm 10.01	Pharm 16.01	Pharm 17.01

Self-rated effect size		SMD = -0.3 (-0.82, 0.22)			
Quality of evidence		Very low			
Number of studies/participants		(K = 1; n=58)			
Forest plot		Pharm 09.02			

* based on skewed data

Comment

Amitriptyline is effective in the treatment of depressive symptoms in people with a diagnosis of borderline personality disorder,although but it is not clear if this effect is reated to comorbid depression or the BPD diagnosis alone. Amitriptyline has side effects such as dry mouth which some patients may find hard to tolerate. It should also be noted that amitripytline (and most other TCAs) are considerably more toxic in overdose than other antidepressants, notably SSRIs (Buckley & McManus, 2002). Lofepramine and nortriptyline [mirtazepine is safer than nort] are safer TCAs, and SSRIs are safer still (ibid.). However, there is no evidence for the efficacy of these drugs in people with borderline personality disorder. People taking SSRIs tend to report fewer side effects than those taking TCAs (NCCMH, 2005), but the risk of self-harm in people with borderline personality disorder is so great that the risks of toxicity after overdose are such that in most instances prescription of amitriptyline should be avoided.

Fluvoxamine (SSRI)

Rinne2002 – this is a 6-week placebo-controlled trial of fluvoxamine in 38 women with a diagnosis of borderline personality disorder. It was followed by a 6-week half-cross-over phase and then 12 weeks of open-label treatment. A large proportion of the participants had a comorbid axis I disorder. Only data for the first 6 weeks double-blind treatment were extracted. The study reported efficacy outcomes that were excluded by the GDG so no efficacy data were extracted. See Table 75.

Table 75 Summary evidence profile for fluvoxamine versus placebo

Symptom	Efficacy data	Leaving treatment early for any reason	Leaving treatment early due to side effects	N reporting side effects
Clinician-rated effect size	None extractable	RD = -0.06 (-0.23, 0.11) 5% vs 11%	RD = 0.05 (-0.08, 0.18) 5% vs 0%	RD = 0.34 (0.08, 0.61) 90% vs 56%
Quality of evidence		Very low	Very low	Very low
Number of studies/participants		(K = 1; n=38)	(K = 1; n=38)	(K = 1; n=38)

Forest plot		Pharm 15.01	Pharm 16.01	Pharm 17.01

Comment

There is one small trial of an SSRI which did not report extractable efficacy data.

Phenelzine (MAOI)

Soloff1993 - this is a three-arm 5-week placebo-controlled trial comparing haloperidol and phenelzine in 108 patients (76%) with borderline and/or schizotypal personality disorder. Patients began the study as inpatients. It also has a 16-week continuation period. The numbers leaving treatment early are unclear and the study is too old to contact the study authors. There was evidence for effectiveness of phenelzine on hostility symptoms, but not on other symptoms. See Table 76.

Table 76 Summary evidence profile for phenelzine versus placebo

Symptom	Depression	Global functioning	Hostility	Impulsivity	Leaving treatment early due to side effects	N reporting side effects
Clinician-rated effect size	SMD = -0.18 (-0.68, 0.32)*	SMD = 0.14 (-0.36, 0.64)	SMD = -0.64 (-1.15, -0.13)*	SMD = 0 (-0.5, 0.5)	RD = 0 (-0.05, 0.05) 0% vs 0%	RD = 0 (-0.05, 0.05) 0% vs 0%
Quality of evidence	Very low	Very low	Moderate	Very low	Very low	Moderate
Number of studies/participants	(K = 1; n=62)	(K = 1; n=62)	(K = 1; n=62)	(K = 1; n=62)	(K = 1; n=72)	(K = 1; n=72)
Forest plot	Pharm 07.01	Pharm 08.01	Pharm 09.01	Pharm 10.01	Pharm 16.01	Pharm 17.01

Comment

There is some evidence of the efficacy of phenelzine in the treatment of hostility symptoms in people with borderline personality disorder. However, there was no evidence of efficacy in other symptoms.

6.4.3 Trials comparing active treatments

Olanzapine versus fluoxetine versus fluoxetine plus olanzapine

Zanarini2004 – this is an 8-week 3-arm trial of olanzapine, fluoxetine and combination olanzapine-fluoxetine (see below) in 45 women (symptomatic volunteers) with borderline personality disorder and comorbid axis I disorders, primarily depression and anxiety disorders).

There was moderate quality evidence that fluoxetine was more effective than olanzapine in reducing depression symptoms. See Table 77 for the summary evidence profile.

Table 77 Summary evidence table for olanzapine versus fluoxetine

Symptom	**Aggression**	**Depression**	**Leaving treatment early**	**Leaving treatment early due to side effects**	**N reporting side effects**	**Weight**
Clinician-rated effect size	SMD = -0.2 (-0.93, 0.53)*	SMD = 0.73 (-0.03, 1.49)*	RD = 0.07 (-0.1, 0.24) 7% vs 0%	RD = 0.07 (-0.1, 0.24) 7% vs 0%	RD = -0.43 (-0.69, -0.17) 57% vs 100%	WMD = -2.5 (-4.29, -0.72)
Quality of evidence	Very low	Moderate	Very low	Very low	Very low	Moderate
Number of studies/participants	(K = 1; n=29)	(K = 1; n=29)	(K = 1; n=30)	(K = 1; n=30)	(K = 1; n=30)	(K = 1; n=29)
Number of studies/participants	Pharm 03.01	Pharm 06.08	Pharm 15.02	Pharm 16.02	Pharm 17.02	Pharm 18.01

* based on skewed data

Comment

One small trial compared olanzapine with fluoxetine finding increased efficacy for fluoxetine in depression symptoms. Olanzapine has a propensity to lead to weight gain. There is no other data comparing an antidepressant with another active treatment.

Fluoxetine versus fluoxetine plus olanzapine

Table 78 Study characteristics of fluoxetine versus fluoxetine plus olanzapine

	Fluoxetine + olanzapine
No. trials (Total participants)	1 RCT (45)
Study IDs	ZANARINI2004
N/% female	45/100
Mean age (or range if not given)	23
Axis I/II disorders	[to do]
Comparisons	Fluoxetine vs olanzapine vs combination
Setting	Symptomatic volunteers
Length of treatment	8 weeks
Length of follow-up	None
Notes	

There was no effect of symptoms of either treatment, and some evidence of increased weight in participants who tool combination treatment. See Table 79.

Table 79 Summary evidence table for olanzapine + fluoxetine versus fluoxetine (harm data is fluoxetine vs olanzapine + fluoxetine)

Symptom	**Aggression**	**Depression**	**Leaving treatment**	**Leaving treatment**	**N reporting**	**Weight**

			early	early due to side effects	side effects	
Clinician-rated effect size	SMD = -0.2 (-0.93, 0.53)*	SMD = -0.41 (-1.19, 0.37)	RD = -0.06 (-0.3, 0.18) 15% vs 21%	RD = 0.07 (-0.1, 0.24) 7% vs 0%	RD = -0.23 (-0.56, 0.1) 57% vs 80%	WMD = 1 (-0.39, 2.39)
Quality of evidence	Very low	Very low	Very low	Very low	Very low	Moderate
Number of studies/participants	(K = 1; n=29)	(K = 1; n=26)	(K = 1; n=39)	(K = 1; n=29)	(K = 1; n=29)	(K = 1; n=26)
Number of studies/participants	Pharm 03.01	Pharm 06.08	Pharm15.02	Pharm 16.02	Pharm 17.02	Pharm 18.01

* based on skewed data

Comment

One small trial compared treatment with an antidepressant (fluoxetine) with combined olanzapine-fluoxetine. There was no evidence of any advantage for either treatment. Olanzapine has a propensity to lead to weight gain.

6.4.4 Comment on antidepressants

There are 3 placebo-controlled trials of antidepressants in people with borderline personality disorder, each of a drug from a different class of drug (TCA, SSRI, MAOI). There was some efficacy in reducing individual symptoms, notably depression.

There was one trial comparing fluoxetine with olanzapine and with fluoxetine plus olanzapine. There was also no evidence of increased efficacy of either the antidepressant over the antipsychotic or of the antidepressant over combination treatment.

There is insufficient evidence on which to base a recommendation for antidepressants in the general treatment of borderline personality disorder, although there is evidence that they may be helpful in reducing symptoms of depression where these are pre-existing. These effects may be the consequence of treating comorbid depression disorder, although dissecting drug effects by diagnosis in this way may not be safe.

6.5 Omega-3 fatty acids

6.5.1 Introduction

The omega-3 fatty acids, eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) have important biological functions in the CNS; their presence is essential to maintaining the composition of cell membranes and the consequent normal neuronal activity (Fenton et al, 2000).

Reduced levels of omega-3 fatty acids have been found in the red blood cell membranes of people with a number of psychiatric disorders and this led to

the theory that omega-3 fatty acid supplements may be beneficial in restoring mental health (Freeman, 2000).

Omega-3 fatty acids have been used to some effect in people with major depressive disorder and bipolar disorder although there are few high-quality randomised controlled trials (Freeman et al., 2006). Several RCTs have been conducted in people with schizophrenia with mixed results (eg Peet et al, 2001; Fenton et al, 2001). Omega-3 fatty acids may have moderating modulating effects on aggression and impulsivity (Garland & Hallahan, 2006).

6.5.2 Omega-3 fatty acids (fish oil) compared with placebo

HALLAHAN2007 – this is a 12-week placebo-controlled trial of omega-3 fatty acid in 49 people with recurrent self-harm. Enrolment into the trial followed presentation at an emergency department for a self-harm episode. Just over 81% had a diagnosis of borderline personality disorder at baseline. The mean BDI depression scores at baseline were in the severe range for both groups. However, there was a statistically and clinically significant difference between the treatment and placebo groups at baseline and therefore baseline scores were used as a covariate. In addition, 53% of participants were on psychotropic medication at baseline; all were taking antidepressants with many also taking benzodiazepines. The authors note that the study was not powered to detect differences in self-harm rates.

Zanarini2003 – this is an 8-week placebo-controlled trial of omega-3 fatty acid in 30 women with a diagnosis of borderline personality disorder. It was designed as a pilot study, although a larger trial is yet to be published. The study recruited via newspaper advertisements in Boston, US. Patients were excluded if they had a serious mental illness but the number with other axis I disorders is not reported.

Table 80 Study characteristics for placebo-controlled trials of omega-3 fatty acid

	Omega-3 fatty acid
No. trials (Total participants)	2 RCT (79)
Study IDs	HALLAHAN2007 ZANARINI2003
N/% female	(1) 49/65 (2) 30/100
Mean age (or range if not given)	(1) 30 (2) 26
Axis I/II disorders	(1) 82% BPD; severe depression at baseline (not diagnosed as MDD); recurrent self-harm (2) 100% BPD; mild depression symptoms at baseline (not diagnosed as MDD)
Additional intervention	(1) 53% on psychotropic medication (2) None
Setting	(1) A&E presentations following self-harm (2) Community
Length of treatment	8 weeks
Length of follow-up	None
Notes	

Treatment had some effect on aggression and depression symptoms, although the larger Hallahan2007 study carried more weight in the meta-analyses and found a larger effect on symptoms than the smaller Zanarini2003 study. Over half of the patients in this study were taking antidepressants. There was also some evidence of increased self-harm/suicidality amongst those in the treatment group. See Table 81.

Table 81 Summary evidence profile for omega-3 fatty acids versus placebo

Symptom	**Aggression**	**Depression**	**Self-harm (dichotomous data)**	**Leaving treatment early**	**Leaving treatment early due to side effects**	**N reporting side effects**
Clinician-rated effect size	SMD = -0.52 (-1.02, -0.01)*	SMD = -0.52 (-1.02, -0.01)	RD = 0.01 (-0.19, 0.21) 23% vs 27%	RD = -0.08 (-0.24, 0.08) 12% vs 22%	RD = -0.05 (-0.15, 0.05) 0% vs 5%	Significant heterogeneity: use individual study results
Quality of evidence	Moderate	Moderate	Very low	Very low	Very low	
Number of studies/participants	(K = 2; n=66)	(K = 2; n=66)	(K = 2; n=69)	(K = 2; n=79)	(K = 2; n=79)	
Forest plot	Pharm 03.01	Pharm 06.07	Pharm 12.01	Pharm 15.07	Pharm 16.06	Pharm 17.06
Self-rated effect size		SMD = -0.96 (-1.63, -0.3)				
Quality of evidence		Moderate				
Number of studies/participants		(K = 1; n=39)				
Forest plot		Pharm 07.08				

* based on skewed data

Comment

There are two small trials of omega-3 fatty acids (fish oils) in the treatment of people with borderline personality disorder. There is some evidence of efficacy in some symptoms. In addition, one of the studies has considerable confounding factors and is therefore hard to interpret. There is therefore insufficient evidence on which to base a recommendation for the use of omega-3 fatty acids in the treatment of borderline personality disorder.

6.6 Naloxone

6.6.1 Introduction

Naloxone is an opioid antagonist that is licensed for the management of opioid overdose. It has a short half-life and can only be administered by SC, IM or IV injection.

As well as blocking the effects of opioid drugs, naloxone also blocks the effects of naturally occurring endorphins and enkephalins. It is thought that these substances may be involved in the re-inforcement of self-harming behaviour. It has therefore been suggested that naloxone may reduce self-harming behaviour. It may also reduce dissociative symptoms which could possibly be mediated through opiate pathways.

6.6.2 Naloxone versus placebo

Philipsen2004 – this is placebo-controlled cross-over trial of naloxone in 9 women with a diagnosis of borderline personality disorder suffering from moderate to severe dissociative symptoms, with most (n=8) experiencing concomitant flashbacks. Patients were given naloxone when they were in an acute dissociative state. Pre-crossover data are not given and therefore the trial data have not been input. The study authors report that although dissociative symptoms decreased after administration of naloxone or placebo, there was no advantage for the study drug.

Table 82 Study characteristics for placebo-controlled trials of naloxone

	Naloxone
No. trials (Total participants)	1 RCT (9)
Study IDs	PHILIPSEN2004
N/% female	9/100
Mean age (or range if not given)	35
Axis I/II disorders	56% PTSD; 33% ED; 11% OCD; 22% MDD; 22% social phobia; 22% specific phobia
Additional intervention	None
Setting	Inpatients (n=7); outpatients (n=2)
Length of treatment	N/A (2 injections while patients in dissociative state)
Length of follow-up	None
Notes	Cross-over trial; data not extractable

There were no extractable data from the trial. The GDG took the view that naloxone is not an acceptable treatment for people with borderline personality disorder since it has to be injected.

6.7 Effect of treatment on symptoms

6.7.1 Introduction

There are relatively few RCTs examining the efficacy of drug treatments in people with borderline personality disorder, and the data for the efficacy of individual drugs is correspondingly weak. However, several studies reported efficacy for individual symptoms, and so the data are examined by symptom. The symptoms reported are based on the outcomes used by the individual studies.

6.7.2 Placebo-controlled trials – overall effect on symptoms

Where there were sufficient data (at least 3 placebo-controlled trials reporting similar outcomes) trials of different active treatments were combined to show the effect on symptoms of pharmacological treatment.

There were insufficient data for the following symptoms: aggression, anxiety, global function, quality of life, self-harm/suicidality, service use, and severe psychopathology. However, there was an effect of treatment on symptoms of anger (clinician-rated) and depression (self-rated), but not on hostility. See Table 83.

Table 83 Summary evidence profile for the effect on symptoms of any pharmacological treatment versus placebo (where >= 3 studies available)

Symptom	Anger	Depression	Hostility	Impulsiveness	Mental distress
Clinician-rated	SMD = -1.97 (-2.41, -1.52)	SMD = -0.35 (-0.61, -0.08)	SMD = -0.37 (-0.56, -0.19)	SMD = 0.02 (-0.28, 0.32)	SMD (random effects) = -0.12 (-0.42, 0.18)*

Quality of evidence	High	Moderate	High	High	Very low
Number of studies/participants	(K = 3; n=121)	(K = 5; n=223)	(K = 5; n=480)	(K = 3; n=174)	(K = 3; n=615)
Forest plot	Pharm 01.03	Pharm 01.06	Pharm 01.09	Pharm 01.10	Pharm 01.11
Self-rated		SMD (random effects) = -0.72 (-1.06, -0.38)*			
Quality of evidence		Low			
Number of studies/participants		(K = 9; n=385)			
Forest plot		Pharm 01.07			

* based on skewed data

6.7.3 Aggression

Impulsive aggression is a core symptom of borderline personality disorder. It is associated with reduced serotonergic activity in the brain, and therefore drug treatments aim to target this. There are several aspects to aggression, including the subjective state of anger, readiness to react with anger, and tendency to direct anger outward.

The clinical-completed Modified Overt Aggression Scale was reported by several studies, although all reported different outcomes (mean total at endpoint, mean total change score at endpoint, mean total of the last 4 weeks of the trial, and the aggression subscale mean endpoint). One study also reported the Aggression Questionnaire which is a self-report scale. The trials were between 8 and 12 weeks long.

Four studies reported measures of aggression – see Table 84.

Table 84 Pharmacological studies reporting aggression outcomes

Study ID	*Comparison*	*Population*
ELI LILLY #6253	Olanzapoine vs placebo	Outpatients
SCHULTZ2008	Olanzapine vs placebo	Outpatients
HOLLANDER2001	divalproex vs placebo	Mixed sample
HOLLANDER2003	divalproex vs placebo	Outpatients
ZANARINI2003	omega-3 fatty acids vs placebo	Symptomatic volunteers
ZANARINI2004	olanzapine vs fluoxetine vs olanzapine + fluoxetine	Symptomatic volunteers with comorbid mood, substance use or anxiety disorders)

There were insufficient studies reporting similar outcomes to undertake an analysis of all active treatments versus placebo. In addition, all the reported data were skewed. The quality of evidence for the effectiveness of treatment on aggression symptoms was very low, and so no conclusions can be drawn. The summary evidence profile is in Table 85.

Table 85 Summary evidence profile for effectiveness of treatment for aggression symptoms

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot	
		Endpoint (clinician-rated)	**Endpoint (self-rated)**
Divalproex vs placebo	Outpatients; includes cluster B & intermittent explosive disorder;	SMD = -0.15 (-0.56, 0.27)* Very low (K = 1; n=91) Pharm 03.01	SMD = -0.54 (-1.89, 0.82)* Very low (K = 1; n=9) Pharm 03.02
Olanzapine vs fluoxetine	100% axis I disorders (mood, substance use, anxiety, eating disorders); symptomatic volunteers	SMD = -0.2 (-0.93, 0.53)* Very low (K = 1; n=29) Pharm 03.01	
Olanzapine vs fluoxetine + olanzapine (	100% axis I disorders (mood, substance use, anxiety, eating disorders); symptomatic volunteers	SMD = 0.02 (-0.71, 0.76)* Very low (K = 1; n=29) Pharm 03.01	
Fluoxetine vs fluoxetine + olanzapine	100% axis I (mood, substance use, anxiety, eating); symptomatic volunteers	SMD = -0.2 (-0.93, 0.53)* Very low (K = 1; n=29) Pharm 03.01	
Olanzapine vs placebo	Outpatients	SMD = 0.04 (-0.12, 0.2) Moderate (K = 2; n=585) Pharm 03.01	
Omega-3 fatty acids	Mild depression (no diagnosis)); symptomatic volunteers	SMD = -0.52 (-1.02, -0.01) * Low (K = 2; n=66) Pharm 03.01	

Notes: SMD = standardised mean difference (95% confidence intervals); K = number of studies; n = number of participants; very low = overall quality of evidence; * based on skewed data

Comment

There is no evidence for any drug of an effect of treatment on aggression symptoms in a range of settings.

6.7.4 Anger

The self-report STAXI was reported by several studies, either the individual subscales or the combined subscale total. Data from the state anger subscale were entered. One study also provided follow-up data based on naturalistic follow-up. No conclusions can be drawn from this since the placebo group took medication during the follow-up period and the data are not presented here. The trials were between 8 and 12 weeks long.

Four studies reported measures of anger – see Table 86.

Table 86 Pharmacological studies reporting anger outcomes

Study ID	*Comparison*	*Population*
NICKEL2004	topiramate vs placebo	Symptomatic volunteers
NICKEL2005	topiramate vs placebo	Symptomatic volunteers
NICKEL2006	aripiprazole vs placebo	Symptomatic volunteers
SCHULZ2008	Olanzapine vs placebo	Outpatients
TRITT2003	lamotrigine vs placebo	Symptomatic volunteers

Sufficient studies reporting similar outcomes were available to undertake an analysis of all active treatments versus placebo. This showed that there was high quality evidence that treatment with drugs reduces anger symptoms, with effective treatments including topiramate (moderate) and aripiprazole (moderate). Both studies were in symptomatic volunteers. No data were skewed. The summary evidence profile is in Table 87.

Table 87 Summary evidence profile for effectiveness of treatment for anger symptoms (all outcomes)

Comparison	**Population**	**Effect size/quality of evidence/number of studies-number of participants/forest plot**	
		Endpoint (clinician-rated)	**Follow-up (clinician-rated)**
Topiramate vs placebo	100% axis I (depression, anxiety, OCD, somatoform, eating, substance/alcohol misuse)); symptomatic volunteers	SMD (random effects) = -2.67 (-4.41, -0.94) Moderate (K = 2; n=71) Pharm 04.01	
Lamotrigine vs placebo	Symptomatic volunteers	SMD = -2.75 (-3.87, -1.62) Moderate (K = 1; n=27) Pharm 04.01	
Aripiprazole vs placebo	100% axis I (depression, anxiety, OCD, somatoform)); symptomatic volunteers	SMD = -1.78 (-2.43, -1.13) Moderate (K = 1; n=52) Pharm 04.01	12 months: SMD = -3.84 (-4.94, -2.74) 18 months: SMD = -3.66 (-4.73, -2.6) Low (K = 1; n=39) Pharm 04.03
Olanzapine vs placebo	Outpatients	SMD = -0.18 (-0.4, 0.04) * Moderate (K = 1; n=314) Pharm 04.02	

Any drug compared with placebo (where similar outcome reported by >= 3 studies)		SMD (random effects) = -2.36 (-3.1, -1.61) Moderate (K = 4; n=150) Pharm 04.01	

Notes: SMD = standardised mean difference (95% confidence intervals); K = number of studies; n = number of participants ; * based on skewed data

Comment

There is evidence that topiramate and aripiprazole reduce symptoms of anger within 8 to 12 weeks in symptomatic volunteers who meet diagnosis for borderline personality disorder and a comorbid axis I disorder, in particular depression or anxiety. However, these results are based on the studies by Nickel and associates. There was unlikely to be a difference in anger symptoms between outpatients taking olanzapine and those taking placebo. The GDG concluded that there was no evidence for the effectiveness of drug treatments in controlling symptoms of anger in people with borderline personality disorder.

6.7.5 Anxiety

The clinician-completed Hamilton Anxiety Rating Scale and STAI, and the self-completed SCL-90 (anxiety subscale) were reported. One study also provided follow-up data based on naturalistic follow-up. No conclusions can be drawn from this since the placebo group took medication during the follow-up period and the data are not presented here. The trials were between 8 and 24 weeks long.

Three studies reported measures of anxiety – see Table 88.

Table 88 Pharmacological studies reporting anxiety outcomes

Study ID	*Comparison*	*Population*
BOGENSCHUTZ2004	olanzapine vs placebo	Outpatients
LOEW2006	topiramate vs placebo	Symptomatic volunteers
NICKEL2006	aripiprazole vs placebo	Symptomatic volunteers
PASCUAL2008	Zipransidone vs placebo	Outpatients

There were insufficient studies reporting similar outcomes to undertake an analysis of all active treatments versus placebo. None of the data were skewed. There is evidence for the effectiveness of topiramate and aripiprazole (moderate) in symptomatic volunteers. The summary evidence profile is in Table 89.

Table 89 Summary evidence profile for effectiveness of treatment for anxiety symptoms

Comparison	**Population**	**Effect size/quality of evidence/number of studies-number of participants/forest plot**		
		Endpoint (clinician-	**Endpoint** (self-	**Follow-up** (**clinician-**

		rated)	rated)	**rated)**
Topiramate vs placebo	100% axis I (depression, anxiety, OCD, somatoform, eating, substance/alcohol misuse); symptomatic volunteers		SMD = -1.4 (-1.99, -0.81) Moderate (K = 1; n=56) Pharm 05.03	
Aripiprazole vs placebo	100% axis I (depression, anxiety, OCD, somatoform)); symptomatic volunteers	SMD = -0.73 (-1.29, -0.17) Moderate (K = 1; n=52) Pharm 05.01	SMD = -1.41 (-2.03, -0.8) (self-rated) Moderate (K = 1; n=52) Pharm 05.03	12 months: SMD = -2.67 (-3.56, -1.78) 18 months: SMD = -2.42 (-3.27, -1.57) Low (K = 1; n=39) Pharm 05.02
Olanzapine vs placebo	Outpatients		SMD = 0.21 (-0.46, 0.89) Very low (K = 1; n=34) Pharm 05.03	
Ziprasidone vs placebo	Outpatients	SMD = -0.11 (-0.62, 0.39) Very low (K = 1; n=60) Pharm 05.01		

Comment

There is evidence that topiramate and aripiprazole reduce symptoms of anxiety within 8 to 12 weeks in symptomatic volunteers who meet threshold for a diagnosis of borderline personality disorder and a comorbid axis I disorder, most commonly depression or anxiety. However, these results are based on the studies by Nickel and associates. There was no evidence of an effect of other drugs (olanzapine and ziprasidone). The GDG concluded that there was no evidence for the effectiveness of drug treatments in controlling symptoms of anxiety in people with borderline personality disorder.

6.7.6 Depression

The clinician-completed Hamilton Depression Rating Scale and the Montgomery Asberg Depression Scale, and the self-completed Beck Depression Inventory and SCL-90 (depression subscale) were reported. One study also provided follow-up data based on naturalistic follow-up. No conclusions can be drawn from this since the placebo group took medication during the follow-up period and the data are not presented here. Another trial provided data for 16-week follow-up. The trials were between 8 and 24 weeks long. In most studies participants had measurable depression symptoms, even in trials where major depressive disorder has been specifically excluded, whilst some trials specifically included only those with comorbid major depressive disorder. Eleven studies reported measures of depression – see Table 90.

Table 90 Pharmacological studies reporting depression outcomes

Study ID	*Comparison*	*Population*	*Depression at baseline (instrument)*
BOGENSCHUTZ2004	Olanzapine vs placebo	Outpatients	Not given
DELLAFUENTE1994	Carbamazepine vs placebo	Inpatients (excluded major depression)	Severe depression (HRSD-24)
FRANKENBURG2002	Divalproex vs placebo	Symptomatic volunteers; comorbid	High depression scores (SCL-

		bipolar II (excluded major depression)	90)
HOLLANDER2001	Divalproex vs placebo	Mixed sample	Mild depression (BDI)
LEOW2006	Topiramate vs placebo	Symptomatic volunteers with comorbid affective/anxiety disorders	Not given
NICKEL2006	Aripiprazole vs placebo (includes follow-up data)	Symptomatic volunteers with comorbid affective/anxiety disorders	Severe depression (HRSD)
PASCUAL2008	Ziprasidone vs placebo	Outpatients	Moderate depression (HRSD)
SOLOFF1989	Haloperidol vs amitripytline vs placebo	Inpatients with unstable BPD or SPD or comorbid BPD/SPD	Moderate depression (HRSD)
SOLOFF1993	Haloperidol vs phenelzine vs placebo (includes follow-up data)	Inpatients with comorbid depressive disorders	Moderate depression (HRSD)
ZANARINI2003	Omega-3 fatty acids vs placebo	Symptomatic volunteers	Moderate depression (MADRS)
ZANARINI2004	Olanzapine vs fluoxetine vs olanzapine + fluoxetine	Symptomatic volunteers with comorbid mood, substance use or anxiety disorders)	Mild depression (MADRS)

There were sufficient studies reporting similar outcomes to undertake an analysis of all active treatments versus placebo. This showed that treatment with drugs is effective for depression symptoms, although it should be noted that although most participants had some depression symptoms not all had been diagnosed with comorbid affective disorder. However, because of skewed data the overall quality grade was low.

Individual drugs which showed an effect include divalproex (in a mixed sample of participants including symptomatic volunteers with comorbid bipolar II and graded low because of skewed data), topiramate (in symptomatic volunteers with comorbid affective and anxiety disorders), antipsychotics (aripiprazole in symptomatic volunteers with comorbid affective and anxiety disorders) or haloperidol (in inpatients with unstable borderline personality disorder and SPD (50% with axis I diagnoses))and moderate depression at baseline) also graded low because of skewed data) and amitriptyline (mix of unstable borderline personality disorder and SPD; moderate depression at baseline). Omega-3 fatty acids (mild or severe depression (no diagnosis)) were also effective although the data were skewed. There were few follow-up data. However, one study added a 16-week continuation phase which showed that placebo was more effective after a total of 21 weeks of treatment.

In the available head-to-head trials, fluoxetine is better than olanzapine ((100% axis I disorders (mood, substance use, anxiety, eating) graded low because of skewed data). However, after a further 16 weeks on treatment, the placebo group showed fewer depression symptoms. Phenelzine (mix of borderline personality disorder and SPD with axis I disorders; moderate depression at baseline) was not effective compared with placebo. The summary evidence profile is in Table 91.

Table 91 Summary evidence profile for effectiveness of treatment for depression symptoms

Comparison	Population	Depression at baseline	Effect size/quality of evidence/number of studies-number of

			participants/forest plot	
Antipsychotics vs placebo		Moderate depression	SMD (random effects) = -0.68 (-1.21, -0.15) Low (K = 3; n=168))	SMD = -0.41 (-0.77, -0.04) Moderate (K = 2; n=116)
Antidepressants vs placebo				SMD = -0.46 (-0.82, -0.09)* Low (K = 2; n=119)
Any drug compared with placebo (where >= 3 studies report similar outcomes)		Moderate depression	SMD = -0.35 (-0.61, -0.08) Moderate (K = 5; n=223)	SMD (random effects) = -0.72 (-1.06, -0.38) Low (K = 9; n=385)
Inpatients				
Carbamazepine vs placebo	Inpatients (excluded major depression)	Severe depression	SMD = -0.52 (-1.41, 0.38) * Very low (K = 1; n=20) Pharm 06.06	SMD = -0.67 (-1.57, 0.24)* Very low (K = 1; n=20) Pharm 07.07
Haloperidol vs placebo	Inpatients with unstable BPD or SPD or comorbid BPD/SPD	Moderate depression	SMD = -0.05 (-0.42, 0.32) Low (K = 2; n=114) Pharm 06.03	SMD = -0.49 (-1.02, 0.04)* Low (K = 1; n=56) Pharm 07.04
Haloperidol vs placebo (follow-up at 21 weeks)	Inpatients with unstable BPD or SPD or comorbid BPD/SPD	Moderate depression	SMD = 0.97 (0.22, 1.71) (favours placebo)* Low (K = 1; n=32)	SMD = 0.64 (-0.08, 1.36) * (favours placebo) Low (K = 1; n=32) Pharm 07.06
Amitriptyline vs placebo	Inpatients; mix of unstable BPD and SPD; moderate depression at baseline	Moderate depression	SMD = -0.53 (-1.06, 0) Moderate (K = 1; n=57) Pharm 06.01	
Phenelzine vs placebo	Inpatients; mix of unstable BPD and SPD; moderate depression at baseline	Moderate depression	SMD = -0.18 (-0.68, 0.32)* Very low (K = 1; n=62) Pharm 06.01	
Phenelzine vs placebo (follow-up at 16 weeks)	Inpatients; mix of unstable BPD and SPD; moderate depression at baseline	Moderate depression	SMD = 0.12 (-0.5, 0.75)* Very low (K = 1; n=40) Pharm 06.02	SMD = -0.15 (-0.77, 0.47)* Low (K = 1; n=40) Pharm 07.02
Outpatients				
Olanzapine vs placebo	Outpatients	Not given		SMD = -0.45 (-0.23, 1.13) Very low (K=1; n=34) Pharm 07.05
Ziprazidone vs placebo	Outpatients	Moderate depression	SMD = -0.31 (-0.82, 0.2) Very low (K = 1; n=60) Pharm 06.03	SMD = -0.33 (-0.83, 0.18) Very low (K = 1; n=60) Pharm 07.04
Symptomatic volunteers				
Omega-3 fatty acids	Symptomatic volunteers/presentations at A&E following self-harm	Moderate/severe depression	SMD = -0.52 (-1.02, -0.01)* Low (K = 2; n=66) Pharm 06.07	SMD = -0.96 (-1.63, 0.3)* Low (K=1; n=39) Pharm 07.08
Divalproex vs placebo	Symptomatic volunteers with bipolar II ; other study mixed sample	Some depression present		SMD = -0.61 (-1.29, 0.07)* Low (K = 2; n=39) Pharm 07.07

Topiramate vs placebo	Symptomatic volunteers with comorbid affective/anxiety disorders	Not given		SMD = -0.51 (-1.04, 0.02) Moderate (K = 1; n=56) Pharm 07.07
Aripiprazole vs placebo	Symptomatic volunteers with comorbid affective/anxiety disorders	Severe depression	SMD = -1.25 (-1.85, -0.65) Moderate (K = 1; n=52) Pharm 06.03	SMD = -1.96 (-2.63, -1.29) Moderate (K = 1; n=52) Pharm 07.03
Olanzapine vs fluoxetine	Symptomatic volunteers with comorbid mood, substance use or anxiety disorders)	Mild depression	SMD = 0.73 (-0.03, 1.49)* Low (K = 1; n=29) Pharm 06.08	
Olanzapine vs fluoxetine + olanzapine	Symptomatic volunteers with comorbid mood, substance use or anxiety disorders)	Not given	SMD = 0.39 (-0.35, 1.13)* Very low (K = 1; n=29) Pharm 06.08	
Fluoxetine vs fluoxetine + olanzapine	Symptomatic volunteers with comorbid mood, substance use or anxiety disorders)	Mild depression	SMD = -0.41 (-1.19, 0.37)* Very low (K = 1; n=26) Pharm 06.08	

* based on skewed data

Comment

There is evidence that a range of drug treatments are effective in reducing depressive symptoms in people with a diagnosis of borderline personality disorder who have some pre-existing depression symptoms (even if no depression diagnosis has been made). However, the trials are all relatively small, and many report skewed data. In addition, most are in different drugs, with populations in a range of settings with various levels of depression symptoms at baseline, and it is quite possible that the depressive symptoms were part of a comorbid syndrome.

In inpatients, there is evidence for the effectiveness of amitriptyline, whilst haloperidol and phenelzine were not effective. In symptomatic volunteers aripiprazole and topiramate showed some effect.

6.7.7 Hostility

Six studies reported measures of hostility as measured by the clinician-rated Buss-Durkee Hostility Inventory, and the self-rated SCL-90 hostility subscale – see Table 92.

Table 92 Pharmacological studies reporting hostility outcomes

Study ID	*Comparison*	*Population*
DELLAFUENTE1994	Carbamazepine vs placebo	Inpatients (excluded major depression)
FRANKENBURG2002	Divalproex vs placebo	Symptomatic volunteers; comorbid bipolar II (excluded major depression)
LEOW2006	Topiramate vs placebo	Symptomatic volunteers with comorbid affective/anxiety disorders
NICKEL2006	Aripiprazole vs placebo (includes follow-up data)	Symptomatic volunteers with comorbid affective/anxiety disorders

SOLOFF1993	haloperidol vs phenelzine vs placebo	Inpatients with comorbid depressive disorders
SOLOFF1989	Haloperidol vs amitriptyline vs placebo	Inpatients with unstable BPD or SPD or comorbid BPD/SPD

There were sufficient studies reporting similar outcomes to undertake an analysis of all active treatments versus placebo. This showed a small, not statistically significant effect size. Aripiprazole, haloperidol, phenelzine and topiramate showed some effect on reducing hostility (moderate). The summary evidence profile is in Table 93.

Table 93 Summary evidence profile for effect of treatment on hostility

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot	
		Clinician-rated	Self-rated
Anticonvulsants			
Divalproex vs placebo			SMD = -0.15 (-0.91, 0.61) Very low (K = 1; n=30) Pharm 09.02
Topiramate vs placebo	**100% axis I (depression, anxiety, OCD, somatoform, eating, substance/alcohol misuse); symptomatic volunteers**		SMD = -3.1 (-3.89, -2.3) Moderate (K = 1; n=56) Pharm 09.02
Carbamazepine vs placebo;	**inpatients**		SMD = -0.34 (-1.23, 0.54) Very low (K = 1; n=20) Pharm 09.02
Antipsychotics			
Haloperidol vs placebo	**mix of unstable BPD and SPD (50% with axis I); moderate depression at baseline; inpatients**	SMD = -0.18 (-0.69, 0.34) Very low (K = 1; n=58) Pharm 09.01	SMD = -0.46 (-0.84, -0.09) Moderate (K = 2; n=114) Pharm 09.02
Haloperidol vs placebo (follow-up at 21 weeks)	**mix of unstable BPD and SPD (50% with axis I); moderate depression at baseline; inpatients**	SMD = -0.17 (-0.87, 0.53) Very low (K = 1; n=32) Pharm 09.01	
Aripiprazole vs placebo	**100% axis I (depression, anxiety, OCD, somatoform); symptomatic volunteers**		SMD = -1.14 (-1.73, -0.55) Moderate (K = 1; n=52) Pharm 09.02
Olanzapine vs placebo			SMD = -0.42 (-0.65, -0.2) Moderate (K = 1; n=314) Pharm 09.02
Antipsychotics vs placebo (various settings)			SMD = -0.43 (-0.63, -0.24) High (K = 3; n=428) Pharm 09.04
Antidepressants			
Amitriptyline vs placebo	**mix of unstable BPD and SPD; moderate depression at baseline; inpatients**		SMD = -0.3 (-0.82, 0.22) Very low (K = 1; n=58) Pharm 09.02
Phenelzine vs placebo	**mix of BPD and SPD with axis I disorders; moderate depression at baseline; inpatients**	SMD = -0.64 (-1.15, -0.13) Moderate (K = 1; n=62) Pharm 09.01	SMD = -0.34 (-0.84, 0.17) Low (K = 1; n=62) Pharm 09.02
Phenelzine vs placebo	**mix of BPD and SPD with**	SMD = -0.56 (-1.19,	

(follow-up at 21 weeks)	**axis I disorders; moderate depression at baseline; inpatients**	0.08) Moderate (K = 1; n=40) Pharm 09.01	
Any drug compared with placebo (where >= 3 studies report similar outcomes) (various settings)		SMD = -0.28 (-0.59, 0.03) Very low (K = 4; n=166)	

Comment

In symptomatic volunteers aripiprazole and topiramate showed some effect in reducing hostility (results based on the studies by Nickel and associates), and in inpatients, haloperidol and phenelzine showed some effect. In outpatients, olanzapine was effective. Overall, antipsychotics (haloperidol and olanzapine) showed some effect on symptoms, although this is modest. Carbamazepine and divalproex were not effective although the studies were underpowered.

6.7.8 Impulsivity

Three studies reported measures of impulsivity as measured by the clinician-rated Barratt Impulsiveness Scale and the self-rated Self Report Test of Impulse Control – see Table 94.

Table 94 Pharmacological studies reporting impulsivity outcomes

Study ID	*Comparison*	*Population*
PASCUAL2008	Ziprasidone vs placebo	Outpatients
SOLOFF1993	haloperidol vs phenelzine vs placebo	Inpatients with comorbid depressive disorders
SOLOFF1989	Haloperidol vs amitriptyline vs placebo	Inpatients with unstable BPD or SPD or comorbid BPD/SPD

There was unlikely to be a difference between antipsychotics and placebo on reducing impulsivity. The evidence for the effect of antidepressants was inconclusive. The summary evidence profile is in Table 95.

Table 95 Summary evidence table for studies reporting impulsivity outcomes

Comparison	**Population**	**Effect size/quality of evidence/number of studies-number of participants/forest plot**	
		Clinician-rated	**Self-rated**
Antipsychotics			
Antipsychotics vs placebo			
Haloperidol vs placebo	Inpatients, some with comorbid depressive disorders or SPD	SMD = 0.07 (-0.3, 0.43) Very low (K = 2; n=114) Pharm 10.01	SMD = 0.18 (-0.34, 0.7) Very low (K = 1; n=58) Pharm 10.02
Ziprasidone vs placebo	Outpatients	SMD = -0.06 (-0.57, 0.44) Very low (K = 1; n=60) Pharm 10.01	
Antidepressants			
Amitriptyline vs placebo	Mix of unstable BPD and SPD; moderate	SMD = -0.12 (-0.64, 0.4) Very low	

	depression at baseline; inpatients	(K = 1; n=57) Pharm 10.01	
Phenelzine vs placebo	Mix of BPD and SPD with axis I disorders; moderate depression at baseline); inpatients	SMD = 0 (-0.5, 0.5) Very low (K = 1; n=62) Pharm 10.01	
Phenelzine vs placebo (follow-up at 21 weeks)	Mix of BPD and SPD with axis I disorders; moderate depression at baseline; inpatients		SMD = 0.26 (-0.24, 0.76) Very low (K = 1; n=62) Pharm 10.02

Comment

There was no evidence for the effectiveness of antipsychotics or antidepressants for impulsivity in people with borderline personality disorder.

6.7.9 Borderline personality disorder symptomatology

Two studies reported the ZAN-BPD scale which measures symptoms of borderline personality disorder – see Table 96.

Table 96 Pharmacological studies reporting borderline personality disorder symptomatology

Study ID	*Comparison*	*Population*
ELI LILLY #6253	Olanzapoine vs placebo	Outpatients
SCHULTZ2008	Olanzapoine vs placebo	Outpatients

There were insufficient studies reporting similar outcomes to undertake an analysis of all active treatments versus placebo. There was some evidence that haloperidol was effective in reducing impulsivity in inpatients. The summary evidence profile is in Table 97.

Table 97 Summary evidence table for studies reporting borderline personality disorder symptomatology

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot
Olanzapine vs placebo	Outpatients	SMD = -0.15 (-0.31, 0.01) Moderate (K = 2; n=596) Pharm 14.01

Comment

There is no evidence that olanzapine produces a clinically significant reduction in the symptoms of borderline personality disorder compared with placebo, as measured by the ZAN-BPD.

6.8 Effect of treatment on general functioning and other outcomes

6.8.1 Global functioning

One study reported global functioning measured by the GAF, both in clinical populations mostly with comorbid depression - see Table 98.

Table 98 Pharmacological studies reporting global functioning measures

Study ID	*Comparison*	*Population*
SOLOFF1993	haloperidol vs phenelzine vs placebo	Inpatients with comorbid depressive disorders

There were insufficient studies reporting similar outcomes to undertake an analysis of all active treatments versus placebo. Haloperidol showed an effect on global functioning (moderate). The summary evidence profile is in Table 99.

Table 99 Summary evidence profile for effect of treatment on global functioning

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot (all clinician-rated)
Haloperidol vs placebo	mix of unstable BPD and SPD (50% with axis I); moderate depression at baseline; inpatients	SMD = -0.31 (-0.83, 0.21) Very low (K = 1; n=58) Pharm 08.01
Haloperidol vs placebo (follow-up at 21 weeks)	mix of unstable BPD and SPD (50% with axis I); moderate depression at baseline; inpatients	SMD = -0.73 (-1.45, 0) Moderate (K = 1; n=32) Pharm 08.01
Phenelzine vs placebo	mix of BPD and SPD with axis I disorders; moderate depression at baseline; inpatients	SMD = 0.14 (-0.36, 0.64) Very low (K = 1; n=62) Pharm 08.01
Phenelzine vs placebo (follow-up at 21 weeks)	mix of BPD and SPD with axis I disorders; moderate depression at baseline; inpatients	SMD = -0.17 (-0.79, 0.46) Very low (K = 1; n=40) Pharm 08.01

Comment

There was some effect on global functioning for haloperidol after 21 weeks of treatment, although only in one small study. There was no evidence for the effectiveness of phenelzine.

6.8.2 Mental distress

Four studies reported measures of mental distress as measured by the Global Severity Index which is calculated from the self-complete SCL-90 – see Table 100. It should be noted that the SCL-90 is made up of xx subscales, several of which are not usually associated with borderline personality disorder

symptomatology. Therefore, this measure may have limited validity in this population.

Table 100 Pharmacological studies reporting mental distress outcomes

Study ID	*Comparison*	*Population*
ELI LILLY #6253	Olanzapine vs placebo	Outpatients
SCHULTZ2008	Olanzapine vs placebo	Outpatients
NICKEL2006	Aripiprazole vs placebo (includes follow-up data)	Symptomatic volunteers with comorbid affective/anxiety disorders
SOLOFF1989	Haloperidol vs amitriptyline vs placebo	Inpatients with unstable BPD or SPD or comorbid BPD/SPD

There were insufficient studies reporting similar outcomes to undertake an analysis of all active treatments versus placebo. There was some evidence that aripiprazole was effective in reducing mental distress in symptomatic volunteers. The summary evidence profile is in Table 101.

Table 101 Summary evidence table for studies reporting mental distress outcomes

Comparison	**Population**	**Effect size/quality of evidence/number of studies-number of participants/forest plot (all self-rated)**	
		Endpoint	**Follow-up**
Haloperidol vs placebo	(mix of unstable BPD and SPD (50% with axis I); moderate depression at baseline); inpatients	SMD = 0.23 (-0.28, 0.75)* Very low (K = 1; n=58) Pharm 11.01	
Aripiprazole vs placebo	100% axis I (depression, anxiety, OCD, somatoform); symptomatic volunteers	SMD = -1.27 (-1.87, -0.67) Moderate (K = 1; n=52) Pharm 11.01	12 months: SMD = -2.62 (-3.5, -1.74) 18 months: SMD = -2.22 (-3.04, -1.4) Moderate (K = 1; n=39) Pharm 11.01
Olanzapine vs placebo	Outpatients	SMD (random effects) = -0.21 (-0.53, 0.1)* Very low (K = 2; n=557) Pharm 11.01	
Phenelzine vs placebo	mix of BPD and SPD with axis I disorders; moderate depression at baseline; inpatients	SMD = -0.23 (-0.73, 0.27)* Very low (K = 1; n=62) Pharm 11.01	

* based on skewed data

Comment

In symptomatic volunteers there is some evidence for the effectiveness of aripiprazole in reducing overall mental distress (based on studies by Nickel and associates). There is no evidence for the effectiveness of phenelzine or haloperidol.

6.8.3 Self-harm and suicide

Four studies reported self-harm rates or suicide attempts. See Table 102.

Table 102 Pharmacological studies reporting self-harm/suicidality outcomes

Study ID	*Comparison*	*Population*
ELI LILLY #6253	Olanzapine vs placebo	Outpatients
SCHULTZ2008	Olanzapine vs placebo	Outpatients
HALLAHAN2007	Omega-3 fatty acids vs placebo	A&E presentation following self-harm
ZANARINI2003	Omega-3 fatty acids vs placebo	Symptomatic volunteers

There was little difference in rates of self-harm between those taking omega-3 fatty acids and those taking placebo. This may be because treatment is unlikely to have an effect on within the relatively short timeframe of this trial. Similarly, there was little difference in the rate of suicide attempts or self-harm between those taking olanzapine and those taking placebo. See Table 103.

Table 103 Summary evidence profile for self-harm/suicidality outcomes

Comparison	**Population**	**Effect size/quality of evidence/number of studies-number of participants/forest plot**		
		Suicide attempts/self-harm	**OAS-M suicidality subscale change scores**	**ZAN-BPD suicidal/self-mutilating behaviour**
Olanzapine vs placebo	Outpatients	RD = 0.01 (-0.02, 0.04) 5% vs 3% High (K = 2; n=608) Pharm 12.02	SMD = -0.26 (-0.43, -0.1) Moderate (K = 2; n=586) Pharm 12.02	SMD = 0.3 (0.08, 0.52) Moderate (K = 1; n=314) Pharm 12.02
Omega-3 fatty acids vs placebo	A&E presentation following self-harm/symptomatic volunteers	RD = 0.01 (-0.19, 0.21) 23% vs 27% Very low (K = 2; n=69) Pharm 12.02		

Comment

There is no evidence that drugs reduce the rates of self-harm and/or suicide attempts. There was no evidence for the effect of other drugs on this outcome.

6.8.4 Psychopathology

Two studies reported the BPRS which is a general measure of psychopathology. See Table 106.

Table 104 Pharmacological studies reporting psychopathology outcomes

Study ID	*Comparison*	*Population*
DE LAFUENTE1984	Carbamazepine vs placebo	Inpatients
PASCUAL2008	Ziprasidone vs placebo	Outpatients

There was significant heterogeneity so the results of the two studies are reported separately. See Table 105.

Table 105 Summary evidence profile for psychopathology outcomes

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot (all clinician-rated)
Carbamazepine vs placebo	Inpatients	SMD = 1.27 (0.29, 2.25) Moderate (K = 1; n=20) Pharm 13.01
Ziprasidone vs placebo	Outpatients	SMD = -0.27 (-0.78, 0.24) Very low (K = 1; n=60) Pharm 13.01

Comment

There was evidence that taking placebo improved general psychopathology compared with carbamazepine, whilst the evidence for the effectiveness of ziprasidone on this outcome was inconclusive.

6.9 Effect of treatment on acceptability/tolerability outcomes

6.9.1 Leaving treatment early for any reason

Leaving treatment early for any reason (i.e., study attrition rate) is reported by most studies, although in a few the data were unclear and clarification was sought from authors.

There were no statistically significant differences between the attrition rates in treatment and comparison groups, although for some drugs attrition rates were relatively high (from both treatment and comparison group), including for divalproex and olanzapine. See Table 106.

Table 106 Summary evidence profile for leaving treatment early for any reason

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot
Antidepressants		
Fluvoxamine vs placebo	100% axis I (depression, dysthymia, anxiety, PTSD; mixed sample	RD = -0.06 (-0.23, 0.11) 5% vs 11% Very low (K = 1; n=38) Pharm 15.01
Fluoxetine vs fluoxetine + olanzapine	100% axis I (mood, substance use, anxiety, eating); symptomatic volunteers	RD = -0.06 (-0.3, 0.18) 15% vs 21% Very low (K = 0; n=39) Pharm 15.02

Antipsychotics		
Olanzapine vs placebo	outpatient/community	RD (random effects) = -0.01 (-0.16, 0.14) 39% vs 40% Very low (K = 4; n=833) Pharm 15.03
Aripiprazole vs placebo	100% axis I (depression, anxiety, OCD, somatoform); symptomatic volunteers	RD = 0 (-0.07, 0.07) 0% vs 0% Very low (K = 1; n=52) Pharm 15.04
Ziprasidone vs placebo	outpatients	RD = 0.1 (-0.15, 0.35) 57% vs 47% Very low (K = 1; n=60) Pharm 15.03
Antipsychotics vs placebo	various settings	RD (random effects) = 0.01 (-0.08, 0.09) 39% vs38% Very low (K = 6; n=945) Pharm 15.0
Olanzapine vs fluoxetine	100% axis I disorders (mood, substance use, anxiety, eating)); symptomatic volunteers	RD = 0.07 (-0.1, 0.24) 7% vs 0% Very low (K = 1; n=30) Pharm 15.04
Olanzapine vs fluoxetine + olanzapine	100% axis I disorders (mood, substance use, anxiety, eating); symptomatic volunteers	RD = 0.13 (-0.06, 0.33) 13% vs 0% Very low (K = 1; n=31) Pharm 15.05
Loxapine vs chlorpromazine	outpatients	RD = -0.03 (-0.18, 0.13) 13% vs 15% Very low (K = 1; n=80) Pharm 15.05
Anticonvulsants		
Divalproex vs placebo		RD = 0.03 (-0.09, 0.14) 47% vs 42% (K = 3; n=292) Very low Pharm 15.06
Topiramate vs placebo	100% axis I (depression, anxiety, OCD, somatoform, eating, substance/alcohol misuse); symptomatic volunteers	RD = -0.04 (-0.13, 0.05) 4% vs 8% Very low (K = 3; n=131) Pharm 15.06
Lamotrigine vs placebo	symptomatic volunteers	RD = -0.17 (-0.46, 0.12) 6% vs 22% Very low Pharm 15.06
Carbamazepine vs placebo	inpatients	RD = 0.2 (-0.08, 0.48) 20% vs 0% Very low (K = 1; n=20) Pharm 15.06
Anticonvulsants vs placebo	various settings	RD = 0.01 (-0.07, 0.08) 31% vs 30% Very low (K = 8; n=470) Pharm 15.06
Omega-3 fatty acids	Mild depression (no diagnosis); symptomatic volunteers	RD = 0 (-0.23, 0.23) 10% vs 10% (K = 1; n=30) Pharm 15.07

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Comment

None of the calculated effect sizes were statistically significant and there appeared to be some trials were large numbers left from both treatment and placebo groups, whilst in others relatively few participants did not complete the study protocol. This makes it hard to draw conclusions about the acceptability of treatment based on this outcome since are likely to be factors unrelated to the treatments affecting attrition. These may include aspects of the study protocol which are not analogous to care in the NHS. The failure to complete treatment is at a higher level than most comparable trials in psychiatric disorders and suggests a poorer level of adherence in this population.

6.9.2 Leaving treatment early because of side effects

Leaving treatment early because of side effects is also reported by most studies. However, few comparisons showed a statistically significant effect size, other than for anticonvulsants versus placebo, where placebo was more tolerable. See Table 107.

Table 107 Summary evidence profile for leaving treatment early because of side effects

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot
Antidepressants		
Amitriptyline vs placebo	mix of unstable BPD and SPD; moderate depression at baseline; inpatients	RD = 0 (-0.07, 0.07) 0% vs 0% Very low (K = 1; n=57) Pharm 16.01
Phenelzine vs placebo	mix of BPD and SPD with axis I disorders; moderate depression at baseline; inpatients	RD = 0 (-0.05, 0.05) 0% vs 0% Very low (K = 1; n=72) Pharm 16.01
Fluvoxamine vs placebo	100% axis I (depression, dysthymia, anxiety, PTSD); mixed sample	RD = 0.05 (-0.08, 0.18) 5% vs 0% Very low (K = 1; n=38) Pharm 16.01
Antidepressants vs placebo	various settings	RD = 0.01 (-0.03, 0.06) 1% vs 0% Very low (K = 3; n=167) Pharm 16.01
Fluoxetine vs fluoxetine + olanzapine	100% axis I (mood, substance use, anxiety, eating); symptomatic volunteers	RD = 0.07 (-0.1, 0.24) 7% vs 0% Very low (K = 1; n=29) Pharm 16.02
Antipsychotics		
Olanzapine vs placebo	outpatient/community	RD (random effects) = 0.01 (-0.09, 0.1) 8% vs 11% Very low

		(K = 4; n=833) Pharm 16.03
Aripiprazole vs placebo	100% axis I (depression, anxiety, OCD, somatoform); symptomatic volunteers	RD = 0 (-0.07, 0.07) 0% vs 0% Very low (K = 1; n=52) Pharm 16.03
Haloperidol vs placebo	mix of unstable BPD and SPD (50% with axis I); moderate depression at baseline; inpatients	RD = 0.01 (-0.04, 0.06) 2% vs 0% Very low (K = 2; n=126) Pharm 16.03
Antipsychotics vs placebo	various settings	RD = 0.00 (-0.04, 0.04) 7% vs 9% Very low (K = 7; n=1011) Pharm 16.03
Olanzapine vs fluoxetine	100% vs axis I disorders (mood, substance use, anxiety, eating); symptomatic volunteers	RD = 0.07 (-0.1, 0.24) 7% 0% vs Very low (K = 1; n=30) Pharm 16.04
Loxapine vs chlorpromazine	outpatients	RD = -0.05 (-0.14, 0.04) 3% vs 8% Very low (K = 1; n=80) Pharm 16.04
Olanzapine vs fluoxetine + olanzapine	100% axis I disorders (mood, substance use, anxiety, eating); symptomatic volunteers	RD = 0.07 (-0.1, 0.23) 7% vs 0% Very low (K = 1; n=31) Pharm 16.04
Anticonvulsants		
Divalproex vs placebo	Mixed outpatients symptomatic volunteers	RD = 0.09 (0.02, 0.17) 14% vs 5% (K = 3; n=292) Very low Pharm 16.05
Topiramate vs placebo	100% axis I (depression, anxiety, OCD, somatoform, eating, substance/alcohol misuse); symptomatic volunteers	RD = 0 (-0.05, 0.05) 0% vs 0% Very low (K = 3; n=131) Pharm 16.05
Lamotrigine vs placebo;	symptomatic volunteers	RD = 0 (-0.15, 0.15) 0% vs 0% Very low Pharm 16.05
Carbamazepine vs placebo;	inpatients	RD = 0 (-0.17, 0.17) 0% vs 0% Very low (K = 1; n=20) Pharm 16.05
Anticonvulsants vs placebo	various settings	RD = 0.06 (0.01, 0.11) 9% vs 3% Moderate (K = 8; n=470) Pharm 16.05
Omega-3 fatty acids	Mild depression (no diagnosis); symptomatic volunteers	RD = 0 (-0.14, 0.14) 0% vs 0% (K = 1; n=30) Pharm 16.06

1

2 ***Comment***

3 Only one of the calculated effect sizes was statistically significant
4 (anticonvulsants versus placebo) favouring placebo, although in placebo-

controlled trials more participants taking the study drug left treatment early because of side effects compared with those taking placebo.

6.9.3 Number of study participants reporting side effects

Most studies also reported the number of participants reporting side effects (regardless of whether they left treatment early). In the divalproex versus placebo studies there were high levels of side effects reported by those both in the treatment and placebo groups, but in most other studies few side effects were reported. Participants taking olanzapine plus fluoxetine reported fewer side effects than those taking olanzapine alone. Fewer of those in the fluoxetine only group reported side effects. However, the rate of reporting in all four treatment groups in this trial were very high. See Table 108.

Table 108 Summary evidence profile for number of study participants reporting side effects

Comparison	Population	Effect size/quality of evidence/number of studies-number of participants/forest plot
Antidepressants		
Amitriptyline vs placebo	(mix of unstable BPD and SPD; moderate depression at baseline); inpatients	RD = 0 (-0.07, 0.07) 0% vs 0% Very low (K = 1; n=57) Pharm 17.01
Phenelzine vs placebo	(mix of BPD and SPD with axis I disorders; moderate depression at baseline); inpatients	RD = 0 (-0.05, 0.05) 0% vs 0% Moderate (K = 1; n=72) Pharm 17.01
Fluvoxamine vs placebo	100% axis I (depression, dysthymia, anxiety, PTSD); mixed sample	RD = 0.34 (0.08, 0.61) 90% vs 56% Very low (K = 1; n=38) Pharm 17.01
Antidepressants vs placebo	(various settings)	RD = 0.08 (0.01, 0.15) 21% vs 13% Very low (K = 3; n=167) Pharm 17.01
Fluoxetine vs fluoxetine + olanzapine	(100% axis I (mood, substance use, anxiety, eating)); symptomatic volunteers	RD = -0.23 (-0.56, 0.1) 57% vs 80% Very low (K = 1; n=29) Pharm 17.02
Olanzapine vs fluoxetine	(100% vs axis I disorders (mood, substance use, anxiety, eating)); symptomatic volunteers	RD = -0.43 (-0.69, -0.17) 57% 100% Very low (K = 1; n=30) Pharm 17.02
Antipsychotics		
Olanzapine vs placebo	outpatient/community	RD (random effects) = 0.1 (-0.05, 0.25) 63% vs 54% Very low (K = 2; n=488) Pharm 17.03
Haloperidol vs placebo	(mix of unstable BPD and SPD (50% with axis I); moderate depression at baseline); inpatients	RD = 0 (-0.04, 0.04) 0% vs 0% Moderate (K = 2; n=126)

		Pharm 17.03
Aripiprazole vs placebo	100% axis I (depression, anxiety, OCD, somatoform); symptomatic volunteers	RD = 0 (-0.07, 0.07) 0% vs 0% Very low (K = 1; n=52) Pharm 17.03
Antipsychotics vs placebo	various settings	RD = 0.04 (-0.01, 0.08) 4% vs 0% Moderate (K = 4; n=218) Pharm 17.03
Loxapine vs chlorpromazine	outpatients	RD = -0.08 (-0.28, 0.13) 28% vs 35% Very low (K = 1; n=80) Pharm 17.04
Fluoxetine + olanzapine vs olanzapine	(100% axis I disorders (mood, substance use, anxiety, eating)); symptomatic volunteers	RD = -0.2 (-0.42, 0.02) 80% vs 100% Very low (K = 1; n=31) Pharm 17.04
Anticonvulsants		
Divalproex vs placebo	Various settings; some BDII, cluster B & intermittent explosive disorder	RD = 0.1 (0.02, 0.17) 74% vs 74% (K = 3; n=292) Very low Pharm 17.05
Topiramate vs placebo	100% axis I (depression, anxiety, OCD, somatoform, eating, substance/alcohol misuse); symptomatic volunteers	RD = 0 (-0.06, 0.06) 0% vs 0% Very low (K = 2; n=86) Pharm 17.05
Lamotrigine vs placebo	symptomatic volunteers	RD = 0 (-0.1, 0.1) 0% vs 0% Moderate Pharm 17.05
Carbamazepine vs placebo	inpatients	RD = 0 (-0.17, 0.17) 0% vs 0% Very low (K = 1; n=20) Pharm 17.05
Anticonvulsants vs placebo	various settings	RD = 0.06 (0.01, 0.12) 51% vs 48% Very low (K = 7; n=434) Pharm 17.05
Omega-3 fatty acids	Mild depression (no diagnosis); symptomatic volunteers	Considerable heterogeneity – overall result not reportable Pharm 17.06

Comment

In some trials report a large proportion of participants reported side effects in both treatment and placebo groups, whilst in others reporting levels were much lower. Given this heterogeneity in these data, they are hard to interpret.

6.9.4 Weight change

Some studies of anticonvulsants and antipsychotics reported weight gain/loss or mean weight at endpoint. Weights are in kilograms. This was not reported by trials of antidepressants. Those taking olanzapine showed a statistically significant weight gain of 2.72 kg in studies lasting between 12 and 26 weeks. However, there were few data for other drugs. See Table 109.

Table 109 Summary evidence profile for weight change

Comparison	Population	Effect size /quality of evidence/number of studies-number of participants/forest plot
Antidepressants		
Fluoxetine vs fluoxetine + olanzapine	100% axis I (mood, substance use, anxiety, eating); symptomatic volunteers	WMD = 1 (-0.39, 2.39) Moderate (K = 1; n=26) Pharm 18.01
Fluoxetine vs olanzapine	Symptomatic volunteers; mild depression at baseline	WMD = -2.5 (-4.29, -0.72) Moderate (K = 1; n=29) Pharm 18.01
Antipsychotics		
Olanzapine vs placebo	outpatient/community	WMD (random effects) = 2.96 (2.37, 3.55) Moderate (K = 4; n=668) Pharm 18.02
Olanzapine vs fluoxetine	100% axis I disorders (mood, substance use, anxiety, eating); symptomatic volunteers	WMD = -2.5 (-4.29, -0.72) Moderate (K = 1; n=29) Pharm 18.02
Fluoxetine + olanzapine vs olanzapine	100% axis I disorders (mood, substance use, anxiety, eating); symptomatic volunteers	WMD = -1.5 (-2.91, -0.09) Moderate (K = 1; n=29) Pharm 18.02
Anticonvulsants		
Divalproex vs placebo	Various settings; some BDII, cluster B & intermittent explosive disorder	WMD = 1.04 (-0.54, 2.62) Very low (K = 1; n=30) Pharm 18.03
Topiramate vs placebo	100% axis I (depression, anxiety, OCD, somatoform, eating, substance/alcohol misuse)); symptomatic volunteers	WMD = -4.93 (-20.34, 10.48) Very low (K = 3; n=127) Pharm 18.03
Lamotrigine vs placebo	symptomatic volunteers	WMD = -1.3 (-9.82, 7.22) Very low (K = 1; n=27) Pharm 18.03

Comment

Few data for weight gain were statistically significant other than for olanzapine which showed an average weight gain of between 1kg and 2kg.

6.10 Summary of clinical evidence review

Although there are 27 studies of pharmacological treatments in people with a diagnosis of borderline personality disorder, there are few studies of each individual drug which makes it difficult to draw firm conclusions. Also, there are variations in the populations in each study, including inpatients, outpatients and symptomatic volunteers, and those with and without comorbid axis I disorders. This means that there are very few studies for each drug within each setting, and means that that any calculations made have low power. Another problem with this dataset is the large number of outcomes reported by each individual studies, and the lack of standard outcome rating

scales within the research field. This also makes the dataset very hard to analyse. However, a relatively large proportion of the available studies have been published relatively recently which points to a growing interest in research in this area. This is encouraging for the future.

There was some evidence that pharmacological treatments can help to reduce specific symptoms experienced by people with borderline personality disorder including anger, anxiety, depression symptoms, hostility and impulsivity, although this is largely based on single studies. However, there is no evidence that they alter the fundamental nature of the disorder in either the short or longer term. The evidence is weak, and it is far from clear if the effects we found are the consequence of treating comorbid disorders. In addition, no drug has UK marketing authorisation for these indications in people with borderline personality disorder.

There were too few data to assess quality of life outcomes, self-harm/suicidality (except for omega-3 fatty acids) and service use. It was also not possible to explore potential moderators including:

- % population with bipolar diagnoses
- % psychotic or schizotypal
- High dropout rates.

There were few meaningful data regarding harm, so this was difficult to assess. However, it is well known that treatment with olanzapine can lead to weight gain and diabetes, and the use of antipsychotics is associated with significant and in some cases irreversible long-term harm, such as tardive dyskinaesia.

There were no data to suggest that any drug was effective as an overall mood stabiliser in people with borderline personality disorder. There is therefore insufficient evidence for the treatment of borderline personality disorder or of the individual symptoms of borderline personality disorder. However, pharmacological treatments may be appropriate for the treatment of comorbid disorders, such as depression. Comorbidity is discussed in the care pathway (chapter 8).

6.11 Clinical practice recommendations

6.11.1 The role of drug treatment

6.11.1.1 Drug treatment should not be used specifically for borderline personality disorder or for the individual symptoms or behaviour associated with the disorder (for example, repeated self-harm, marked emotional instability, risk-taking behaviour, and transient psychotic symptoms).

6.11.1.2 Antipsychotic drugs should not be used for the medium- and long-term treatment of borderline personality disorder.

6.12 Research recommendation

6.12.1 Mood stabilisers for people with borderline personality disorder

6.12.1.1 A randomised placebo-controlled trial should be conducted to investigate the effectiveness and cost effectiveness of mood stabilisers in the treatment of borderline personality disorder. The study should examine the medium to long-term impact of such treatment. The study should be sufficiently powered to investigate both the effects and side effects of this treatment.

Why this is important

An evidence base for the effectiveness of pharmacological treatments for people with personality disorder does not exist. However encouraging findings from small-scale studies of mood stabilisers such as topiramate and lamotrigine indicate the need for further research. Emotional instability is a key feature of borderline personality disorder and the impact of such treatments on mood and other key features of this disorder. The findings of such a study would support the development of future recommendations on the role of pharmacological interventions in the treatment of borderline personality disorder.

An additional research recommendation on the development of an agreed set of outcomes measures for borderline personality disorder can be found in chapter 5.

7 Management of crises

7.1 Introduction

Despite the absence of evidence for the use of a specific drug in the treatment of borderline personality disorder, medication is used frequently in clinical practice either to manage a crisis or in continuing treatment of symptoms of the disorder itself or to treat co-morbid conditions. People with borderline personality disorder can often present in a crisis; indeed this is characteristic of many people with the disorder. They present with a range of symptoms and behaviours, including behavioural disturbance, self-harm, impulsive aggression, and short-lived psychotic symptoms, as well as with intense anxiety, depression and anger. As a result they can be regular users of psychiatric and acute hospital emergency services.

Frequent crisis presentation may induce complacency in assessors who fail to estimate the risk accurately; the context of a person's regular contact with services in a crisis inoculates them against assessing each presentation in its own right. The challenge is to assess risk and to manage the crisis without acting in ways that are experienced by the patient as invalidating or minimising their problems whilst, at the same time, fostering autonomy. In particular, assessors need to avoid interventions that might cause harm, including undermining a persons autonomy, often balanced against the need to intervene. For example, too rapid an admission to hospital may prevent development of skills to manage emotional crises, and yet refusal to admit may endanger the patient. Assessors need to take into account that the emotional reactivity of patients with borderline personality disorder may mask underlying comorbidities such as depression, whilst, on the other hand, may primarily be part of situationally triggered emotional dysregulation which may resolve with limited intervention.

Medication is commonly started when a patient presents in crisis although there is no evidence for the use of any specific drug or combination of drugs in crisis management. In making judgments of the value of psychotropic drugs in the treatment of borderline personality disorder it is important to be aware that much prescription is given in crisis settings, where the intervention imperative is very strong and new prescriptions often follow. This has the potential for a dangerous collusion between the patient and the prescriber that should not be fostered if its only gain is short-term satisfaction more than offset by long-term adverse effects from continuing prescribed medication. Therefore, when medication is used, it should always be considered in the context of a longer term treatment plan involving psychological and/or social intervention. Of particular importance is the issue of service user capacity to consent to treatment during times of crisis.

7.2 Current practice

People with borderline personality disorder may present to a range of emergency services, including ambulance services and emergency departments, if self-harm or suicide attempts are part of the presentation, or to the police if public disturbance is part of the picture. Families and friends may be involved and, in this situation mental health professionals may need to involve the family in managing the crisis, whilst ensuring that families are not over-burdened with responsibility. Crisis teams within mental health services may be called allowing patients to be offered immediate support whilst assessment of risk and review of treatment takes place. Offering support and regular contact to the patient is probably the commonest intervention offered in a crisis. On the basis of the crisis evaluation, decisions need to be made to admit or not to admit the person to hospital, to offer immediate daily contact, including home treatment, to arrange outpatient care, to continue with scheduled treatment, or to commence the development of a more formal treatment process.

7.3 Reviewing the evidence base

When searching for randomised controlled trials of treatments in people with borderline personality disorder (see chapter 5 and other evidence review chapters for details of the search for RCTs), we found none in which people had been specifically recruited during a crisis period. Since crises can both pass and recur quickly in this client group, this is not surprising. Also, the nature of crises in this client group mean there are considerable issues of consent in recruiting people to trials.

This chapter is therefore developed based on the expert opinion of the GDG (see methods chapter).

7.4 General management of crises

The overall aim during the management of a crisis is to help the person to return to a more stable level of mental functioning as quickly as possible without inducing any harmful effects which might prolong the problems. The person's autonomy should be maintained as far as possible, their safety and that of others assured, and their emotions, impulses, and behaviours reduced to a manageable level. Supportive, empathic comments are necessary in the first instance and these may be particularly beneficial if the initial contact in the crisis is by telephone. Medication use should be limited, following the general guidance below, and should be only for short-term use. Specific goals of treatment should be set.

1 Vignette of a service user accessing services during a crisis

Being faced with someone with borderline personality disorder in crisis can unfortunately be perceived as quite a daunting prospect for some people. In my experience, though, it needn't be. Responses don't need to be that profound or from people with a lot of experience of working with this disorder, they just need to be human. Despite this, I have often found that responses to me at such crises were variable and at times unhelpful. However, I have been fortunate enough to have had some very good responses over the period of my disorder that illustrates this point.

I was experiencing a period of extremely low mood. My psychiatrist who had seen me through most of my journey had recently retired, I had been raped about six months previously, and after a destructive relationship had also been through a pregnancy and termination. After previously making so much progress, I was deteriorating rapidly in mood. I had cut-off from my psychologist and was withdrawing from work with my CPN. Although most of the time I was too low to care, at other times I was desperate for connectedness and needed to know that someone was aware of how desperate I was feeling.

I made contact with the Out-of-Hours Social Work Team by telephone. This is a service that deals primarily with emergency child, welfare and older adult issues, but takes over from the adult mental health out-of-hours service after 10pm. Although most of the social works are Approved Social Workers and have knowledge of the mental health act and the issues associated with it, the majority of them have not had any specific therapeutic training or any specialist personality disorder related training. The point I am trying to make is that none of them were skilled therapists with experience of people with borderline personality disorder.

Anyway, I phoned them and got through to one of the duty social workers who helped me to calm myself enough to talk. This was achieved by him remaining calm, reassuring me and not making me feel that I had limited time or needed to rush. A few gentle questions helped, not, what I call, big questions such as 'How can I help?' or 'What's happened?', but smaller questions such as 'I can hear you're upset, how long have you been feeling like this', 'do you know why you're feeling like this?. Big questions such as 'How can I help?' or 'What's wrong?' always feel to me too overwhelming, too big and too difficult to find a starting point.

It only took a few little questions to get me started and to begin to articulate what I was feeling. I hadn't spoken to anyone in days – so I really appreciated not feeling rushed, pressurised into speaking or sensing that the other person was getting frustrated with my in-articulation. Once I began to speak, it became easier to express my distress with the help of some prompts, some empathy, some help with articulation when I was struggling to express myself. I didn't need much. I just needed a sense of connection to another human being, to feel reassured, I needed to feel that the person cared enough to have some empathy. I didn't need anything doing, no crisis admission or referral etc (even though I would need a more assertive intervention in the weeks to come, that wasn't what I was looking for or needed at that moment). I didn't even need anyone specialised. I just needed a caring human response, to hear a voice.

We would have only been on the telephone for about 30 minutes in total, but it was enough to help to 'hold' me through the night. The social worker gave me the option to ring back again in the night if I needed to, and although I didn't wish to, it was helpful in helping me to contain my feelings knowing that option was there. The other useful outcome of this phone contact was the knowledge that there would be some kind of follow up the next morning. The social worker following my phone call sent a fax to my CPN outlining the details of my contact with a request for my CPN to ring me to check that I was ok and if any further follow up was needed. Just knowing that a follow up and human contact was in place for the next day/morning makes such a big difference in helping to contain the intense emotional distress that can occur with this disorder and stopping situations escalating into admission crises or self-harm. On this occasion and on a number of previous situations I didn't need much from my CPN once he rang, sometimes I would need an extra visit, but on other occasions the knowledge that the phone call was to take place was enough to settle me for the time being and knowing that I'd have a opportunity to briefly talk through the feelings I was struggling with was enough to enable me to manage until the next scheduled appointment time.

7.4.1 Clinical practice recommendations

Clinical practice recommendations relating to the management of crises in primary care can be found in the care pathway in chapter 8.

7.4.1.1 When a person with borderline personality disorder presents during a crisis, healthcare professionals should consult the crisis plan and use the following psychological approach:

- maintain a calm and non-threatening attitude
- try to understand the crisis from the person's point of view
- explore the person's reasons for distress
- use empathic open questioning and clarifying and validating statements to identify the onset and the course of the current problems
- seek to stimulate reflection about solutions
- avoid minimising the stated reasons for the crisis
- refrain from offering solutions before receiving full clarification of the problems
- explore alternative options before considering admission to a crisis unit or inpatient admission
- offer appropriate follow-up within a time frame agreed with the person.

7.5 Pharmacological management of crises

It is recognised that during crises drug treatments are often considered as part of the emergency management of crises sometimes including self-harm and violence although no specific treatments for borderline personality disorder are recommended, either for the disorder or for particular symptom clusters.

7.5.1 Clinical practice recommendations

7.5.1.1 Before starting short-term drug treatments for people with borderline personality disorder during a crisis healthcare professionals should:

- ensure that there is consensus among treating professionals about the drug used and that the primary prescriber is identified
- take account of the psychological role of prescribing (both for the individual and for the prescriber) and the impact that prescribing decisions may have on the therapeutic relationship and the overall care plan, including long-term treatment strategies
- ensure that a drug is not used in the place of other more appropriate interventions
- use a single drug wherever possible and avoid polypharmacy.

7.5.1.2 When choosing a drug for people with borderline personality disorder in a crisis, clinicians should choose one that has:

- a low side-effect profile
- low addictive properties
- minimal potential for abuse
- relative safety in overdose.

7.5.1.3 When the decision has been made to use short-term drug treatment as part of the management of crisis for people with borderline personality disorder, prescribers should:

- agree with the person the target symptoms, monitoring arrangements and anticipated duration of treatment
- jointly agree with the person a plan for adherence
- use the minimum effective therapeutic dose
- prescribe fewer tablets more frequently if there is a significant risk of overdose

- discontinue a drug after a trial period if the target symptoms do not improve

- consider alternative treatment strategies, including psychological treatments, if target symptoms or the level of risk do not improve

- arrange an appointment to review the overall care plan, including a review of pharmacological and other treatments, after the crisis has subsided.

7.5.1.4 Short-term use of sedative medication may be considered cautiously as part of the overall treatment plan for people with borderline personality disorder in a crisis. The duration of treatment should be agreed with the individual, but should be no longer than a week.

7.6 Follow-up after a crisis

Medication prescribed during a crisis may be continued inadvertently after the symptoms which presented during the crisis have subsided. This may lead to service users taking more than one medication for an extended period of time, and there is evidence to suggest that people with borderline personality disorder are prescribed inappropriate combinations and excessive numbers of psychotropic medications at any one time (Sansone et al 2003; Zanarini et al 2004). Any patient, whatever their current diagnosis, who describes a treatment history of polypharmacy with limited beneficial response should have their diagnosis reviewed with consideration given to the possibility of borderline personality disorder. Also, no medication has UK marketing authorisation for the treatment of borderline personality disorder so the continuing use of medication in people with borderline personality disorder should be done with caution and take into account normal prescribing practice for patients at risk of self-harm. Prescribing should, wherever possible, be limited to the short-term management of crisis using sedatives or to the treatment of comorbid conditions. Some advice is available on the use of medication is used for other reasons - see 'Use of licensed medicines for unlicensed applications in psychiatric practice' published by the Royal College of Psychiatrists (http://www.rcpsych.ac.uk/files/pdfversion/cr142.pdf).

There is no evidence that patients with borderline (or other) personality disorder need higher doses of medication than other patients. Dosage should be kept within the normal therapeutic range.

7.6.1 Clinical practice recommendations

7.6.1.1 After a crisis has resolved or subsided, ensure that crisis plans within the overall care plan are updated to reflect current

concerns and identify which treatment strategies have proved helpful. This should be done in conjunction with the person with borderline personality disorder and their carers where possible, and should include:

- a full review of drug treatment, including benefits, side effects, any safety concerns and its role in the overall treatment strategy
- a plan to stop drug treatment that has been started during a crisis, usually within a week
- a review of psychological treatments, including their role in the overall treatment strategy, any possible harm related to psychological treatments and their potential role in precipitating the crisis.

7.6.1.2 If drug treatments started during a crisis cannot be stopped within a week, there should be a regular review of the drug to monitor effectiveness, side effects, misuse and dependency. The frequency of the review should be agreed with the person and recorded in the overall care plan.

7.7 Management of insomnia

7.7.1 Introduction

Although insomnia can be a problem for people with borderline personality disorder, there is nothing specific to its management in relation to the disorder. Therefore, genereal advice relevant to anyone with sleep problems, can be given. This should include advice on sleep hygiene, such as avoiding activity or caffeine near to bedtime, should be given.

7.7.1.1 Healthcare professionals should provide people with borderline personality disorder who have sleep problems with general advice about sleep hygiene, including having a bedtime routine, avoiding caffeine, reducing activities likely to defer sleep (such as violent or exciting television programmes or films), and employing activities that may encourage sleep.

7.7.2 Short-term management of sleep disturbance

Some people with borderline personality disorder have found the occasional use of sedative antihistamines useful when sleep disturbance has been associated with emotional instability.

There is also a NICE Technology Appraisal on the use of newer hypnotic drugs in managing insomnia (NICE, 2004). This recommended:

1.1 When, after due consideration of the use of non-pharmacological measures, hypnotic drug therapy is considered appropriate for

the management of severe insomnia interfering with normal daily life, it is recommended that hypnotics should be prescribed for short periods of time only, in strict accordance with their licensed indications.

1.2 It is recommended that, because of the lack of compelling evidence to distinguish between zaleplon, zolpidem, zopiclone or the shorter acting benzodiazepine hypnotics, the drug with the lowest purchase cost (taking into account daily required dose and product price per dose) should be prescribed.

1.3 It is recommended that switching from one of these hypnotics to another should only occur if a patient experiences adverse effects considered to be directly related to a specific agent. These are the only circumstances in which the drugs with the higher acquisition costs are recommended.

1.4 Patients who have not responded to one of these hypnotic drugs should not be prescribed any of the others.

7.7.3 Clinical practice recommendation

Management of insomnia

7.7.3.1 For the further short-term management of insomnia healthcare professionals should follow NICE technology appraisal guidance 77. However healthcare professionals should be aware of the abuse potential of many of the drugs used for insomnia and may wish to consider other drugs such as sedative antihistamines.

8 The configuration and organisation of services

8.1 Introduction

Concerns have repeatedly been expressed about the quality of services for people with personality disorder. In 2003, the Department of Health in England highlighted the problems that many people with personality disorder face when trying to access appropriate care in primary or secondary services (Department of Health, 2003). Consequently, the Department of Health set standards for delivering services to people with personality disorder in England which aimed to ensure that people with personality diosorder (including borderline personality disorder) are able to access general and specialist mental health services. Mental Health Trusts in England are now expected to take responsibly for meeting the needs of people with personality disorder with an emphasis placed on local expertise, suitable skills and multi-agency working (Appleby, 2007).

However, a significant challenge for the NHS is that the evidence base on which to guide the development of services for people with personality disorder is poor. General principles, based on expert opinion, have the approach that should be taken to working with people with personality disorder (Holmes 1999; Bateman & Tyrer) and considered how general mental health services can work more effectively with people with such probelms (Sampson et al. 2006). However, research conducted in this field has generally focused on delivering a specific treatment/therapy and not service configuration or organisation. To address this problem the Department of Health in England funded a number of new services for people with personality disorder and commisoned research aimed at identifying organisational, therapeutic and other factors that service users and providers believe result in high quality care for people with personality disorders (Crawford et al. 2007).

Lessons learned from the evaluation of these new services suggests that due to the complexity of personality disorder most services should; offer more than one type of intervention, make efforts to encourage patient choice and active participation, have a coherent model for understanding personality disorder, have clear systems of communication, make sure the person with a personality disorder is valued within the service and that services have facilities to help a person in a crisis (Crawford et al. 2008).

This clinical guideline aims to build on these findings and propose clinical guidelines for service configuration and organisation for borderline personality disorder. A systematic review of the evaluable evidence was undertaken. Where possible current evidence for service provision for people

with borderline personality disorder that could help service providers and practitioners determine what type of services maximise effectiveness and safety and minimise harm for the delivery of specific treatments for people with borderline personality disorder will be presented.

The chapter begins by reviewing the evidence on specialist services (including community-based) in the medium- and long-term management of people with borderline personality disorder. The following section will describe a patient pathway for borderline personality disorder that is not dissimilar to other guidelines proposed as it follows the stepped care and chronic care models of service delivery (as recommended in the recurrent depressive disorder and bipolar disorder guidelines). As described in previous guidelines the stepped care model recommends offering the least restrictive and least costly intervention that will be effective for the problem the individual presents with (Davison, 2000). Whilst, the chronic care model requires a systematic follow up of the interface between primary and secondary care.

The following sections will review the available clinical evidence on the risk of suicide and effectiveness of inpatient care for people with borderline personality disorder before exploring the needs of their carers. Finally, the chapter will explore whether special considerations are required for adolescents with borderline personality disorder.

8.1.1 Topics considered

This chapter looks at the different types of services involved in the delivery of care for people with borderline personality disorder. In particular, the following topics are considered:

- the role of specialist services
- risk factors for suicide
- the role of inpatient care
- a care pathway for people with borderline personality disorder
- special considerations for people with learning disabilities.

8.1.2 Reviewing the evidence base

In order to make recommendations about services for people with borderline personality disorder the GDG asked a series of clinical questions which are reproduced in the reviews which follow. For all reviews summary study characteristics and descriptions of the studies are given in tables below but more information in available in appendix 16. Similarly, summary evidence profiles are given in tables below with the full profiles in appendix 18 and the forest plots in appendix 17. Reviewed studies are referred to by first author surname in capitals plus year of publication. Full references for these studies are in appendix 16 rather than the reference list in this document for reasons of space.

8.2 The role of specialist services

In order to make recommendations about specific psychological therapies for people with borderline personality disorder the GDG asked two linked clinical questions:

What type of services maximise effectiveness and safety and minimise harm (taking into account long-term outcomes) for the delivery of specific treatments for people with borderline personality disorder?

What is the role of specialist services (including community-based) in the medium- and long-term management of people with borderline personality disorder?

The most appropriate research design to answer this is the randomised controlled trial, and therefore the evidence base reviewed comprised all available randomised controlled trials undertaken in people with a diagnosis of borderline personality disorder. However, since for some more recently developed therapies there are no randomised trials, evidence from non-randomised trials was sought.

8.2.1 Evidence search

We undertook a search for all RCTs in borderline personality disorder.This did not yield any which specifically made comparisons of services in this client group. We therefore checked the literature in serious mental illness which had been reviewed for the NICE guideline on schizophrenia (NCCMH, 2002) and updated for the NICE guideline on bipolar disorder (NCCMH, 2005). None of the studies included in this review involved high percentages of people with a diagnosis of borderline personality disorder (although a number of studies did not report axis II diagnoses) (see Table 110). We therefore undertook a new search for RCTs in this area in any personality disorder.

Table 110 Studies of specialist services reviewed by the NICE guideline on bipolar disorder showing percentage with comorbid personality disorder

Assertive Community Treatment (ACT)	
ACT vs Case management	
BUSH1990	5% PD
DRAKE1998	No mention of PD
ESSOCK1995	No axis II
JERRELL1995	Axis I only
MORSE1997	Axis I only
QUINLIVAN1995	Primary axis I diagnosis only
ACT vs Hospital based rehabilitation	
CHANDLER1997	No mention of PD
DECANGAS1994	PD in exclusion criteria
LAFAVE1996	17% PD by DSM-III-R
MARX1973	20 % other diagnosis covering a wide range, including sociopathic personalities
ACT vs Standard care	
ABERG1999	Study DB says 88% schizophrenia, 12% psychotic illness
AUDINI1994	No axis II
BOND1988	No PD
BOND1990	5% PD

DEKKER2002	'Majority suffered schizophrenia, but many also had PD'
FEKETE1998	20% other, for example PD
HAMPTON1992	Couldn't find paper. Study DB says 42% schizophrenia
HERINCKX1997	No mention of PD
LEHMAN1997	Axis I only
MORSE1992	Axis I only
QUINLIVAN1995	Primary axis I diagnosis only
ROSENHECK1993	8% PD
TEST1991	No PD
Crisis Resolution and Home Treatment Teams (CRHTT)	
CRHTT vs Standard care (all included in Cochrane review, JAY2004)	
FENTON1979	Schizophrenia, psychoses or neurosis only
FENTON1998	Comorbid axis II disorder among patients without schizophrenia or schizo-affective or bipolar – 20% (NB, only 3% of total participants did not have schizophrenia, schizo-affective or bipolar)
HOULT1981	30% other – no more detail
JOHNSON2005	13% PD
MUIJEN1992	15% other – no more detail
PASAMANICK1964	100% schizophrenia
STEIN1980	50% schizophrenia, no more detail
Community Mental Health Teams (CMHT)	
CMHT + intensive case managment vs CMHT	
MALM2001	100% schizophrenia
CMHT vs Standard care	
TYRER1998	16% other – no further detail
CMHT vs standard community care	
MERSON1992	1% PD (n=1)
Home based approach vs casemanagment + outpatient rehabilitation	
SELLWOOD1999	100% schizophrenia
Day hospitals	
Day hospital vs Admission	
CREED1990	10% PD
CREED1997	PD in exclusion criteria
DICK1985A	Participants admitted as emergencies with PD were discussed with the ward team. 42% other – no further detail
HERZ1971	9% PD
KRIS1965	Psychotic illness – no further detail
SLEDGE1996A	9% other – no further detail
Day hospital vs Outpatient care	
LINN1979	100% schizophrenia
MELTZOFF1966	91% schizophrenia, 4% affective disorders, no further detail
TYRER1979	No mention of PD
WELDON1979	100% schizophrenia
Transitional day hospital versus Outpatient care (on discharge)	
GLICK1986	No mention of PD

PD = personality disorder

We then undertook a search for any RCT in this topic area for any personality disorder. We searched electronic databases (see Table 6). Details of the search strings used are in appendix 7.

Table 111: Databases searched and inclusion/exclusion criteria for RCTs of services for people with a personality disorder

Electronic databases	MEDLINE, EMBASE, PsycINFO , CINAHL, Cochrane Library
Date searched	Database inception to March 2008
Update searches	None undertaken
Study design	RCT
Patient population	People with a diagnosis of any personality disorder according to DSM, ICD or similar criteria
Treatments	Assertive outreach, crisis resolution, CMHT, home treatment, partial hospitalistaion/day hospital, residential psychotherapy, inpatient psychotherapy, care planning, case management, service organisation, service delivery, health services
Outcomes	Any

No studies were found that were relevant. The GDG therefore developed a care pathway for people with borderline personality disorder based on expert consensus (see section 8.5).

8.3 Risk factors for sucide in people with borderline personality disorder

8.3.1 Introduction

Suicide attempts are a defining feature of borderline personality disorder and form part of the diagnostic criteria. It is distinct from self-harm which has a different pattern and purpose, for example, to relieve negative emotions. Self-harm is usually not intended to be fatal, for example, superficial cutting to the arms, although cutting can, of course, be serious. Suicide attempts, however, refer to acts which have suicidal intent.

A relatively large proportion of people with a diagnosis of borderline personality disorder complete suicide, with some estimates as high as 10% (Paris, 2004 – not great ref – anyone got better ones?) and 49% in inpatients (Fyer et al, 1988). However, identifying those at high risk is difficult.

8.3.2 Reviewing the evidence base

In order to make recommendations about specific treatments for people with borderline personality disorder the GDG asked the clinical question:

[we don't' have a CQ for this but added it into the additional info we wanted for the service questions]

The most appropriate research design to answer this is cohort studies, and therefore the evidence base reviewed comprised all available such studies undertaken in people in whom a diagnosis of borderline personality disorder has been made.

The summary study characteristics and descriptions of the studies are given in tables below but more information in available in appendix 16. Similarly, summary evidence profiles are given in tables below with the full profiles in

appendix 18 and the forest plots in appendix 17. Reviewed studies are referred to by first author surname in capitals plus year of publication. Full references for these studies are in appendix 16 rather than the reference list in this document for reasons of space.

8.3.3 Evidence search and overview of studies found

The electronic databases searched are given in Table 6. Details of the search strings used are in appendix 7.

Table 112: Databases searched and inclusion/exclusion criteria for studies of risk factors for suicide in people with borderline personality disorder

Electronic databases	MEDLINE, EMBASE, PsycINFO
Date searched	Database inception to August 2007
Update searches	March 2008
Study design	Cohort studies
Patient population	Adults over the age of 18 years with a diagnosis of borderline personality disorder according to DSM, ICD or similar criteria

Both studies specifically of people with borderline personality disorder and those including non-specific psychiatric diagnoses were included. Some studies included only those with a recent suicide attempt and some compared those with a suicide attempt with those without. A few studies were of adolescents, and these are reviewed in a separate section below.

Table 113 Summary study characteristics of studies of risk factors for suicide in people with borderline personality disorder

	General psychiatric populations or non-specific personality disorder	Studies of people with depression with and without comorbid BPD	Studies comparing suicidality in those with BPD and those without	Studies of people with BPD
No. trials (Total participants)	4 studies (1756)	2 studies (260)	1 study` (180)	5 studies (684)
Study IDs	(1) BARBER1998 (2) YEN2004 (3) YEN2005 (4) ZISOOK1994	(1) CORBITT1996 (2) SOLOFF2000	(1) BERK2007	(1) BRODSKY1997 (2) FYER1988 (3) LINKS2007 (4) PARIS1989 (5) SOLOFF1994
N/% female	(1) 135/ (2) 621/64 (3) 489 (4) 1000/52	(1) 102/55 (2) 158/65	(1) 180/57	(1) 214/unclear (2) 180/81 (3) 82/83 (4) 100/NA (5) 108/76
Mean age (or range if not given)	(1) 38 (2) ? (3) 18-45 (4) 34	(1) 18-64 (2) BPD 26; BPD + MDD 30; MDD 42*	(1) 34	(1) unclear (2 29 (3) 33 (4) NA (5) 27
Axis I/II disorders	(1) 40%MDD; 27% schizophrenia; 15% bipolar; 13% substance abuse; 4%other axis I; 79% no axis II disorder;	(1) 100% MDD; 29% BPD; 17% Cluster B (not BPD); 11% other PD (2) 20% BPD; 31% BPD + MDD; 49%	(1) 36%BPD	(1) BPD (2) BPD (3) BPD (4) BPD (5) BPD

	13% BPD; 8% other PD (2) 13% schizotypal PD; 26% BPD; 23% avoidant PD; 23% obsessive-compulsive PD; 15% MDD (control group) (3) PD (4) MDD 17%; dysthymia 10%; bipolar 4%; schizophrenia 15%; substance abuse 6%; anxiety 5%; BPD 7% (others not given)	MDD		
Setting	(1) Randomly selected general psychiatric admissions; US (2) [need background paper] (3) Outpatients or past patients (4) Allcomers at a psychiatric outpatient clinic; US	(1) Inpatients (2) Inpatients	(1) emergency department patients following suicide attempt	(1) Inpatients (2) Inpatients (3) Inpatients (4) Former outpatients (5) Inpatients
Suicidality	(1) 53% reported >= suicide attempt (2) 15.3% suicidal behaviour; 9.3% suicide attempt (3) 13% suicide attempt during 3-year follow-up period (4) 53% reported >= suicide attempt	(1) 90% of those with BPD had made a suicide attempt in the past (2) lifetime history of suicide attempts: 72% BPD only; 86% comorbid MDD; 35% MDD only	(1) >1 suicide attempt	(1) Details not given (2) 19% no history of suicidal behaviour; 32% had made suicidal gestures; 49% had made serious attempts (3) previous suicide attempt (50%) (4) completed suicide group (5) 70/81 admitted previous suicide attempt(s) (data not taken from all participants)

* Given by disorder because of significant difference; NA = not available

Studies which did not look at specific risk factors were excluded:

CHANCE2000 – psychodynamically-oriented study looking at relational patterns in inpatients with borderline personality disorder comparing those that had made a suicide attempt with those that had not: not relevant.

8.3.4 Studies of general psychiatric populations or non-specific personality disorder

Study descriptions

BARBER1998 – this is a US-based study of 135 people chosen at random from adult psychiatric admissions to a psychiatric division of a university medical

centre. The study aimed to collect information about aborted suicide attempts using a 30-minute semi-structured interview based on a questionnaire devised for the study. Diagnoses were determined from hospital records after discharge.

Factors which were statistically significantly associated with aborted suicide attempts included younger age (mean 35 years compared with mean 41 years) and borderline personality disorder.

YEN2004 – this is a 2-year prospective study of 621 people which is part of the Collaborative Longitudinal Personality Disorders Study (Gunderson et al, 2000). The study included people with a range of personality disorders and a control group of people with major depressive disorder and no personality disorder. The largest group had a diagnosis of borderline personality disorder and were the focus of this paper. Just over 15% of the sample (n = 95) reported suicidal behaviour and 9.3% (n = 58) made a suicide attempt. People with borderline personality disorder made up 79% and 78% of these groups.

The authors found that suicidal behaviour was predicted by affective instability, identity disturbance and impulsivity, but not by major depressive disorder, substance use disorder or childhood sexual abuse. Suicide attempts were predicted by affective instability and childhood sexual abuse.

YEN2005 – this study followed 489 participants for 3 years. All participants had a diagnosis of a personality disorder (schizoptypal; borderline personality disorder; avoidant; obsessive-compulsive) and were compared with a comparison group of people with major depressive disorder but no personality disorder. 61 people made a suicide attempt, 24 of whom made multiple attempts. All of these reported at least one negative life event, with those relating to love-marriage or crime-legal factors being positively associated with suicide attempts. The study did not give results for different personality disorders separately so it is unclear whether the findings apply specifically to people with a diagnosis of borderline personality disorder.

ZISOOK1994 – this is a US-based study of 1000 consecutive attendances at a psychiatric outpatient clinic. Participants' past suicidal behaviour was assessed using a self-report questionnaire. DSM-III-R diagnoses were made based on a psychiatric interview.

The study found that patients with borderline personality disorder and comorbid major depressive disorder (MDD) were most likely to have current thoughts of death, wishes to be dead, thoughts of suicide, and plans for suicide. Patients with borderline personality disorder were the most likely of all diagnostic groups to have made suicide attempts and, of those who made attempts, to have made the most attempts.

Clinical summary

These studies of general psychiatric populations or people with non-specified personality disorder confirm the higher prevalence of suicidal thoughts and attempts in people with borderline personality disorder compared with other psychiatric diagnoses. This helps to establish the diagnosis as a risk factor in itself. Also, negative life events seem to be related to suicide attempts in those with a personality disorder, particularly those relating to love-marriage or crime-legal factors.

8.3.5 Studies of people with depression with and without comorbid borderline personality disorder

Study descriptions

CORBITT1996 – this study recruited 102 patients with depression admitted to a university-based private psychiatric hospital in the US. All patients admitted to the hospital were screened for major depressive disorder (DSM-III-R) and those that met criteria were asked to participate in the study. Participants were aged between 18 and 64 years, with just over half being female. Mean baseline HRSD scores were 29.6 (SD 7.4). Axis II disorders were assessed towards the end of the admission period. Suicidality was assessed in a structured interview. Patients with comorbid borderline personality disorder and those without were then compared.

Compared with those with other personality disorders and those with no personality disorder, those with comorbid BDP were more likely to have made 3 or more suicide attempts and to have been younger when they made their first attempt. There were also more likely to have had a higher severity of suicidal ideation before the index hospitalisation (measured retrospectively), to have been younger at their first psychiatric admission, and to be women.

SOLOFF2000 – this was a study which recruited participants from consecutive admissions to an adult inpatient service including only those with a diagnosis of borderline personality disorder and/or major depressive disorder. Data on suicidal behaviour was collected using a semi-structured interview. The study included 158 people, 20% with borderline personality disorder, 31% with borderline personality disorder plus comorbid MDD, and 49% with MDD only. The MDD only group were significantly older than the other two groups (mean 41 years versus 26 years and 30 years respectively).

The group with comorbid borderline personality disorder and major depressive disorder had a higher number of lifetime suicide attempts than the other groups, although the difference was not statistically significant (lifetime history of suicide attempts: 72% borderline personality disorder only; 86% comorbid MDD; 35% MDD only). There were more attempts amongst all those with borderline personality disorder regardless of comorbidity compared with those with major depressive disorder only, and also reported their first suicide attempt at an earlier age.

Clinical summary

These studies show that a diagnosis of borderline personality disorder which is comorbid with major depressive disorder is itself a risk factor for making a suicide attempt.

8.3.6 Studies comparing suicidality in those with borderline personality disorder with those without

BERK2007 – this study examined patients who had made a recent suicide attempt (recruited in an emergency department) comparing those with a diagnosis of borderline personality disorder with those without. In all 180 people were recruited, of which 36% (n=65) had a diagnosis of borderline personality disorder. Baseline measures were taken up to 3 weeks after the index suicide attempt using both clinician-rated and self-rated measures, with psychiatric diagnoses made using SCID for DSM-IV. The trial was part of a randomised controlled trial of cognitive therapy (Brown et al, 2005).

The study found that those with a diagnosis of borderline personality disorder showed greater overall psychopathology than those without, including increased depression and hopelessness, and more axis I diagnoses, particularly bipolar I disorder and PTSD. In addition, this group had more psychiatric hospitalisations and had received more psychiatric treatment than those without a diagnosis of borderline personality disorder. They were also more likely to have experienced childhood physical and sexual abuse, and had more lifetime suicide attempts, and were more likely to report feelings of regret that the suicide attempt had failed. They also had poorer problem-solving skills.

8.3.7 Clinical summary

This study confirms that those with a diagnosis of borderline personality disorder who make a suicide attempt are likely to have greater psychopathology than others making a suicide attempt.

8.3.8 Studies of people with borderline personality disorder

Study descriptions

BRODSKY1997 – this is pooled data from two studies of newly admitted inpatients with borderline personality disorder in order to generate sufficient data to examine suicidality. Axis I diagnoses were determined using DSM-III-R based on structured clinical interviews, whilst axis II diagnoses were determined the Personality Disorder Examination in one study and DSM-III-R in the other. A detailed history of suicidal behaviour was taken.

The study reported that in people with borderline personality disorder impulsivity significantly and the presence of a history of abuse correlated with number of previous suicide attempts, when lifetime depression and substance abuse were controlled for.

FYER1988 – this study reported on 180 patients who were selected by reviewing the records of consecutive inpatients who had been given a diagnosis of borderline personality disorder. All data was collected by chart review.

The study found that 65% had a concurrent affective disorder, 70% concurrent substance use disorder, and 43% had dual diagnoses. In addition, 19% no history of suicidal behaviour, 32% had made suicidal gestures, and 49% had made serious attempts. Those with dual diagnoses had a higher rate of serious attempts and a lower rate of suicidal gestures than those with no concurrent diagnosis. Those with concurrent affective disorder tended to have a higher rate of serious attempts than either those with no concurrent disorder and those with a substance use disorder. Fewer of those with a concurrent substance use disorder, but no affective disorder, had made suicidal gestures compared with those with no concurrent diagnosis.

LINKS2007 – this study recruited participants with a diagnosis of borderline personality disorder who had made at least 2 suicide attempts (1 in previous 2 years) and followed them prospectively for one month. Potential participants were specifically excluded if the had current major depressive disorder, a psychotic disorder, active substance dependence, cyclothymia, or bipolar I disorder.

The study used Experience Sampling Methodology to sample subjective experience randomly using devices such as telephone bleepers and pagers to contact participants who were then asked to complete various measures. These included affective instability which was measured in various ways such as present or absent based on SCID-II affective instability item, and affect lability based on the subscale of the Dimensional Assessment of Personality Pathology-Basic Questionnaire. Suicide ideation was measured using the Scale for Suicide Ideation and suicide behaviour using the Suicidal Behavior Questionnaire.

The study found a positive correlation between that negative mood intensity and suicidal ideation and behaviour. [I can't understand this paper- needs someone else to read it]

PARIS1989 – this study of 100 patients from a 15-year follow-up study of people with borderline personality disorder. They were compared with 14 people who had completed suicide who had been part of the original study (and therefore had had a diagnosis of borderline personality disorder). The study used the Diagnostic Index for Borderlines (DIB) and collected demographic variables.

The study found no difference between the groups (those with completed suicide and those without) on the DIB sub-scales social adaptation, impulse-action, affects or interpersonal relations. It found that those who had completed suicide had lower psychosis scores, and had more previous suicide attempts. There was no significant difference in prevalence of affective disorder. The completed suicide group were more likely to have had higher education. There was not difference for sex, age, or marital status.

SOLOFF1994 – this was a study of inpatients who had a diagnosis of borderline personality disorder. The data relating to self-harm and suicidal behaviour was collected as part of a larger study. Data were collected in a semi-structured interview.

The study compared those who self-harmed with those that did not. It found that self-harm was significantly associated with younger age, and greater borderline personality disorder symptomatology. Self-harm was associated with greater suicidal ideation and recent suicide attempts. It did not find that results varied in the presence of major depressive disorder.

Clinical summary

These studies show the particular factors associated with sucidality in people with borderline personality disorder. These include impulsivity, presence of a history of abuse, comorbid affective disorder and dual diagnosis (affective disorder and substance use disorder). Self-harm was also associated with greater suicidal ideation and recent suicide attempts. Those completing suicide tend to have made more previous suicide attempts, and were more likely to have had higher education.

8.3.9 Overall clinical summary for risk factors for suicide

Given that suicidal ideation is a diagnostic criterion for borderline personality disorder, it is not surprising that borderline personality disorder itself is a risk factor for suicide attempts, particularly when comorbid with major depressive disorder. Those people who complete suicide who have a diagnosis of borderline personality disorder tend to have made more previous suicide attempts. Patients are likely to have greater psychopathology than other people who attempt suicide, including impulsivity, presence of a history of abuse, comorbid affective disorder and dual diagnosis (affective disorder and substance use disorder).

These findings suggest that the presence of comorbid affective disorders should be carefully assessed in patients with a diagnosis of borderline personality disorder. It may be appropriate to consider admission for patients with a diagnosis of borderline personality disorder following a suicide attempt, but the assessing clinician should consider that such a response might inadvertently increase the risk in the longer term by decreasing the patient's capacity to manage their own risk.

While risks to self and others must not be dismissed, it is also important to distinguish between long-term risks and acute ones. Failure to do so can lead to an exaggerated and inappropriate response to long-term risks, inconsistencies in the service that is offered, and may undermine a person's care plan. Following episodes of self-harm or a suicide attempt clinicians should follow existing NICE guidance (CG16).

8.3.10 Clinical practice recommendation

8.3.10.1 Healthcare professionals should use existing NICE guidance on self-harm (CG16) following episodes of self-harm or attempted suicide in adults and young people.

8.4 The role of inpatient services

8.4.1 Introduction

People with borderline personality disorder have been shown to be high users of inpatient services (Bender *et al*., 2001). However, despite frequent use of inpatient admissions in the management and treatment of people with borderline personality disorder the effectiveness of this as an intervention is uncertain. This is largely due to the lack of good quality evidence evaluating the impact inpatient care has on the outcome of borderline personality disorder.

8.4.2 Reviewing the evidence base

In order to make recommendations about the role of inpatient care in the treatment of borderline personality disorder the GDG asked two clinical questions:

What is the role of inpatient (acute, forensic) care in the management of people with borderline personality disorder?

Is long-term inpatient care in the treatment of borderline personality disorder effective?

8.4.3 Evidence search

Since there no randomised controlled trials comparing inpatient care with other forms of care in people with borderline personality disorder were identified in the general search for RCTs undertaken at the beginning of the guideline development process (described elsewhere, for example, chapter 6), we undertook an additional search for any primary research study. WThe electronic databases searched are given in Table 4. Details of the search strings used are in appendix 7.

Table 114: Databases searched and inclusion/exclusion criteria for studies of inpatient care

Electronic databases	MEDLINE, EMBASE, PsycINFO, CINAHL, Cochrane Library
Date searched	Database inception to August 2007
Update searches	March 2008
Study design	None specifiied
Patient population	People with a diagnosis of borderline personality disorder according to DSM, ICD or similar criteria
Topic	Inpatient care
Outcomes	None specified

Five studies were found, of which3 were included. See Table 115.

Table 115 Inpatient studies

	Inpatient studies
No. trials (Total participants)	5 studies
Study Ids	(1) ANTIKAINEN1992 (2) ANTIKAINEN1994 (3) ANTIKAINEN1995
N / % female	(1) 66/42 (2) 66/44 (3) 62/40
Mean age	(1) 32 (2) 32 (3) 36
Setting	(1) inpatients, Finland (2) inpatients, Finland (3) inpatients, Finland

Two studies were excluded because they did not contain any data:

JAKUBCZYK2001 – this is a discussion paper which describes principles of functioning in an adolescent unit and some of the issues that arise in this setting.

JONES1989 – this paper describes a conceptual model for integrating psychodynamically oriented inpatient treatment with systems-oriented treatment of the patient's family and illustrates the application of this model with a case study.

8.4.4 Review of inpatient studies

Study descriptions

ANTIKAINEN1992 – this study, carried out in a specialised psychiatric ward of a hospital in Finland, reported the impact of an inpatient programme on depression and anxiety symptoms in 66 patients. There were 38 male and 28 female inpatients with a mean age of 32 (range 15-56 years). The authors report that 32% had a diagnosis of borderline or other personality disorder. The treatment programme consisted of dynamic psychotherapy and psychopharmacological treatment. Patients received 45 minute individual dynamic psychotherapy and group therapy sessions twice a week. In addition psychotropic drugs were used in accordance with clinical practice. Patients

were in hospital for an average of 88 days (range 21-296 days) and participated in an average of 25 therapy sessions during this period. The authors report significant reductions in anxiety, depression and other psychiatric symptoms including suicidal thoughts.

ANTIKAINEN1994 – this study was carried out in a psychiatric ward of a hospital in Finland specialised in the psychotherapeutic treatment of borderline personality disorders. The study aimed to identify factors predicting the outcome of psychiatric hospital treatment in 66 patients. There were 37 male and 29 female inpatients with a mean age of 32 (range 15-56 years). Participants' baseline diagnoses are not reported, however authors report that at the end of treatment 29% of participants had a personality disorder diagnosis. The treatment programme consisted of individual and group therapy sessions twice a week, including family members when necessary, ward meetings, committees and creative activities. Psychotropic medication was also used in accordance with clinical practice. Patients were in hospital for an average of 88 days (range 21-296 days). The outcome reported in this study was depressive symptoms as measured by the BDI and HDRS. A significant association was found between 14 variables and the outcome of treatment. For example, a good outcome was associated with suicidality and tension expressed by the patient on admission, whereas a poor outcome was associated with expressed delusions. The authors also report that participants taking benzodiazepines showed a better outcome as measured by the BDI and HDRS.

ANTIKAINEN1995 – this study reports a 3 year follow-up of inpatients treated on a psychiatric ward in Finland specialised in the psychotherapeutic treatment of borderline personality disorder. 62 patients were included in this study, 37 male and 25 female, with a mean age of 36 years at baseline. The authors report that 32% of patients were diagnosed with borderline or other personality disorder. The treatment programme consisted of individual and group therapy sessions twice a week, including family members when necessary, ward meetings, committees and creative activities. Psychotropic medication was also used in accordance with clinical practice. Patients were in hospital for an average of 91 days (range 21-296 days). This study reports the long-term effectiveness of inpatient treatment on symptoms of depression and anxiety. 42 participants completed the 3 year follow-up assessment. The authors report a significant decline in symptoms of depression and anxiety at discharge, as measured by the BDI and HDRS, which was maintained at follow-up.

Clinical summary

It is difficult to draw any concrete conclusions and make any firm recommendations based on the findings of the above studies. All of the papers reviewed evaluate a specialist inpatient treatment for people with borderline personality disorder. This evidence comes from one treatment programme in Finland. It is therefore different from many standard inpatient

units in the United Kingdom. The studies used symptoms of depression and anxiety as their main outcome variable and it is impossible to determine whether that the intervention was effective at treating borderline personality disorder. The lack of a comparison control group compounds the problem.

To date the literature on inpatient treatment for borderline personality disorder is based largely on expert opinion. Several experts have not only dismissed the therapeutic impact that non-specialist hospitalization has on borderline personality disorder but have gone as far as suggesting that inpatient admission actually have a negative outcome (Paris, 2004, Krawitz and Watson, 2000). Despite this being an intuitive argument other experts have cautioned against this assumption, as there is no conclusive evidence to suggest that hospitalisation is harmful (Bateman and Tyrer, 2004). There is, however, general expert consensus within the literature that long admissions in standard psychiatric inpatients units are unlikely to be helpful in the treatment of borderline personality (Krawitz and Watson, 2000, Bateman and Tyrer, 2004, Fagin, 2004). The expert consensus view proposes that if non-specialist inpatient units are needed then they should be brief and focus on crisis management (Fabin, 2004). There is some empirical evidence that tentatively suggests that brief planned admissions are, at least no more harmful than standard treatment (Van Kessel, Lambie and Steward, 2002).

There is little empirical evidence to draw on to answer the clinical questions regarding inpatient care. There is no evidence that long-term hospitalisation if effective in the treatment of borderline personality disorder. There is also no evidence to support the assumption that admission to hospital is harmful for people with borderline personality disorder. The scant evidence and expert opinion suggests that most effective treatment of borderline personality disorder occurs in outpatients settings and if hospitalisation is required it is for crisis management and treatment of clinical symptoms rather than the treatment of borderline personality disorder. Admission to inpatient units is further considered in the section on the care pathway below.

8.4.5 Clinical practice recommendations

Clinical practice recommendations relating to admission follow the relevant section in the care pathway below.

8.5 Care pathway

8.5.1 General principles to be considered when working with people with borderline personality disorder

Experiences of people with borderline personality disorder, their relatives and friends, and those of healthcare professionals, suggest that in addition to the type of interventions that are offered, careful consideration also needs to be given to the manner in which these are delivered. The general principles outlined here aim to promote a constructive therapeutic relationship and

balance efforts to meet a person's needs while promoting self-efficacy. These general principles are important throughout primary, secondary and specialist services.

Active participation

People with borderline personality disorder often find it hard to cope at times of crisis, and may look to others to take responsibility for their needs. While service providers may feel under pressure to try to do this, this approach may inadvertently undermine a person's limited capacity to care for themselves. It is therefore important to try to ensure that people with borderline personality disorder remain actively involved in finding solutions to their problems, even during crises.

An assumption of capacity

While people with borderline personality disorder may struggle to make informed choices, especially at times of crisis, efforts to coerce a person to do what others feel is in their best interests may also undermine a person's limited self efficacy. Instead, it may be helpful for formal and informal carers to encourage the person think about the options they have and consider the impact of the choices they make on themselves and others.

Being consistent and reliable

People with borderline personality disorder may find it difficult to trust and engage with others, possibly because of previous experiences of neglect or abuse. Therefore, a consistent approach by service providers is essential to providing a sound basis for delivering help and support. Being reliable, for instance, by doing what you say you will do and avoiding false assurances or promises, may help to build trust, contain anxiety and support the development of a therapeutic relationship. Conversely, making changes to the service a person receives, such as cancelling appointments or changing a key worker without sufficient notice, may provoke a deterioration in mental health.

Teamwork and communication

Many people with borderline personality disorder try to cope with inter-personal difficulties by seeing people in extreme terms - for example, as either trustworthy or untrustworthy, or as either wholly good or wholly bad. This can make it difficult to deliver a consistent treatment approach between different healthcare professionals either working in different teams or within the same team. Regular communication between those involved in providing services can help guard against this tendency to 'split' and help ensure that a coherent service is delivered.

Complex treatment programmes are delivered by a team of mental health professionals. So, effective teamwork is important in this context. People with borderline personality disorder are emotionally challenging and disagreements in the team may become polarised making it hard for

individuals not to blame each other for management or treatment difficulties. In this circumstance, leadership of a team is essential. Leadership is given rather than taken or assumed, for example because of professional identity. The qualities of a good leader are not specific to any one professional group. Leadership requires a willingness on the part of a team to assign the responsibility of leadership to a member of the team whom they collectively respect as well as that member being willing to undertake the leadership role. The natural tendency for team members to want to make an individual contribution has to become sub-dominant to the team itself. In order to achieve this, development of an iterative process is necessary in which the team move towards a consensus about clinical decision making structures, support mechanisms, risk management (including regular review that the team have not been inoculated against risk of become overly risk averse), levels of supervision and training requirements, and overall patient care.

Realistic expectations

People with borderline personality disorder tend to experience gradual rather than sudden improvement in symptoms. Therefore, helping service users set realistic short- as well as long-term goals may help them see that progress is possible. Equally mental health professionals need to accept a realistic rate of change.

8.5.2 Clinical practice recommendations

8.5.2.1 Healthcare professionals should work in partnership with people with borderline personality disorder with the aim of developing their autonomy and encouraging choice by:

- ensuring that individuals remain actively involved in finding solutions to their problems, even during crises
- encouraging individuals to consider the different treatment options and life choices available to them, and the consequences of the choices they make.

8.5.2.2 Teams working with people with borderline personality disorder should regularly review their tolerance and sensitivity to working with risk. This should be reviewed annually (or more frequently if a team is regularly working with people with high levels of risk).

8.5.3 Primary care

Rather than being involved in the identification or diagnosis of borderline personality disorder, those working in primary care are far more likely to see people who have already received this diagnosis following contact with mental health services. In addition to attending to the physical health needs of people with borderline personality disorder, primary care workers may encounter those with this disorder when they present with emotional distress, episodes of self harm and psychosocial crises. An awareness of borderline personality disorder and the principles that underpin its management may

help primary healthcare services to contain a person within a primary care setting and also guide decisions about when to refer to secondary care.

Awareness of borderline personality disorder

People with borderline personality disorder may present to primary care with emotional distress, including anxiety, fear of abandonment, and feelings of emptiness. Other indications of the disorder include recurrent presentations with psychosocial crises, long-standing suicidal ideation, repeated self harm, and marked interpersonal problems with reduced social functioning. In addition to helping guide the management of people with borderline personality disorder, an awareness of this disorder may help ensure that inappropriate strategies such as polypharmacy are avoided. Many people with borderline personality disorder, experience other intra-psychic and interpersonal problems such as impulsivity, sensitivity to criticism, and dependence on others; these factors can readily lead to unnecessary and sometimes risky prescription of drugs.

8.5.4 Clinical practice recommendation

8.5.4.1 If a person presents in primary care with repeated self-harm, persistent risk-taking behaviour or marked emotional instability, healthcare professionals should consider referral to community mental health services for assessment for borderline personality disorder. If the person is younger than 18 years old they should be referred to CAMHS for assessment and treatment.

Assessment

Assessment of people with borderline personality disorder is challenging because it can be difficult to interpret marked fluctuations in mental state that many people experience. Consequently, more than one meeting is generally required. Collateral information from family members or significant others can help to develop a better understanding of the inter-personal problems experienced by people with this disorder.

People with borderline personality disorder experience high levels of emotional distress, including symptoms of anxiety and depression, and fluctuations in mental state. The fluctuating nature of a person's mental distress can help distinguish this condition from other mental disorders.

People with borderline personality disorder have high rates of other mental health related problems, such as eating disorers and substance misuse, and a full assessment is important in order to identify further treatment. If a person with borderline personality disorder appears to have several comorbid disorders, it may be helpful to refer them for a special opinion and treatment plan that addresses the person's core difficulties. Care is required to avoid offering inconsistent and incoherent treatment.

When assessing risk it is important to include specific enquiry about self-harm and suicidal ideation. Risk posed to others is less frequent, but impulse aggression and violence can sometimes occur. The welfare of dependent children should also be considered.

Assessment of precipitating factors that may have led to deterioration in mental health may reveal important factors in the person's social environment which are amenable to change. By enquiring about such precipitants people with borderline personality disorder may be helped to consider actions that they might take to try to reduce the likelihood of future crises.

The way that someone with borderline personality disorder reacts to primary care workers and the feelings that workers have about the person (such as frustration and anger or hoplessness) may provide helpful insights into the interpersonal problems that the person with borderline personality disorder experiences in other settings.

Management

People with borderline personality disorder may present to primary care in crisis. At such times a person's coping strategies may be at their most fragile. Enquiring about whether the person has experienced previous similar episodes and trying to find out how the person managed to get through these may be helpful. If the person is living with a family member, partner, or other person, obtaining consent to discuss the situation with them and involving their help may alleviate a crisis and reduce long term risk.

Social problems such as housing or financial difficulties may play a central role in maintaining a person's mental distress and providing information about how a person can access social services and other sources of advice, such as Citizens Advice Bureau or debt counselling may be of considerable value.

While pressure from the service user to 'do something' may lead to consideration of prescribing medication, crises are not good moments in which to start a new long term prescriptions for psychotropic mediation. Encouraging service users to identify and implement small changes that can help them get through the crisis are indicated (see chapter 7).

The offer of a follow-up appointment within the coming few days may contain the person's anxiety and help ensure to reassure them that others are willing to help them through a crisis.

A clearer picture of the precipitants of a crisis may emerge during a follow-up meeting. This meeting can also provide a good opportunity for helping the person consider how they might avoid a future crisis and what they can do to try to cope better when these occur.

8.5.5 Clinical practice recommendation

8.5.5.1 When a person with an established diagnosis of borderline personality disorder presents to primary care in a crisis, healthcare professionals should:

- assess the current level of risk
- enquire about previous similar episodes and successful management strategies used in the past
- help to manage the person's anxiety by enhancing coping skills and helping them to focus upon the current problems
- encourage the person to identify manageable changes that will enable them to deal with the current problems
- offer a follow-up appointment at a time agreed with the person.

When to refer

Most people with borderline personality disorder can be managed within primary care, and isolated crises do not in themselves indicate a need for referral to secondary care services. Some people with borderline personality disorder have contacts with multiple services, and consideration should be given to support which is already being provided before they are referred to another service.

Referral to secondary care should be considered when there is uncertainty about diagnosis.Specific indicators include repeated self-harm, persistent risk-taking and marked emotional instability. Risk of harm to self or others is an important indication for referral to secondary care services (see also the NICE self-harm guideline (GC16)). When the diagnosis is established and the person is motivated to change, consideration should be given to direct referral to psychological treatment services.

Where dedicated personality disorder services exist they should be able to provide advice and support for those working with people with personality disorder in primary care. They may also be willing to take referrals directly from primary care, without the need for assessment by generic mental health teams.

8.5.6 Clinical practice recommendation

8.5.6.1 Primary healthcare professionals should consider referring a person with an established or suspected diagnosis of borderline personality disorder who is in crisis to a community mental health service when:

- levels of distress and/or risk of harm to self or others are increasing
- levels of distress and/or risk have not subsided despite attempts to reduce anxiety and improve coping
- further help from specialist services is requested by the person.

8.5.7 Emergency medical services

People who repeatedly present to emergency medical services following self-injury and other forms of self-harm are likely to have borderline personality disorder. Awareness of this disorder and of the availability of local services is therefore important. An assessment based on history and mental state examination should include assessment of comorbid mental health disorders and substance misuse problems and may be enhanced through interviewing a family member or significant other. Psychological treatments for people with borderline personality disorder may be helpful in the management of repeated self-harm (See Chapter 5). See the NICE self-harm guideline for recommendations on the treatment and management of self-harm in emergency departments (NICE, 2004).

8.5.8 Secondary care

Secondary care services are well placed to assess the extent of interpersonal problems experienced by a person with borderline personality disorder and assess their mental health and social needs. They should also be able to provide psychologically-informed management of the person's problems and work with the service user to design and implement an appropriate care plan. Where indicated, secondary care services can facilitate referral to psychological or specialist personality disorder services and may be able to support the work of such services by coordinating care and providing additional support at times of crisis. Community mental health service, such as community mental health teams, should be responsible for routine assessment, treatment and management of people with borderline personality disorder.

Assessment

When assessing for borderline personality disorder in secondary care it is important to take a full history, which may need to include an assessment of comorbid mental disorders such as substance misuse and eating disorders. A full assessment of personality functioning, coping strategies, strengths and vulnerabilities should be included.

The assessment process can be distressing for the service user. Therefore, it is important that questioning about early childhood is handled sensitively as it may reveal experiences of neglect or abuse, and that support is provided to the service users during this process. Similarly care should be taken when discussing diagnosis. Widespread misunderstanding of the label 'personality disorder' means that some services prefer to use other terms, such as 'interpersonal problems' and 'complex cases'to describe this condition. Where the term borderline personality disorder is used, time needs to be taken to explain its meaning, the available treatment options and the prognosis.

Useful questions to use when assessing the difficulties of a person with borderline personality disorder are listed in Text Box 4. The quality of an

assessment can be enhanced by conducting more than one interview and by obtaining collateral information from a person who knows the service user well. The assessment should also take into account the possible risks posed to self and others, including the welfare of dependent children (see below).

Text Box 4 Questions to consider when assessing someone who may have borderline personality disorder.*

1. The presence of suicidal ideation and or repeated self-harm
   "Do you ever think that you do not care whether you live or died/ feel that life is not worth living?"

2. Tendency to form intense unstable relationships
   As evidenced by personal, marital and psychosexual history

3. Fear of abandonment
   Established through asking questions about relationships that have ended and steps taken by the service user to try to prevent this from happening

4. Emotional labile
   "Do you experience big changes in your emotions and the way that you feel or do you generally keep on an even keel?"

5. Poor sense of self
   As evidenced by frequent changes in appearance and/ or behaviour

6. Impulsiveness
   "Are you someone who likes to take time and weigh up the options before making a decision or do you often act on the spur of the moment"

7. Emptiness and boredom
   "How easy do you find it to occupy your self? Do you ever experience feelings of emptiness or boredom?"

8. Problems coping with crises
   "When was the last time you were in crisis? How did you try to cope with the problems that you faced at this time?"

* Note: It is important to assess the presence of borderline personality disorder in the context of personality as a whole. This should include questions about personal strengths as well as weaknesses and be based on a full history and mental state examination.

In order actively to involve the person in their management, it is important that the assessment includes information about how the service user sees their problems and possible steps that the service user can take to manage them.

8.5.9 Clinical practice recommendations

8.5.9.1 Community mental health services (community mental health teams, related community-based services, and tier 2/3 services in CAMHS) should be responsible for the routine assessment, treatment and management of people with borderline personality disorder.

8.5.9.2 When assessing a person with possible borderline personality disorder in community mental health services, healthcare professionals should conduct a full assessment of:

- personality functioning, coping strategies, strengths and vulnerabilities
- comorbid mental disorders and social problems
- need for psychological treatment, social care and support, and occupational rehabilitation or development.

A comprehensive care plan should be developed.

Risk management

Because people with borderline personality disorder often experience suicidal ideation, it is important to distinguish acute from chronic risks. Suicidal ideation and self harm may arise for a variety of reasons. They may represent an attempt to manage unbearable feelings, to end a dissociated state, to elicit care, to express anger and punish someone, or as an attempt to end life. Chronic risks refer to the long term risk of self-harm and suicide inherent in people with borderline personality disorder. Acute risks are those which may arise in the context of crises and further increase the risk of suicidal behaviour. A chronic risk may be made acute by the response of services. Patients may be at more risk when they experience practitioners as giving up particularly if this is at the end of a series of attempts to help them.

In addition to self-harm, people with borderline personality disorder may undertake other high risk behaviour such as evoking negative responses from others or high risk sexual behaviour. It is important that these risks are identified and the level of risk posed to the service user and others assessed. Risk assessment should always be undertaken in the context of a needs assessment.

Factors which may trigger heightened risk to self or others should be documented, as part of a risk management plan which should be shared with others involved in the person's care. It is important to actively involve the person in the development of this plan, for instance by helping them try to identify alternatives to high risk behaviour and to think about the consequences of their actions. Efforts to persuade or coerce the person into

pursuing an alterative course of action may be counterproductive. The plan should address both long-term and acute risks and be explicitly related to the overall treatment plan to ensure continuity and coherence.

Because risk factors and triggers vary between individuals, it is important that a clinician is cautious when assessing a service user who is not well known to them. It is also important to avoid being over-controlling or dismissive, and to underestimate the seriousness of the risk, particularly in service uers who undergo frequent suicidal crises. It is, therefore, also important to involve other clinicians in managing risk, as well as the sevice user. Team working is very important, and should be supported by adequate supervision.

8.5.10 Clinical practice recommendations

8.5.10.1 Risk assessment in people with borderline personality disorder should:

- be undertaken in the context of a needs assessment
- differentiate between long-term and acute risks for the individual
- identify the risks posed to self and others, including the welfare of dependent children.

8.5.10.2 Healthcare professionals should explicitly agree the risks being assessed with the person with borderline personality disorder and collaboratively develop risk management plans for them that:

- address both the long-term and acute risks
- are explicitly related to the long-term treatment strategies
- take account of changes in personal relationships including the therapeutic relationship.

8.5.10.3 When managing risk in people with borderline personality disorder, healthcare professionals should:

- be cautious when evaluating risk if the person is not well known to the healthcare professional
- involve other members of the healthcare team in order to assess the seriousness of the risk, especially in the context of frequent suicidal crises
- ensure that risk is managed by a multidisciplinary team with adequate supervision arrangements, especially for team members who have less experience.

Management

Psychologically-informed management involves helping a person with borderline personality disorder reach a better understanding of their emotions and feelings, and develop healthy coping strategies. Encouraging the person to make changes to their occupational activities and social environment could help to mitigate the impact of their difficulties. For

instance, helping someone to identify and pursue pleasurable activities may be a start to helping them to counter chronic feelings of emptiness or low self-esteem

When developing a care plan it is important to involve the service user with support and advice from a multi-disciplinary team. It is useful to include a crisis plan in which triggers for crises and steps that service users can take at these times are specified. In preparing the care plan it is also helpful to set short- and long-term goals that the service user would like to achieve. It is important that these goals are realistic and that the steps that the service user and others may need to take in order to try to achieve these goals are clearly specified. In order for service providers to help ensure that the services provided are appropriate for the service users needs, the care plan needs to be regularly reviewed (reviews may benefit from including significant others where the service user agrees to this).

People with borderline personality disorder may be in contact with a variety of health and social care professionals as well as people working in voluntary sector organisations. Because service users may sometimes try to manage the difficulties they have with interpersonal relationships through 'splitting' (seeing people as entirely good or entirely bad), it is helpful to have regular review meetings to bring all those involved in the care plan together. Professionals also need to be aware of their own tendency to 'split' from other professionals, services or from the carer or person with borderline personality disorder, and to ensure collaborative working relationships with all involved in the care of the person with the disdorder. Through sharing information and agreeing a care plan the disruption that splitting can result in can be minimised.

In the light of these concerns it is important that when more than one service is involved in the provision of care for people with borderline personality disorder, and especially when psychological treatments have also been initiated, that the enhanced care programme approach is used to ensure effective coordination of services and to reduce the unhelpful tendency towards splitting.

8.5.11 Clinical practice recommendations

8.5.11.1 Teams working with people with borderline personality disorder should develop comprehensive multidisciplinary care plans in collaboration with the service user and their carers, where agreed with the person. The care plan should:

- clearly identify the roles and responsibilities of all health and social care professionals
- identify manageable short-term treatment aims and specify steps that the person and others may take in order to achieve them

- identify long-term goals that the person would like to achieve, which should underpin the overall treatment strategy; these goals should be realistic, and linked to the short-term treatment aims
- develop a crisis plan that specifies potential triggers that could lead to a crisis, identifies self-management strategies likely to be effective and establishes an agreed plan for accessing services (including a list of support numbers for out-of-hours teams and crisis teams) when self-management strategies alone are insufficient.

8.5.11.2 All healthcare professionals working with people with borderline personality disorder should ensure that treatment and service delivery are well integrated. The enhanced CPA should be used when individuals are routinely in contact with more than one service.

The management of comorbidities

Comorbidity of major psychiatric disorders in borderline personality disorder is widely reported in the literature with mood disorders, anxiety disorders, eating disorders, and drug/alcohol dependence being particularly common. This may lead to problems in diagnosis as some of the features of these disorders seem to be inextricably linked to those of personality disorder. In general terms, psychiatric symptoms show particular characteristics when they are linked to borderline personality disorder compared with how they are expressed in independent psychiatric disorders. They tend to be short-lived and can fluctuate rapidly, they are likely to occur primarily in the context of interpersonal stress, and they respond swiftly to structured interventions, such as admission or other environmental modification. The diagnosis of both borderline personality disorder and a comorbid disorder should therefore be reviewed before treatment is initiated, particularly if any diagnosis was made during an emergency presentation.

Any psychiatric symptoms that are integral to borderline personality disorder should be treated as part of that disorder. However, if a comorbid disorder is present, clinicians should assess the severity of the comorbid disorder and follow the appropriate treatment guidelines for the disorder. Patients with comorbid Axis I and Axis II disorders should receive best treatment for both disorders. The treating clinician may need to consider referral to another clinician/service for appropriate treatment of the comorbid disorder depending on his own training and experience, the context of treatment for borderline personality disorder, and the severity and type of the comorbid disorder. For example patients with borderline personality disorder comorbid with a major psychosis or substance dependence on Class A drugs or severe eating disorder are likely to require additional expertise if they are to have the best chance of improvement. Under these circumstances clinicians are advised to ensure appropriate arrangements are made for co-ordinated care with agreement on responsibilities and roles. If a comorbid disorder is diagnosed in the initial assessment of a person with borderline personality disorder, it may be most appropriate to refer them for treatment for the Axis I disorder

before commencing treatment for borderline personality disorder. However, if a person is already engaged in treatment for borderline personality disorder and a comorbid Axis I disorder develops or becomes apparent during the course of treatment, a care co-ordinator should keep in contact with the person while they are receiving treatment for the Axis I disorder so that they can continue with treatment for borderline personality disorder when appropriate.

The situation is more complex if the comorbid disorder includes predominant depression, PTSD, or anxiety symptoms. In many patients these problems are best treated within a psychotherapeutic treatment programme for borderline personality disorder itself and no additional psychotherapy offered. If medication is required integrating prescribing within the treatment programme may prevent inappropriate prescription of drugs.

8.5.12 Clinical practice recommendations

8.5.12.1 Before starting treatment for a comorbid condition in people with borderline personality disorder healthcare professionals should review:

- the diagnosis of borderline personality disorder and the comorbid condition especially if either diagnosis has been made during a crisis or emergency presentation
- previous and current treatments to identify those that are ineffective; ineffective treatments should be discontinued.

8.5.12.2 Healthcare professionals should consider treating comorbid depression, post-traumatic stress disorder or anxiety within a well-structured treatment programme for borderline personality disorder.

8.5.12.3 Psychological and/or drug treatments may be considered for people with borderline personality disorder to treat comorbid conditions. Healthcare professionals should follow the appropriate NICE guideline for the comorbid condition.

8.5.12.4 Healthcare professionals should consider referral to the relevant service for people with borderline personality disorder who also have major psychosis, dependence on alcohol or Class A drugs, or a severe eating disorder. A care coordinator should keep in contact with people already engaged in treatment for the comorbid condition so that they can continue with treatment for borderline personality disorder when appropriate.

Discharge to primary care

Fears of abandonment and previous experiences of unsatisfactory endings mean that many people with borderline personality disorder find endings especially hard. Therefore when discharging a service user back to primary

care services, it is important that time is taken to discuss this well in advance with service users, and where available, their significant others. The decision about when to refer back to primary care will depend on the severity of the person's disorder, the presence of comorbid axis I disorder, the level of social functioning, and the response to input from secondary care. When considering discharge it is useful to agree a care plan beforehand specifying the steps the service user can take to try to manage their distress and cope with future crises. This should be communicated to the primary care clinician.

8.5.13 Clinical practice recommendation

8.5.13.1 When discharging a person with borderline personality disorder from secondary care to primary care, healthcare professionals should discuss the process in advance with the person, and wherever possible, their carers. A care plan should be agreed beforehand and communicated to the primary care clinician specifying the steps the individual can take to try to manage their distress, how they can cope with future crises and how they can re-engage with community mental health services if needed.

Referral for psychological treatment

When considering referral for psychological treatment, it is important to consider all those with borderline personality disorder, but not all should be referred. Factors to be considered when making this decision are the views of the service user, the severity of the person's disorder, and the extent of use of their use of other services. Service users' views are paramount. Ideally the service user should have some understanding of the nature of their problems, a desire to engage in psychological treatment and an ability to think about what they would like to try to achieve with the help of treatment. In reality many service users have ambivalent feelings about using psychological treatment andthose delivering psychological treatments to people with this condition will be used to working with this ambivalence. Service users should be given written material about the treatments being considered and their effectiveness to help in making an informed decision. Referral of those with high levels of disturbance and poor motivation to change may therefore still be indicated.

For people with lower levels of disturbance and higher levels of social functioning developing a better understanding of the steps they can take to resolve their problems without prolonged input from services may be preferable. The opinion of those providing psychological treatments may be helpful in making a decision about whether or not to refer. It would be helpful for those providing psychological treatments to make sure that they can assist in this way and are able to offer clear information to the service user about the process of referral. Unrealistic expectations about what will be provided or what psychological treatments can achieve can often be

unhelpful. A new care plan may be agreed which details the service user's role and responsibilities, as well as those of care providers.

It is also important to be aware that service users may find the assessment process distressing, therefore it may be beneficial if arrangements for support during this period were agreed in advance of the referral. Once the assessment has been completed a new care plan may be agreed which specifies the role and responsibilities of the service user, those delivering psychological treatment and other health and social care providers.

8.5.14 Clinical practice recommendations

8.5.14.1 When considering psychological treatment for any reason for a person with borderline personality disorder, and to ensure that properly informed consent can be given, healthcare professionals should give the individual written material about the treatment model and the evidence for its effectiveness in the treatment of borderline personality disorder, and should offer the opportunity to discuss this. For people who have reading difficulties, alternative means of presenting the information should be considered, such as video.

8.5.14.2 When considering psychological treatment for a person with borderline personality disorder healthcare professionals should take into account the following factors:

- individual choice and preference
- degree of impairment and severity of the disorder
- frequency and extent of service use by the person
- the person's willingness to engage with therapy and their motivation to change
- the person's ability to remain within the boundaries of a therapeutic relationship
- personal and professional support.

8.5.14.3 When a decision has been made to refer a person with borderline personality disorder for assessment for psychological treatment, healthcare professionals should ensure that the individual is provided with support during the period of referral, and that arrangements for support are agreed in advance by the referring team and the service user.

8.5.14.4 When a decision has been made to provide psychological treatment to a person with borderline personality disorder as a specific intervention in their overall treatment and care, healthcare professionals should use the enhanced CPA to ensure clarity of roles among different services, professionals providing psychological treatment and other healthcare professionals.

Role of drug treatment

Considerations and recommendations about the role of drug treatment are described in the chapter on the pharmacological treatments for borderline personality disorder. Service users should be given written material about the treatments being considered and their effectiveness to help in making an informed decision.

8.5.15 Clinical practice recommendations

8.5.15.1 When considering drug treatment for any reason for a person with borderline personality disorder, and to ensure that properly informed consent can be given, healthcare professionals should give the person written material about the drug and the evidence for its effectiveness in the treatment of borderline personality disorder and comorbid conditions, and should offer the opportunity to discuss this. For people who have reading difficulties, alternative means of presenting the information should be considered, such as video.

The role of psychological treatment

Please refer to Chapter 5.

Use of inpatient services

Whilst every effort should be made to avoid admission to inpatient units, circumstances may arise when a period of inpatient is indicated. These circumstances include diagnostic uncertainty, and the short-term management of acute risk. Diagnostic uncertainty may arise when a marked affective component or evidence of psychotic symptoms suggests that there may be an axis I disorder that needs treatment. When problems are so severe that further assessment cannot be undertaken safely in the community, it may beneficial to consider an inpatient assessment. Service uers should be referred to a crisis resolution and home treatment team when admission is being

considered.

While inpatient treatment is not suitable for the treatment of chronic risks associated with borderline personality disorder there may be circumstances in which acute risks cannot be safely managed in a community setting. As with other aspects of service delivery for people with borderline personality disorder, it is important that service users are actively involved in decisions about the use of inpatient treatment and where possible the admission planned and the length of the admission agreed in advance. In keeping with the aim of actively involving service users in their management, admission to hospital on a voluntary basis is preferable. A decision to treat the person against their will may undermine their fragile ability to look after themselves. Where compulsory treatment is used in extreme circumstances, it is vital that management on a voluntary basis is resumed at the earliest opportunity. Service users who experience recurrent admissions should have a care programme review.

8.5.16 Clinical practice recommendations

8.5.16.1 Before considering admission to an acute psychiatric inpatient unit for a person with borderline personality disorder, healthcare professionals should refer the individual to a crisis resolution and home treatment team first.

8.5.16.2 People with borderline personality disorder should only be considered for admission to an acute psychiatric inpatient unit for:

- the management of crises involving significant risk to self or others that cannot be managed in other service contexts, or
- detention under the Mental Health Act.

8.5.16.3 When inpatient care is being considered for a person with borderline personality disorder, healthcare professionals should actively involve the person in the decision and:

- agree the length of the admission in advance
- ensure that where, in extreme circumstances, compulsory treatment is used, management on a voluntary basis should be resumed at the earliest opportunity.

8.5.16.4 Healthcare professionals should arrange a formal CPA review for people with borderline personality disorder who have experienced two or more admissions in the previous 6 months.

Support for service providers and reflective practice

It is important that those involved in providing secondary care services to people with borderline personality disorder have an opportunity to reflect on their practice. Reflective practice may be enhanced through independent supervision from a person not directly involved in the day-to-day workings of

the team. Those providing supervision need to encourage reflection on the impact the work has on the practitioner and whether he or she is responding in ways that are counter-therapeutic.

8.5.17 Specialist services

Introduction

A number of specialist services for people with personality disorder have been established following an initiative from the Department of Health (2003), which carries the expectation that all Trusts will develop expertise in this area of work. Specialist personality disorder services are based on the same general principles for working with personality disorder described above, but have additional expertise. Nonetheless, where such services are available, decisions about referral should follow the principles outlined above in the section on referral to psychological treatment.

Current practice

Many trusts now have specialised personality disorder services which receive most of their referrals from other services within the same trust (i.e. they are tertiary services). Many other trusts have no such specialised services, and people with personality disorder then have access either to general secondary services or, if secondary services cannot cope, they tend rely upon regional or national services, including therapeutic communities such as the Henderson Hospital or forensic services. For those within secondary care, they will be in receipt of the usual range of services (community based, out-patient, day patient and in patient services). In any event, only a small minority of those with borderline personality disorder are treated outside community mental health teams. In fact, roughly 40% of the people who use CMHTs have a diagnosis of personality disorder, and many of those will have a diagnosis of borderline PD.

Consequences of current service arrangements

Because the numbers of those with borderline personality disorder are high and other placements are few most of those with the condition are treated in general community and in-patient services. Even where trusts have developed specialist services for people with personality disorder, it is likely that the mainstay of treatment for people with borderline (or other) personality disorder will be the community mental health services.

There is no doubt that the anxieties and uncertainties of mental healthcare professionals who have not been trained to evaluate or work with people with borderline personality disorder often means that uninformed treatment may be given to those with the diagnosis and, in particular, admission to hospital may be used inappropriately, with the significant possibility that this may lead to long-term harm. Staff in these settings need access to training and specialist help in the management of borderline personality disorder and this can be provided by specialist services, but with the emphasis that most

patients with this condition will continue to be managed in ordinary, rather than specialised, community services. In other words, the added value of specialist services within trusts may be in the support, training, consultation and advice that they provide for generalist services (CMHTs in the main), rather than the specialist service they will provide for a small handful of people with more severe forms of PD.

The evidence

Many approaches for delivering specialist services have been developed. Such services are generally offered over periods of years rather than months, but the value of interventions of differing length has not been established. Service models include intensive outpatient treatment and day hospital-based care, but we were unable to find an evidence base on which to recommend one model over another (see above), although inpatient services are generally not indicated because of greater cost.

Views of the GDG

It was the GDGs view that specialist services should not be restrictive, and should offer the options of more than one type of intervention to meet the predominantly complex needs of service users, and allow for flexibility and choice to be exercised, especially in the absence of any clear evidence that any one treatment or any one type of service provision is more advantageous than any other. The limited availability of such services for people with personality disorder suggests they should focus on the treatment of those with severe personality disorder, who have greater impaired functioning, and may have high levels of risk. In addition, they are likely to have high levels of service utilisation. Education and training are also important for specialist services, as they are needed to support the work of general mental health services together with case consultations and opportunities for reflective practice. They can contribute to the development of training programmes on diagnosis and management (as well as the implementation of this guideline) for professionals who have contact with people with this borderline personality disorder. Training should also address problems around stigma and discrimination as these apply to people with borderline personality disorder.

The effects and cost-effectiveness of specialist services compared to high quality secondary care have not been examined, nor has the impact that the development of specialist services has on the willingness or ability of secondary care services to work effectively with people with personality disorder. Although specialisation is a common development in many medical services, the limited number of patients that can be treated at any one time by a specialist service, and the high co-occurrence of personality disorder with most mental illnesses, means that most of those with borderline personality disorder will continue to be seen in community mental health teams and primary care only.

Summary

This guideline recommends a care pathway to organise and integrate the provision of care for this guideline. The main place of treatment for these disorders will continue to be the community mental health team, but so that the staff working in these teams can be more confident and competent at dealing with the complex problems of those with borderline personality disorder, a specialist personality disorder service should be set up in each Trust to provide a core of expertise as well as a referral source and training setting to help those patients who present with the most challenging problems.

8.5.18 Clinical practice recommendations

8.5.18.1 Mental health trusts should ensure that professionals working in secondary services, including CAMHS services, especially in community-based services and teams, are trained to diagnose borderline personality disorder, assess risk and need, and provide treatment and management in accordance with this guideline. Training should be provided by specialist personality disorder teams based within mental health trusts.

8.5.18.2 Mental health trusts should consider developing multidisciplinary specialist teams and/or services for people with personality disorders. These teams/clinics should have specific expertise in the diagnosis and management of borderline personality disorder and should:

- provide assessment and treatment services for people with borderline personality disorder who have particularly complex needs and/or high levels of risk
- provide consultation and advice to primary and secondary care services
- offer a diagnostic service when general psychiatric services are in doubt about the diagnosis and/or management of borderline personality disorder
- develop systems of communication and protocols for information sharing among different parts of mental health services for people with borderline personality disorder, including forensic services
- be able to provide and/or advise on an appropriate range of social and psychological interventions, including access to peer support, and advise on the safe use of drug treatment in crises and for comorbidities and insomnia
- work with CAMHS to develop local protocols to govern arrangements for the transition of young people with borderline personality disorder from CAMHS to adult services
- ensure that clear lines of communication between primary and secondary care are established and maintained

- support, lead and participate in the local and national development of potential treatments for people with borderline personality disorder, including multi-centre research
- oversee the implementation of this guideline
- develop training programmes on the diagnosis and management of borderline personality disorder and the implementation of this guideline for general mental health, social care, forensic and primary care providers and other professionals who have contact with people with borderline personality disorder. Training programmes should also address problems around stigma and discrimination as these apply to people with borderline personality disorder.

The size and time commitment of these teams will depend on local circumstances (for example, the size of trust, the population covered and the estimated referral rate for people with borderline personality disorder).

8.5.18.3 Specialist personality disorder services should involve people with personality disorders and carers in planning service developments. With appropriate training and support, service users may also provide services, such as facilitating peer support groups.

8.6 Research recommendation

8.6.1 Developing a care pathway of people with borderline personality disorder

8.6.1.1 A mixed-methods cohort study examining the care pathway of a representative sample of people with borderline personality disorder should be undertaken. Such a study should include consideration of factors that should guide referral from primary to secondary care services, and examine the role of inpatient treatment. The study should examine the impact that patient and service-level actors have on transfer between different components of care and include collection and analysis of both qualitative and quantitative data.

Why is this important

The development of a care pathway for people with borderline personality disorder would help to ensure that available resources are used effectively and that people receive services that are appropriate to their needs. At present, service provision for people with borderline personality disorder varies greatly in different parts of the country, and factors that should be considered when deciding the type and intensity of care that people receive are poorly understood. A cohort study, in which qualitative and quantitative data from service users and providers are collected at the point of transfer to and from different parts of the care pathway would help to inform the

decisions that patients and clinicians have to make about the type of services that people receive.

8.7 Special considerations for people with learning disabilities

8.7.1 Introduction

There has been a lack of conceptual clarity about the diagnosis of personality disorders for people with learning disabilities highlighted by a significant blurring of the boundaries between personality, psychiatric and behaviour disorders for this population.

A review of prevalence studies revealed a wide variation of figures from 1%-91% in community settings and 22%-92% in hospital populations (Alexander & Coorey, 2003). Although the justification for this very extensive variation remains unclear, methodological flaws have been attributed to these large variable figures of prevalence (Torr, 2003).

Characteristics of borderline personality disorder such as impulsivity and affective liability are also common features associated with learning disabilities (Alexander & Coorey, 2003). Flynn et al (2002) found links between the diagnosis of personality disorder in adults with learning disabilities and childhood sexual abuse.

The Diagnostic system DC-LD for people with learning disabilities published by the Royal College of Psychiatrists (2001) recommends that, because of developmental delay in people with learning disabilities, the diagnosis of personality disorder should not be made until at least 21 years of age. In addition DC-LD requires the initial confirmation of personality disorder unspecified, before progressing to more specific types of personality disorder. Personality disorder requires that the characteristics must not be a direct consequence of the person's learning disabilities and also states specifically that there must be associated significant problems in occupational and/or social functioning. People with severe learning disabilities may not be capable of developing maladaptive thoughts and processing information about social environment for the diagnosis of a personality disorder to be made. Conversely it is possible that behaviour patterns attributed to a personality disorder in those with mild or moderate learning disabilities might be viewed as a behaviour disorder in those with severe or profound learning disabilities. Moreland et al (2008) in a conceptual study argue that the validity of a personality disorder diagnosis in people with learning disabilities is fraught with problems and is derived from research on the general population without having been integrated with research conducted within the population of learning disabilities. They suggest that there are grounds to be cautious with the current diagnostic process and to question its clinical validity.

8.7.2 Databases searched and inclustion/exclusion criteria

Studies were sought from amongst the citations downloaded in the search for RCTs undertaken in people with borderline personality disorder which are described elsewhere (for example, in the section on pharmacological interventions). Since no studies were found, an additional search for any primary research in people with learning disabilities and borderline personality disorder was undertaken. This search was broadened to search for studies on any personality disorder. Information about the databases searched and the inclusion/ exclusion criteria used are in Table 50.

Table 116. Databases searched and inclusion/exclusion criteria for clinical evidence.

Electronic databases	Medline, Embase, PsycINFO, CINAHL
Date searched	Database inception to 2 April 2008
Study design	Any primary research design
Patient population	Personality disorder plus learning disability
Interventions	Anye
Outcomes	Any relevant outcomes

8.7.3 Studies considered

No relevant studies were found from the search undertaken. The GDG included a member with specific expertise in this client group who advised on recommendations for consensus opinion.

8.7.4 Clinical evidence summary

There is very little information relating to personality disorder and response to treatment and management (Lindsay, 2007). Case studies have described pharmacological and behaviour interventions in three individuals with borderline personality disorder and learning disabilities (Mavromatis 2000) and Wilson (2001) postulated a four – stage model based upon Linehan's Dialectical Behavioural Therapy. However, the evidence base remains to emerge. In view of the limited evidence base for people with learning disabilities and personality disorder, there is no reason why those with mild and moderate learning disabilities should not be treated in the same way as other people with a diagnosis of borderline personality disorder, with full access to mainstream services. Clinicians should have access to specialist advice when assessing and diagnosing borderline personality disorder in people with mild and moderate learning difficulties. Those with severe learning difficulties should not normally be diagnosed with borderline personality disorder, but, if their behaviour and symptoms suggest borderline personality disorder, they should be referred for specialist assessment and treatment.

8.7.5 Clinical practice recommendations

8.7.5.1 For people with mild or moderate learning disabilities who present with symptoms and behaviour that suggest the diagnosis of

borderline personality disorder, assessment and diagnosis should be undertaken in consultation with a specialist in learning disabilities.

8.7.5.2 When a person with a mild or moderate learning disability has been diagnosed with borderline personality disorder they should be treated within mainstream services and have access to the same services as other people with borderline personality disorder.

8.7.5.3 Care planning for people with a moderate learning disability and borderline personality disorder should take place within the framework of the enhanced care programme approach (CPA). Healthcare professionals should consider consulting with a specialist in learning disabilities in developing care plans and in managing behaviour that challenges.

8.7.5.4 People with a severe learning disability should not normally be diagnosed with borderline personality disorder, but where they have behaviour and symptoms suggestive of borderline personality disorder they should be referred for assessment and treatment by a specialist in learning disabilities.

8.8 Special considerations for people from black and ethnic minority groups

Studies examining the prevalence of personality disorder have generally included insufficient numbers of people from ethnic minority communities to explore whether this influences the likelihood of having a personality disorder (Coid et al. 2006). As a result we do not know if the prevalence of borderline personality disorder is any higher or lower among people from BME communities in the UK.

Cross-sectional surveys of people in contact with general and forensic mental health services suggest that the proportion of people from BME communities who are given a diagnosis of personality disorder may be lower than that among the British white population (Tyrer et al. 1994; Singleton et al. 1998). However it is not known whether this is the result of lower prevalence or whether healthcare staff are less likely to make this diagnosis among people from ethnic minorities. A case-vignette study among 220 forensic psychiatrists in the UK found some evidence to support the view that doctors are less likely to make a diagnosis of antisocial personality disorder among people from Afro-Caribbean backgrounds, but the same study did not find evidence of cultural bias in the diagnosis of borderline personality disorder (Mikton & Grounds, 2007).

Prospective data collected from a sample of 547 people with personality disorder in North America demonstrated Hispanic and African American patients were less likely to receive individual and group psychotherapy or to

receive psychotropic medication (Bender et al. 2007). In Britain, people who are referred to residential personality disorder services from BME communities may be less likely to be offered a service (Geraghty & Warren, 2003). Data collected from people referred to 11 community-based services for adults with personality disorder in England has shown that people from BME communities are less likely to be taken on be specialist personality disorder services and may be more likely to drop out from them prior to completion of an episode of care (Crawford et al. 2007).

In summary, we do not know if the prevalence of borderline personality disorder varies among different ethnic groups in the UK. However there is evidence to suggest that people with personality disorder from ethnic minority communities are less likely to receive treatment for their disorder.

8.8.1 Clinical practice recommendations

8.8.1.1 Healthcare professionals should ensure that people from black and minority ethnic groups with borderline personality disorder have equal access to services based upon clinical need.

8.8.1.2 If language is a barrier to accessing or engaging with services for people with borderline personality disorder, healthcare professionals should provide the person with:

- information in their preferred language and/or in an accessible format
- psychological or other interventions in their preferred language
- independent interpreters.

9 Young people with borderline personality disorder

9.1 Introduction

This guideline uses the term 'young people' to refer to under 18 year olds, as people of this age prefer this descriptor to the term 'adolescent'.

Borderline personality disorder affects between 0.9% - 3% of the community population of under 18 year olds (Chanen, Jovev & Jackson, 2007). Employing lower symptom thresholds results in an increase to between 10.8% - 14%. Chanen et al (2007) cite data suggesting a prevalence rate of 11% in adolescent outpatients and 49% in adolescent inpatients. Many clinicians are reluctant to diagnose borderline personality disorder in young people. This reluctance relates to uncertainties about whether personality disorder can be diagnosed in this age group, the appropriateness of the diagnosis at a time of major developmental change and possible negative consequences of the diagnostic label. Adolescence is a period of major developmental transitions physically, psychologically and socially. During this period young people experience emotional distress, frequent interpersonal disruptions and challenges establishing a sense of identity. Consequently, young people with borderline personality disorder may experience a minimisation or dismissal of their difficulties from staff, their families, or from their wider social circle, who attribute their problems to normative 'storm and stress'. This may preclude access to appropriate help for their difficulties.

Given the concerns about diagnosing young people with borderline personality disorder, the current approach to diagnosis and conceptualisation of the problems presented by young people with borderline personality disorder is highly variable. Consequently, treatment strategies are highly variable also. Whilst clinicians often assess the behaviours that would form a diagnosis of borderline personality disorder, they often do not conceptualise the problems as borderline personality disorder or make a formal diagnosis. Also, as young people with borderline personality disorder often have multiple comorbidities clinicians tend to focus on the assessment and treatment of axis I disorders. Because of the complexity and comorbidity of the problems, some young people will receive a multitude of interventions with varying degrees of coordination. In these circumstances, the absence of coordination and a failure to involve other systems around the young person e.g. family, school, may limit the effectiveness of interventions. Other young people will receive less frequent interventions. In some cases, either the service or the individual practitioner experiences frequent demands and requests for help from the young person, his or her family or other services

involved. The intensity of service demanded may exceed the capacity of either the individual practitioner or the service to provide.

Deciding on the main goals of treatment often presents a challenge given the complexity of the difficulties and the limited nature of the evidence base for working with young people with borderline personality disorder. Frequently interventions focus exclusively and sometimes unhelpfully on the assessment and management of risk to the exclusion of treatment of the disorder or other comorbid disorders. Current practice includes a range of different psychological and pharmacological treatments. Psychological treatments may include CBT, DBT, family therapy, psychodynamic psychotherapy, counselling, treatments derived from attachment theory and non-specific talking therapies. Pharmacological treatments may include SSRIs, mood stabilisers or low-dose neuroleptics. These may be prescribed either with the intention of treating a comorbid condition, for example an SSRI for depression, or of addressing specific symptoms, for example a neuroleptic to reduce impulsivity. Some services will utilise CPA for young people with borderline personality disorder others will not. Irrespective of the treatment offered, practitioners may have difficulty remaining appropriately focused on the goals of treatment in the presence of multiple comorbidities, social and family problems. The motivational fluctuations that often accompany the disorder and the emotional lability of the young person with borderline personality disorder can lead practitioners unintentionally away from the pre-determined focus of the intervention.

There are potential risks associated with intervention. The most common risk, which can occur both in outpatient and inpatient treatment, is the reinforcement of problematic behaviours, leading to deterioration in functioning. Young people may then require more intensive treatment and, in a small proportion of cases, this can lead to expensive out-of-area placements and/or placements with higher levels of security. Young people with borderline personality disorder and a history of childhood trauma may also deteriorate if trauma therapy that involves repeated and / or in-depth exposure to the trauma is embarked upon before their more impulsive behaviours are stabilised.

Young people with borderline personality disorder may also be known to social services either as a result of child protection concerns or because the young person is designated a 'child in need'. Young people in these circumstances, as well as receiving routine services, may also live in foster placements, therapeutic foster placements or in residential settings. They may also come to the attention of the Youth Justice Service or be in prison as a result of impulsive behaviours that are antisocial or criminal in nature. Some young people with borderline personality disorder may have a statement of special educational need and / or may find accessing standard educational settings problematic.

This chapter considers first the diagnosis of borderline personality disorder and its stability in young people. The assessment of young people with borderline personality disorder is then considered, including which assessment tools may assist clinicians to identify borderline personality disorder in young people. As with adult patients the assessment and management of suicide risk frequently forms a major focus of the work the chapter reviews the evidence for suicide risk in young people with borderline personality disorder. Treatment options are then reviewed. The chapter concludes with a care pathway and associated recommendations.

9.2 Diagnosis

DSM-IV allows for all personality disorders, with the exception of Anti-Social Personality Disorder, to be diagnosed in young people with certain caveats (APA, 1994). To diagnose a personality disorder in a young person the maladaptive personality traits must be assessed as pervasive and persistent and not limited to periods of an Axis I disorder or to a specific developmental stage (*Ibid*. pg 687). The criteria for diagnosing borderline personality disorder are the same in young people as for adults. As a degree of emotional lability, interpersonal instability and identity confusion are more normative during the adolescent period, however, assessing clinicians must establish that the severity and intensity of these behaviours exceeds what is typical for young people before concluding that the criterion is present. Sub-cultural differences in the prevalence of the behaviours must also be considered. ICD-10 also allows for a diagnosis of emotionally unstable personality disorder, borderline type, to be made in young people using the same criteria as for adults (WHO, 1992). However, in general for personality disorders it states that it is "unlikely that the diagnosis of personality disorder will be appropriate before the age of 16 or 17 years".

Both the research literature and clinicians use a variety of terms to refer to young people who present with behaviours consistent with a diagnosis of borderline personality disorder. Often, when referring to young people a qualifying term is added to the borderline personality disorder diagnosis. The most commonly used qualifiers include 'possible', 'putative', 'tentative', 'emerging' and 'emergent'. The guideline does not use any of these qualifying terms but rather refers to those under 18 year old who meet criteria for the disorder as 'young people with borderline personality disorder'. The view of the guideline group was that the use of qualifying terms most likely stems from concerns about whether or not it is possible to make the diagnosis in young people and / or concerns about the negative effects of labelling. Concerns about labelling are legitimate and apply equally regardless of age. To mitigate these concerns the guideline group recommend that the diagnosis only be employed following a thorough assessment and that it should be used to inform an appropriate treatment plan and not as justification for refusing or limiting access to services.

The next section reviews evidence on the stability of the diagnosis in young people.

9.3 Stability of the diagnosis of borderline personality disorder in young people

One concern over the appropriateness of the diagnosis of borderline personality disorder in young people is its stability, particularly at a time of major developmental change. The issue of stability of the diagnosis is important as it has an impact on the identification, diagnosis and treatment of borderline personality disorder in young people.

9.3.1 Reviewing the evidence base

The most appropriate research design to establish whether the borderline personality disorder diagnosis is stable in young people is the prospective cohort study. The evidence base reviewed, therefore, comprised all available prospective studies undertaken in young people in whom a diagnosis of borderline personality disorder has been made either at baseline or at follow-up. Review studies focussing on borderline personality disorder in young people were also sought to ascertain the state of the available literature and to check that the relevant references had been identified by the search strings used.

The summary study characteristics and descriptions of the studies are given in the table below but more information is available in appendix 16. Reviewed studies are referred to by first author surname in capitals plus year of publication.

9.3.2 Evidence search and overview of studies found

The electronic databases searched are given in Table 1. Details of the search strings used are in appendix 7.

Table 117: Databases searched and inclusion/exclusion criteria for studies of stability of diagnosis of borderline personality disorder in young people

Electronic databases	MEDLINE, EMBASE, PsycINFO
Date searched	Database inception to September 2007
Update searches	May 2008
Study design	Prospective and quasi-prospective cohort studies
Population	Young people under the age of 18 who were assessed both before the age of 18 and in adulthood, with at least one of the assessments being for borderline personality disorder according to DSM, ICD or similar criteria

Studies of young people diagnosed with borderline personality either at baseline or at follow-up were included. Forty-four prospective cohort papers were found from searches of electronic databases, of which thirty-three were excluded. The most common reasons for exclusion was that there were no

useable data, no longitudinal data were reported or there were no data reported for borderline personality disorder specifically (further information about both included and excluded studies can be found in Appendix 16).

Eighteen of the forty-four prospective studies found from the searches reported data from The Children in the Community Study. This study followed-up a randomly selected sample of 976 children recruited in 1975. Despite the fact that this is a prospective study with a large sample size, a considerable limitation of the dataset is that the study began before the diagnosis of borderline personality disorder in DSM-III. Therefore, the study authors retrospectively applied a diagnostic instrument to identify borderline personality disorder using an algorithm for scoring items from self-report questionnaires and structured interviews conducted by trained lay-interviewers. This study has therefore been excluded from the analysis below.

In addition, a number of studies were found which reported data for Cluster B personality disorders but did not report any data specifically for borderline personality disorder. These studies were also excluded from the analysis as it cannot be assumed that the stability of different Cluster B personality disorders is similar. This is illustrated by Chanen et al (2004) who report that the stability of different Cluster B personality disorders ranges from 0% for histrionic and narcissistic to 100% for antisocial in a sample of young people over a 2 year period.

Table 118 Summary study characteristics of included studies of the stability of borderline personality disorder in young people

	Prospective longitudinal short follow-up studies of borderline personality disorder	Quasi-prospective studies of developmental antecedents of borderline personality disorder	Children with disruptive and/or emotional disorders followed-up as young people
No. trials (Total participants)	3 prospective longitudinal studies (158)	3 quasi-prospective studies (210)	5 prospective studies (784)
Study IDs	(1) CHANEN2004 (2) GARNET1994 (3) MEIJER1998	(1) HELGELAND2004 (2) LOFGREN1991 (3) ZELKOWITZ2007	(1) FISCHER2002 (2) HELGELAND2005 (3) HELLGREN1994A (4) RAMKLINT2003 (5) REY1995
N/% female	(1) 101/63 (2) 21/52 (3) 36/50	(1) 132/53 (2) 19/26 (3) 59/19	(1) 239/10 (2) 130/53 (3) 112/37 (4) 158/60 (5) 145/44
Mean age at first assessment (or range if not given)	(1) 16 (2) 17 (3) 15	(1) 15 (2) 6-10 (3) 7-12	(1) 4-12 (2) 15 (3) 7 (4) 14 (5) 14
Setting	(1) Outpatients; Australia (2) Inpatients; US (3) Inpatients; Holland	(1) Inpatients; Norway (2) Inpatients; US (3) Inpatients; Canada	(1) Not reported; US (2) Inpatients; Norway (3) Community; Sweden (4) Inpatients; Sweden (5) Adolescent Unit; Australia

Length of follow-up	(1) 2 years (2) 2 years (3) 3 years	(1) 28 years (2) 10-20 years (3) 5-7 years	(1) 14 years (2) 28 years (3) 9 years (4) 16 years (5) 14 years

9.3.3 Prospective longitudinal short follow up studies of borderline personality disorder

Study descriptions

CHANEN2004 – this is a 2-year prospective study of 101 young people drawn from an adolescent outpatient service in Australia. Participants were assessed using the SCID II at baseline and 97 were re-interviewed 2 years later by interviewers who were blind to the baseline assessment. At baseline 11 participants met the criteria for borderline personality disorder. At the 2 year follow up 6 participants who had met the criteria at baseline no longer met the criteria, 8 new cases of borderline personality disorder were diagnosed and 4 people who met the criteria at baseline retained the diagnosis 2 years later. The overall proportion of enduring cases of borderline personality disorder over 2 years was 40%.

GARNET1994 – this is a US based study of 21 inpatients with borderline personality disorder. Participants were contacted 2 years following discharge. Symptoms were assessed using the Personality Disorder Examination at baseline and again at follow-up by raters who were blind to the baseline diagnosis. At the 2 year follow up 7 participants retained the diagnosis of borderline personality disorder and 14 participants no longer met the criteria, the overall proportion of enduring cases in this sample was 33%.

The authors also examined the ability of baseline criteria for borderline personality disorder to predict the diagnosis of borderline personality disorder at the 2 year follow-up. For the subgroup of participants who were diagnosed with borderline personality disorder both at baseline and at follow up, the most stable symptoms were emptiness or boredom (100% agreement between baseline and follow-up), inappropriate, intense anger (86% agreement), affective instability (71% agreement), identity disturbance (71% agreement), and suicidal behaviours (67% agreement). The least stable symptoms were impulsiveness (57% agreement) and unstable intense relationships (50% agreement).

MEIJER1998 – this study followed-up 36 inpatients, 14 with and 22 without borderline personality disorder. The Diagnostic Interview for Borderline Patients was administered to all participants at baseline and at the 3 year follow-up by raters who were blind to baseline diagnosis. At the 3 year follow-up, 2 people who met the criteria for borderline personality disorder at baseline retained their diagnosis. 12 people no longer met the criteria but it was reported that some borderline symptoms were still present. There were no new cases of borderline personality disorder in the sample. Overall the

proportion of enduring cases was 21%. The authors report the most persistent symptoms were conflict about giving and receiving care, dependency and masochism and areas or periods of special achievement.

Clinical summary

These prospective longitudinal studies of the stability of borderline personality disorder in young people over 2-3 years suggest that the stability of this disorder is between 21%-40%. However, it should be noted that all these studies have very small sample sizes, with only 46 people with borderline personality disorder at baseline across all 3 studies.

9.3.4 Quasi-prospective studies of developmental antecedents of borderline personality disorder

Study descriptions

HELGELAND2004 – this is a quasi-prospective study investigating the developmental antecedents of borderline personality disorder in 25 participants with borderline personality disorder compared with 107 controls. Baseline diagnosis was determined on the basis of medical records and follow-up interview after 28 years. At follow-up SCID I and the Structured Interview for DSM IV Personality (SIDP-IV) were administered by raters who were blind to the baseline diagnosis. 25 participants met the criteria for borderline personality disorder at some point in their life, of these 16 met at least 5 borderline personality disorder criteria at follow up, while 9 with a history of life time borderline personality disorder no longer met at least 5 criteria. Overall 64% of people with a history of borderline personality disorder met the diagnostic criteria at follow-up.

LOFGREN1991 – this study followed-up 19 children who had been diagnosed as borderline approximately 10-20 years earlier. These children had been identified as borderline at baseline according to the criteria of Bemporad et al (1982, 1987). At follow-up participants were assessed using the SCID and unstructured clinical interviews. 3 of the 19 participants met the diagnosis criteria for borderline personality disorder at follow-up. A further 13 met the criteria for a personality disorder other than borderline. Overall the proportion of enduring cases was 16% in this sample.

ZELKOWITZ2007 – this study followed-up 59 young people who had been treated in a Child Psychiatric Day Hospital 5-7 years earlier. The child version of the Retrospective Diagnostic Interview for Borderlines was used to review participants' medical charts, on this basis 28 participants were diagnosed with borderline pathology of childhood while 31 participants who did not have a history of borderline pathology of childhood served as the comparison group. Borderline personality disorder was assessed at follow-up with the Diagnostic Interview for Borderlines. At follow-up, 5 participants met the criteria for a current diagnosis of borderline personality disorder and 23 participants who

had a history of borderline pathology of childhood did not meet the diagnostic criteria at follow-up. Overall 18% of people who were diagnosed with borderline pathology of childhood met the diagnostic criteria for borderline personality disorder at follow up.

Clinical summary

These quasi-prospective studies of the antecedents of borderline personality disorder in children and young people suggest that the stability of the diagnosis over a longer period of time is less clear, the proportion of participants who retained the diagnosis for borderline personality disorder at follow up varied form between 16%-64%.

9.3.5 Children with disruptive and/or emotional disorders followed-up as young people

Study descriptions

FISCHER2002 – this study followed-up 147 participants diagnosed as hyperactive in childhood and 73 matched community controls. Participants were originally assessed at 4-12 years of age, this study followed them up an average of 14 years later. At follow up SCID-NP (non patient edition) including SCID-II was administered. At follow up 2 out of 73 (3%) of participants in the control group were diagnosed with borderline personality disorder whereas 20 out of 147 (14%) of those in the hyperactive group were diagnosed with borderline personality disorder. Borderline personality disorder was one of the most common diagnoses in the hyperactive group.

Data are also presented for comorbidities in the hyperactive group: having major depressive disorder, passive-aggressive personality disorder or histrionic personality disorder significantly increased the likelihood of having borderline personality disorder. Likewise, having borderline personality disorder was a significant risk for major depressive disorder, passive-aggressive personality disorder, histrionic personality disorder and antisocial personality disorder. In addition, severity of conduct disorder at adolescent follow-up significantly predicted risk for borderline personality disorder.

HELGELAND2005 – this quasi-prospective study assessed personality disorders in adulthood in a group of participants who were admitted to an adolescent unit 28 years earlier with emotional and/or disruptive behaviour disorders. 130 participants were re-diagnosed based on hospital records and were interviewed with the Structured Interview for DSM IV Personality at 28 years follow-up by a rater who was blind to the baseline diagnosis. At follow-up 2 out of 45 (4%) participants with emotional disorder in adolescence were diagnosed with borderline personality disorder whereas 22 out of 85 (26%) participants with disruptive disorder in adolescence were diagnosed with borderline personality disorder. Young people with disruptive behaviour disorders were significantly more likely to have borderline personality disorder in adulthood than those with emotional disorders.

HELLGREN1994A – this study followed-up 56 children at age 16 years who had deficits in attention, motor control and perception age 7 years and compared them with 45 control children. The Personality Disorder Examination was administered at follow-up. Psychiatric disorders and personality disorders were more common in participants who had deficits in attention, motor control and perception as children compared with the controls. 3 out of 13 (23%) participants who had severe deficits in attention, motor control and perception as children and 5 out of 26 (19%) participants who had mild deficits in attention, motor control and perception as children were diagnosed with borderline personality disorder at follow-up. 2 out of 11 (18%) participants who had motor control/perception dysfunction only and 3 out of 6 (50%) participants who had attention deficits only as children had borderline personality disorder at follow-up compared with 4 out of 45 (9%) participants in the control group.

RAMKLINT2003 – this study assessed personality disorders in a group of 158 former psychiatric inpatients. Childhood and adolescent axis I disorders were obtained from medical records and coded into DSM IV diagnoses. Participants were followed up an average of 16 years later and personality disorders in adulthood were assessed using DSM IV and ICD10 Personality Questionnaire (DIP Q). At follow-up, 50 of the 158 (32%) former psychiatric patients were diagnosed with borderline personality disorder. The authors report that childhood and adolescent major depressive disorder and substance related disorders were significant risk factors for borderline personality disorder in adulthood.

REY1995 – this study followed-up 145 young adults who had been diagnosed with a variety of emotional and disruptive disorders during adolescence, an average of 14 years earlier. The Personality Disorder Examination was administered at follow-up and a total of 11 of the 145 (8%) participants were diagnosed with borderline personality disorder in adulthood. Of these, 9 out of 80 (11%) participants who had a disruptive disorder in adolescents were diagnosed with borderline personality disorder at follow-up, 3 participants had an adolescent diagnosis of ADHD, 1 oppositional disorder, 2 conduct disorder and 3 conduct disorder and ADHD. 2 out of 65 (3%) participants who had an emotional disorder in adolescents were diagnosed with borderline personality disorder at follow up, both these participants had an adolescent diagnosis of dysthymic disorder.

Clinical summary

These studies of children with disruptive and/or emotional disorders followed-up into adolescence or adulthood report a higher incidence of borderline personality disorder at follow-up for participants who were diagnosed with a disruptive disorder in childhood. The proportion of participants diagnosed with a disruptive disorder in childhood who were

diagnosed with borderline personality disorder at follow-up is between 11%-26%.

9.3.6 Overall clinical summary for stability of diagnosis of borderline personality disorder in young people

Limited evidence makes it difficult to draw any firm conclusions regarding the stability of the diagnosis of borderline personality disorder in young people. There is some evidence that the diagnosis is stable in between 21%-40% of young people over a 2-3 year period, however the picture becomes less clear over longer follow-up periods, partly due to the fact that the diagnosis of borderline personality disorder was only introduced in 1980 with DSM-III.

This limited evidence on the stability of the borderline personality disorder diagnosis in young people, has led some commentators to argue for its instability (Becker et al., 2002) and others to argue that the diagnosis is stable over time (Bradley et al., 2005). It may be that there are different sub-groups of young people who receive a diagnosis of borderline personality disorder, some of whom will recover more rapidly and others who will experience more enduring difficulties. Recent research with adults would indicate that the prognosis of the disorder is more positive than was previously believed (Zanarini et al., 2003) and it may be that even those young people with a stable diagnosis over 2 years (Garnet et al., 1994) may go on to recover over a longer time period.

9.4 Suicide risk in young people with borderline personality disorder

9.4.1 Risk factors for suicide in adolescents with borderline personality disorder or symptoms of borderline personality disorder

A separate review of factors associated with suicide in adolescents with symptoms of borderline personality disorder or borderline personality disorder was undertaken. Personality disorder in this age group may not be stable so different factors are likely to be important compared with risk factors in adults.

Nine studies of suicide in adolescents with borderline personality disorder were found. Two of these were excluded – see below. A summary of the characteristics of the included studies are in Table 40.

Table 119 Summary study characteristics of studies of risk factors for suicide in adolescents with borderline personality disorder

	General psychiatric populations or non-specific personality disorder	Studies comparing those with MDD with those with borderline personality disorder
No. trials (Total participants)	1 observational study (66)	2 observational studies (125)
Study IDs	(1) BRENT1993	(1) HORESH1993A

	(2) RUNESON1991 (3) STONE1992 (4) YOUNG1995	(2) HORESH1993B
N/% female	(1) 66/39 (2) 58/28 (3) 9/56 (4) 55/53	(1) 60/55 (2) 65/77
Mean age (or range if not given)	(1) 13-19 (2) 23 (15-29) (3) 18 (15-20) (4) 16 (14-18)	(1) 17 (2) 15
Axis I/II disorders	(1) Any affective disorder: suicide attempter group 86.5% control group 55.2%; substance abuse: 29.7%, 37.9%; attention deficit disorder 5.4%, 34.5%; any PD 81.1%, 58.6%. BPD or trait 32.4%, 10.3% (2) Major depression 22%; schizophrenia 14%; adjustment disorder 14%; 33% BPD; 16% ASPD (3) 5 had BPD; 4 psychosis (1 bipolar; 4 schizoaffective); comorbidities not given (4) Eating disorder: BPD 29%; non-BPD 6%; major affective disorder 33%, 41%; PTSD 19%, 24%; OCD 0%, 12%	(1) 33% MDD; 33% BPD; 33% no diagnosis (control group) (2) 51% BPD; 49% MDD
Setting	(1) Inpatients (2) 79% had previous psychiatric care in 2 years before suicide (3) Inpatients (4) Inpatients	(1) Outpatients (2) Inpatients
Suicidality	(1) 56% recent suicide attempt (2) all completed suicide (3) all completed suicide (4) 69% suicidal	(1) 100% recent suicide attempt (2) 26% recent suicide attempt

* Given by disorder because of significant difference

Studies which did not look at specific risk factors were excluded:

CRUMLEY1981 – this study describes the features of borderline personality disorder in 22 adolescents who had made a suicide attempt. However, it did not focus on features specifically related to suicide attempts. The patients were selected from the authors clinical case load and the data were collected from retrospective chart reviews.

FRIEDMAN1987 – this paper describes two case studies.

9.4.2 Studies of general psychiatric populations

Study descriptions

BRENT1993 – this study compared 37 psychiatric inpatients aged between 13 and 19 years who had made a suicide attempt in the year prior to admission with 29 inpatients who had never made a suicide attempt. The sample was not consecutive but was frequency matched (the term is not explained by the authors) with a previously gathered sample of adolescents who had completed suicide on age, gender, and primary psychiatric diagnosis. Despite this, the never-attempted group contained more boys than the group of adolescents who had attempted suicide (90% and 38% respectively), which also comprised more adolescents with affective illness.

The study compared the two groups on various factors. As well as finding that those who had attempted suicide were more likely to be girls and to have an affective illness (notably major depressive disorder, bipolar disorder mixed state, and bipolar spectrum disorder), the study found that this group was less likely to have diagnoses of conduct disorder or attention deficit disorder. They were more likely to have a personality disorder (81.1% vs 58.6%), particularly Cluster C disorders (70.3% vs 48.3%). There were more patients with borderline personality disorder or borderline traits (32.4%, 10.3%), and this group were more likely to have made a previous attempt.

RUNESON1991 – this study reports on 58 consecutive suicides amongst adolescents and young adults (aged 15 to 29 years) completed between 1984 and 1987 in Sweden. Data were collected in semi-structured interviews with relatives. In some cases, relevant healthcare professionals were also interviewed. In 69% of cases psychiatric records were consulted. Diagnoses were made by consensus based on DSM-III-R criteria. Of the total 58 cases, 21 were given a diagnosis of borderline personality disorder. There was a relatively high rate of depressive disorders (42% in the borderline personality disorder group, 56% in the non-borderline personality disorder group).

Those given a borderline personality disorder diagnosis were more likely to have had absent or divorced parents, and to have been exposed to alcohol and drug abuse by their first-degree relatives. They were also more likely to have had more than 2 jobs, to have had financial problems, to have been homeless, and to have received a court sentence. Unfortunately, these data are not broken down by age, so may be dominated by those over 18 years.

STONE1992 – this is a report of a study following a cohort of patients admitted to the New York State Psychiatric Institute between 1963 and 1976. The reported on the 9 patients who completed suicide as adolescents (defined as 20 years or less). Five of these had a diagnosis of borderline personality disorder (DSM-III criteria) and four presented with a psychosis.

The study found that those who had completed suicide were more likely to experience traumatic life events than others, particularly those with

borderline personality disorder. This group were also more likely to have experienced parental brutality than those with psychosis.

YOUNG1995 – this study looked at the families of 55 14 to 18 year olds who had been admitted to an adolescent and family treatment unit in the US. Patients were admitted following self-harm, dangerous drug use, suicidal behaviour, treatment-resistant eating disorders, depression, and OCD. Based on DSM-III-R diagnoses, 21 were diagnosed with borderline personality disorder. Of these, 29% had a comorbid eating disorder, 33% major affective disorder, 19% PTSD and none had OCD. There were 16 girls and 5 boys. Fifty-seven per cent had an intact family, 24% were adopted, 19% had parents who were divorced or separated, and 24% had parents who had remarried. Of those with borderline personality disorder 66% were suicidal, all had showed self-destructive behaviour and 67% were aggressive. Data were collected in a 2-hour standardised family assessment between 2 and 5 weeks after admission.

The study compared the adolescents' views with those of their parents, making comparisons between those with borderline personality disorder and those without. It reported that adolescents with borderline personality disorder who were more suicidal tended to see themselves as more alienated from their parents and more socially isolated and with poorer overall functioning than others. Their parents however did not see their children in the same way which the study authors believe illustrates the adolescents' alienation. Within the group of those with borderline personality disorder, those who were more self-destructive (such as self-harming or running away) tended to see themselves as more socially isolated than other adolescents.

Clinical summary

It is not surprising that many of the studies reviewed found that young people with borderline personality disorder or traits of borderline personality disorder are more likely to attempt suicide than others since suicidal behaviour is a diagnostic criterion of the disorder. However, the studies help to emphasise the fact that young people with borderline personality disorder are at risk. In addition, those who are suicidal are more likely to feel alienated from their families, and more socially isolated than others. Those completing suicide are also more likely to have experienced traumatic events and parental brutality, absence or divorce.

9.4.3 Studies comparing people with depression with those with borderline personality disorder

Study descriptions

HORESH2003A – this study looked at suicidality in 40 adolescents referred to an outpatient clinic following a suicide attempt. It compared those with major depressive disorder (n=20) with those with borderline personality disorder (n=20). These groups were further compared with a control group (n=20)

who had no psychiatric diagnosis or suicide attempt who were matched on age and sex. Those with comorbid borderline personality disorder and major depressive disorder were excluded. Participants were interviewed within a month of the index admission.

The study found that adolescents with major depressive disorder had statistically significantly higher BDI depression scores than those with borderline personality disorder, who in turn had statistically significantly higher scores than those in the control group. On a suicide risk scale, both the major depression and borderline personality disorder groups had significantly higher scores than the control group. This pattern was the same for the number of serious life events. Those with borderline personality disorder had experienced significantly more sexual abuse events than either of the other groups (5% of those with major depressive disorder, 30% of those with borderline personality disorder, and 5% of the control group).

HORESH2003B – this study looked at 65 adolescents with either major depressive disorder (n=32) or borderline personality disorder (n=33). Some of the adolescents in each group had made a recent (i.e., within 30 days of assessment) suicide attempt (n=17), and some had never attempted suicide (n=16). Comorbid disorders amongst those with borderline personality disorder included major depressive disorder (n=10), dysthymia (n=11), and conduct disorder (n=3).

The study found that amongst those with a diagnosis of borderline personality disorder, those with a recent suicide attempt were more impulsive, whilst those with major depressive disorder with a recent suicide attempt had higher intent scores than those with a recent suicide attempt and borderline personality disorder.

Clinical summary

These studies confirm that those with borderline personality disorder who make a suicide attempt are likely to have increased depression symptoms compared with those with no psychiatric diagnosis, but that these are not as high as for those with a diagnosis of major depressive disorder. They were also more likely to have suffered sexual abuse. A diagnosis of borderline personality disorder does not necessarily imply someone will make a suicide attempt. Those that do are likely to be more impulsive than those who do not.

9.4.4 Overall suicide risk clinical summary

There are relatively few studies specifically of adolescents with borderline personality disorder or traits. As with adults, having symptoms of borderline personality disorder is itself is a risk factor for suicide attempts and there is also evidence that adolescents that attempt suicide have some depression symptoms and are more impulsive. Young people with borderline personality disorder completing suicide are more likely to have experienced traumatic events and parental brutality, absence or divorce. These findings indicate

that, as with adults, assessment and management of suicide risk is likely to form part of the treatment plan.

9.5 Assessment

9.5.1 Reviewing the evidence base

In order to make recommendations about identification of borderline personality disorder in young people the GDG asked the clinical question:

What can help clinicians identify features of borderline personality disorder in adolescents?

Are there tools/assessments which clinicians can use to assist in the identification / assessment process?

And of these:

Are there tools/assessments which can be used in Tier 1?

The questions regarding assessment were addressed by a group of special advisors (see Appendix 3 for details of the special advisors).

9.5.2 Identifying the young person with borderline personality disorder

There are a number of clinical features that may indicate to the clinician to assess for borderline personality disorder. These are:

- Frequent suicidal / self-harming behaviours
- Marked emotional instability
- Deteriorating course of symptoms
- Multiple comorbidities
- Refractory to treatment
- High level of functional impairment (Chanen, Jovev & Harvey, 2007).

Questionnaire measures may also provide a useful screen to indicate a more structured assessment is required. Chanen, Jovev, Djaja et al (in press) evaluated 4 screening measures for borderline personality disorder in an outpatient sample of young people: the McLean Screening Instrument for borderline personality disorder (MSI-borderline personality disorder); the Borderline Personality Questionnaire (BPQ); items from the International Personality Disorder Examination Screening Questionnaire; and the borderline personality disorder items from the SCID-II. All four measures performed well. The BPQ had the highest diagnostic accuracy and highest

test-re-test reliability. It is also the longest of the four measures although administering and scoring can be completed within 15 minutes

The criteria for diagnosing borderline personality disorder are the same in young people as for adults (with the caveats as indicated above in Section 1.2). Diagnosing borderline personality disorder in young people requires a structured clinical interview. Clinicians can use the questions from the Structured Clinical Interview for DSM IV Axis II disorders (SCID-II) for this purpose. Westen & Shedler (2007) describe the Sheldler & Westen Assessment Procedure - Adolescents (SWAP-A) a Q-sort technique based on a structured diagnostic interview that was specifically developed for the assessment of personality disorder in adolescents. This assessment may be suitable in some specialist services but is likely to be too time consuming for most settings. None of these measures are suitable for use by Tier 1 staff as use of these measures needs to form part of a comprehensive assessment.

Both the diagnostic criteria and retrospective studies indicate that borderline personality disorder develops in late adolescence / young adulthood yet rarely is the diagnosis made at first presentation. This failure to diagnose early in the course of the disorder may relate to clinician concern about the appropriateness of diagnosing the disorder during this developmental stage and / or to a failure to conceptualise the problems as belonging to a personality disorder. Given that a diagnosis in adolescence of borderline personality disorder predicts both Axis I and Axis II problems in adulthood (Cohen et al., 2007; Daley et al, 1999; Johnson et al., 1999), failure to diagnose early may prevent appropriate early intervention. This may become increasingly important as more efficacious treatments for the disorder are developed.

9.6 Treatment

9.6.1 Review of the evidence base

In relation to treatment the GDG asked the following clinical question:

What interventions and care processes are effective in improving outcomes or altering the developmental course for people under the age of 18 with borderline personality disorder or borderline symptoms?

In order to address this question regarding treatment, the reviews of the literature undertaken to answer this clinical question in adults were scanned to ascertain whether any had been undertaken in young people. This yielded one study of cognitive analytic therapy (CHANENunpub) (see the chapter on psychological interventions). No study of a pharmacological intervention was found in under 18 year olds. This is not surprising since, not only does no drug have marketing authorisation for the treatment of people with

borderline personality disorder, but also few psychotropic drugs have marketing authorisation for under 18 year olds.

In the absence of high quality evidence, the GDG and its special advisors (see Appendix 3) agreed that both the general principles and the recommendations for treatment for adults described elsewhere in this guideline can be applied to young people.

9.6.2 Issues of consent to treatment for young people

It is desirable to gain informed consent from both the young person and their parents, not least because the success of any treatment approach significantly depends upon the development of a positive therapeutic alliance between the young person, the family and the professionals. In most outpatient settings consent is usually straight forward as the young person will generally have a choice to, at least, accept or decline treatment. None the less, information about the potential risks and benefits of the intervention being offered should be given.

There may be times when professionals consider inpatient admission to be necessary, but either the young person or the family do not consent. Under the Mental Health Act 2007, there have been some changes to the law regarding young people under the age of 18 years.

If a young person aged 16 or 17 years old has capacity to give or refuse treatment, it is no longer possible for the person with parental authority to over-rule the young person's wishes. However, for those under the age of 16 years a 'Gillick-competent' young person can still be admitted against his or her wishes with the consent of someone with parental authority. Whilst the use of parental consent is legal, it is generally good practice to consider the use of other appropriate legislation, usually the Mental Health Act, for prolonged periods of admission as it includes safeguards such as the involvement of other professionals, a time limit and a straightforward procedure for appeals and regular reviews.

On the other hand, a young person below the age of 16 years has the right to consent to treatment if deemed 'Gillick competent'. If the person with parental authority objects, these objections must be considered but will not necessarily prevail.

Alternative legislation includes using a care order (Section 31) under the Children Act 1989 or a specific issue order (Section 8). Both of these options normally involve social services and can be time consuming. Another, more rapid alternative to the Children Act, is to apply for a Wardship Order, which in an emergency can be organised by telephone.

9.6.3 Involvement of family & carers

The role of the family in the treatment of young people with borderline personality disorder is a critical one to consider. Issues within the family, both past and present, are likely to be highly relevant to the development or maintenance (or both) of the young person's problems. Where modification of problematic family interactions is possible, it is likely to have a significant positive effect on outcome. It may also be the first opportunity some parents have had to consider and address some of their own particular problems. Severity of parental mental health problems also can impact adversely on treatment outcome. Where there are extreme family problems, however, working collaboratively with the family of the young person may prove impossible. Likewise, it may be difficult to form a meaningful therapeutic alliance with parents whose parenting style provokes child protection concerns.

9.7 Service configuration

9.7.1 Configuration of CAMHS Services

Interventions for children with borderline personality disorder will usually be provided by specialist CAMHS, but some children are significantly helped by non-specialist health, social work or education services. In order to recognise the different levels of interventions for many child mental health problems, CAMHS has been organised into four main levels, or tiers, of delivery (NHS Health Advisory Service, 1995; Department of Health, 2004) (see Text Box 5).

Text Box 5: Child and adolescent mental health services (CAMHS) tiers structure

Tier 1	• Provide primary or direct contact with young people, primarily for reasons other than mental health, including primary care/general practice, counselling and psychotherapy, general paediatrics, social services, health visitors and schools • First point of contact with the child/family with mental health problems • Draw on specialist CAMHS personnel who can consult and advise them about working with children and young people in their care who either have, or are at risk of developing, a mental health problem
Tier 2	• Specialist CAMHS professionals working in a community-based setting alongside tier 1 workers, working in primary care, schools and other relevant community settings such as social services • Work as a part of a team, with tier 1 staff, built around the individual child • Able to provide fairly rapid assessment and treatment to

	children within tier 1 settings, as well as consultation/support to tier 1 workers • Able to help identify those children needing referral to more specialist services • Ideally organised into multidisciplinary teams, with good links to tier 3 services, thereby facilitating a more seamless transition across tiers • Sometimes, tier 2 services are provided by the voluntary sector (for example, some but not all adolescent counselling and psychotherapy services)
Tier 3	• Comprise multidisciplinary teams of specialist CAMHS professionals working in (secondary care) specialist CAMHS facilities (e.g. Child and Family Consultation Services or Hospital Liaison Teams) • The National Service Framework for Children's Services states that all PCT / LHB areas should have at least one (or access to one) comprehensive tier 3 multidisciplinary CAMHS team providing specialist co-ordinated assessments and interventions, and offering the full range of appropriate psychological and pharmacological treatments • Offer outreach services to those young people who are housebound or otherwise unable to access tier 3 services based in secondary care facilities, or to work in conjunction with outpatient treatment plans (e.g. monitoring of medication). Emergency services, with 24-hour availability should also be in place in all localities • Provide consultation and training to tier 1 workers and refer when necessary to tier 4 services
Tier 4	• Highly specialised tertiary CAMHS that provide multidisciplinary services for very severe mental health problems, or for those who need very intensive treatment or supervision. These services vary in how they are organised. • Includes highly specialist outpatient treatment e.g., crisis intervention and intensive home-based therapies. • Referrals to tier 4 services usually come from tier 3 CAMHS professionals, and service users are usually discharged back to tier 3 services or outreach services after the tier 4 intervention.

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9.8 Suggested care pathway for young people with borderline personality disorder

Available evidence for the following care pathway was minimal. The care pathway was drawn up by consultation with experts and extrapolation from the adult care pathway.

9.8.1 General principles to be considered when working with young people with borderline personality disorder.

As with adults, both the type of interventions offered to the young person with borderline personality disorder and the manner of delivery are equally important. The general principles outlined for adults that aim to promote a constructive therapeutic relationship are equally applicable, with some caveats, to young people. There are some additional principles that are also important. These general principles for working with young people with borderline personality disorder are outlined below.

Active participation

Young people with borderline personality disorder find coping with the developmental challenges of adolescence difficult and consequently struggle to function effectively at home, at school and with their peer group. Frequently, their experiences in childhood, as well as causing distress and difficulty, have also failed to prepare them for the tasks of adolescence. Given these difficulties and the age of the young person, service providers frequently attempt to take responsibility for the young person or strongly encourage others e.g. parents and carers to do so. This presents particular challenges as the developmental task for young people is to separate and individuate from parents / carers and to develop a degree of autonomy. Young people with borderline personality disorder are often attempting to become autonomous in the absence of key capacities to exercise autonomy safely which increases anxiety in families / carers and professionals alike. Encouraging active participation in this context presents challenges but remains highly important. Promoting active engagement in decision making may assist in developing and maintaining therapeutic alliance.

An assumption of capacity

In working with adults an assumption of capacity is important. With young people a key goal of treatment may be developing capacity. In working with young people with borderline personality disorder professionals must balance the developing autonomy and capacity of the young person with the responsibility of parents and carers. Professionals need to be familiar with the various legal frameworks surrounding consent in young people to manage this balance effectively.

Experienced and well-trained professionals

Young people with borderline personality disorder often form intense relationships with adults endeavouring to help them. Professionals working

with the young person with borderline personality disorder require the capacity to balance validation and nurturing with limit setting around both the frequency and type of contact with the young person. Frequently the intensity and extremity of emotional and behavioural disturbance in these young people combined with the contextual variability in their functioning results in different staff members or groups of staff having widely differing views of the nature of the young person's problems. This can lead to major conflict between staff and is often referred to as 'splitting'. Staff must have the capacity to reflect on this process rather than act upon emotions generated by it and maintain collaborative working relationships both with the young person, his or her family / support system and other professionals engaged with the young person. Staff must avoid lone working, especially in the absence of supervision. Professionals should be alert to circumstances where hard to engage young people form intense relationships with Tier 1 staff where such staff are inadequately trained to manage the difficulties arising in the helping relationship. Such circumstances warrant consultation from more specialist services (Tiers 2 & 3).

Teamwork and communication

Young people frequently see people and circumstances in extreme terms. This tendency is exacerbated for young people with borderline personality disorder. Regular communication between professionals assists to ensure a consistent treatment approach. Clear leadership with an established and open decision making hierarchy can ensure that disagreements in teams over treatment planning and delivery are handled sensitively and effectively.

Monitoring the type and intensity of treatment

Often young people with borderline personality disorder receive either unimodal interventions or multiple uncoordinated interventions. Frequently each additional crisis leads to the addition of new interventions or the involvement of new staff or services. Too little but also too much treatment may be unhelpful. Careful monitoring of the impact of interventions is warranted. In circumstances where young people are highly unstable (e.g. frequent, severe suicidal and / or self-harming behaviour, severe substance abuse or other psychopathology) trauma processing work or exploratory approaches are contra-indicated. In circumstances where a young person in addition to borderline personality disorder also meets criteria for PTSD, professionals should exercise caution in offering trauma focused work where the young person presents with high levels of risk.

Realistic expectations

Improvements in the symptoms and functioning of young people with borderline personality disorder, as with adults, tend to be gradual rather than sudden. Therefore, setting realistic goals for progress in both the short and long term can assist young people in remaining motivated. Professionals must also guard against becoming demoralised about slow rates of change.

Being consistent and reliable

As with adults, young people with borderline personality disorder may find engaging with others difficult because of previous or indeed current experiences of abuse and neglect. Providing a consistent approach to the service user provides a sound basis for developing other therapeutic interventions.

Multi-agency response

Many young people with borderline personality disorder have needs which span health, social care and education. Coordinating a multi-agency response for these young people is often exceptionally difficult. Often, the presence of one agency in the care of the young person reduces the likelihood of involvement, or in some cases precipitates the withdrawal, of another agency. Withdrawal by one agency when the young person has identified needs that are their responsibility is unhelpful. Those involved with the young person will need to decide which agency is taking lead responsibility and ensure mechanisms are in place for clear multi-agency communication. There are some groups of young people with borderline personality disorder who find it especially difficult to access services, for example, those who are homeless and those who are substance dependent. Professionals may need to be creative and flexible in attempting to engage these young people.

Management of acute and chronic risks

As with adults, young people with borderline personality disorder may experience high levels of suicidal ideation and repeated self-harm. Thus, working with young people with borderline personality disorder of necessity requires active engagement in the management of both chronic risks but also acute exacerbations of risk. Acute and chronic risks may require different approaches to risk management. For example, a service may provide time-limited increased support during a period of heightened acute risk. Yet in response to a less severe increase in risk, the same service may promote more active engagement of the young person in problem-solving rather than providing more service input. Professionals must carefully consider strategies to manage acute and chronic risks and care plan these as appropriate.

Staff and services need to retain the capacity neither to under or over-react to crises. Staff must remain alert to the potential dangers of reinforcing behavioural escalations with increased input and involvement and to the risk of withdrawing prematurely during periods of apparent stability and calm. Because striking this balance is difficult, all changes in service input must be carefully considered both with the young person and his or her family / support system and with other professionals e.g. treating team or clinical supervisor.

Focussing interventions solely on risk may lead to inappropriate early withdrawal when risk decreases but also may result in significant interpersonal issues remaining unaddressed leading to later deterioration.

Services must structure interventions to provide ongoing intervention and treatment beyond crisis periods.

Involvement of family / carers

Many young people with borderline personality disorder continue to live with their parents. Even for young people no longer with parents, they live in circumstances where significant others may be legally responsible for them. Family / carer involvement in treatment is an essential component of working with young people with borderline personality disorder. The nature and type of family involvement, however, needs careful consideration. Rarely are family relationships unproblematic and in many cases may contribute significantly to the difficulties of the young person. Equally the levels of difficulty for the young person frequently impact adversely on the families' capacity to function effectively. When young people with borderline personality disorder are engaging in risky behaviours professionals need to carefully consider the balance of confidentiality to the young person with ensuring families and carers are in possession of enough relevant information to make informed decisions about safety and the amount of autonomy to give the young person. Involvement of the young person in this decision making process is helpful as is an attitude of honesty about the reasons for certain responses by professionals.

9.8.2 CAMHs Services

Tier 1

Professionals at Tier 1 are most likely to encounter young people with borderline personality disorder as a consequence of interpersonal difficulties (e.g. bullying at school), as a result of self-harm, or in association with family difficulties. Tier 1 professionals are unlikely to be involved in diagnosing borderline personality disorder, rather they are involved in providing for the service user's physical healthcare, social and educational needs. An awareness of borderline personality disorder and the principles underpinning its management may contextualise the difficulties of the young person with borderline personality disorder and help Tier 1 professionals continue to provide routine services to this vulnerable group of young people. Awareness of borderline personality disorder may prevent inappropriate dismissal of the difficulties presented by the young person and encourage more flexible approaches to meeting the young person's needs. Following appropriate training Tier 1 professionals may be involved in the sensitive detection of borderline type difficulties. Such identified concerns should lead to referral to or consultation with Tier 2 professionals.

Tier 2

Tier 2 professionals provide consultation and training to Tier 1 professionals in regard to all mental health problems. Tier 2 professionals therefore require an awareness of the problems of young people with borderline personality disorder and the general principles of intervention in order to intervene

effectively with Tier 1 professionals. Tier 2 professionals may also be involved in early identification of borderline personality disorder in young people and determining whether more specialist assessment and intervention from Tier 3 is warranted. Young people presenting with serious suicidal behaviour, repeated self-harm combined with deterioration in functioning either at home or at school should be referred to Tier 3 for assessment. Significant family difficulties alongside behavioural concerns also provide circumstances warranting more specialist assessment. Referral to Social Services either under Section 47 (Child Protection) or Section 17 (Child in Need) of the Children Act 2004 may also be required alongside referral to Tier 3.

Tier 2 professionals may consider low-intensity coping or skills interventions focussing on emotion regulation and alternatives to self-harm for young people with sub-threshold symptoms of borderline personality disorder where risk is low and functioning is maintained. In the absence of a robust evidence-base caution should be exercised in using such interventions and professionals should remain alert for signs of deterioration.

Tier 2 professionals, alongside colleagues in Tier 1, often have significant involvement with young people with borderline personality disorder who either refuse referral to Tier 3 in the first instance or who do not engage with Tier 3 services. Whilst Tier 3 services may need to expand the range and type of interventions to engage more effectively this hard-to-reach group of young people, services may also need to develop capacity to provide more extensive consultation and supervision to Tier 2 staff supporting these young people.

Tier 3

Tier 3 services can provide a comprehensive assessment of the young person with borderline personality disorder. Tier 3 services must ensure that they consider borderline personality disorder along with other diagnostic possibilities in formulating the young person's difficulties and be aware that young people assessed and treated at Tier 3 frequently have multiple comorbidities. The management of comorbidities in young people is no different from that for adults (see chapter 8).

Given that most young people with borderline personality disorder live with their families, with foster parents, or in social services residential placements, involving carers in treatment may be helpful, although no studies evaluating such treatment appear to have been undertaken. Some treatment programmes e.g. DBT-A, an adapted form of DBT for young people have specific treatment modalities involving the family. Other programmes e.g. some home-treatment models work entirely with the family. In some treatment models intervention may focus primarily on developing the capacity of families or carers to therapeutically support the young person with borderline personality disorder. Such interventions may be especially important when the young person does not give consent for or is unmotivated to receive

treatment, although evaluation studies do not appear to have been undertaken.

As many young people with borderline personality disorder require a multi-agency response, clarity about the responsibilities of each agency facilitates the delivery of care. Agencies must strive to collaborate to provide coordinated care. Different thresholds for entry into services can compromise this objective. For example, Tier 3 professionals may have concerns about a young person's social care that may not meet social service thresholds for intervention. This can reduce the effectiveness of therapeutic interventions as Tier 3 staff become involved in trying to coordinate or meet social care needs. Likewise social services may find accessing specialist therapy services for some of the young people they care for difficult because Tier 3 staff consider that the young person's social care needs are not met sufficiently to enable therapeutic work to begin. Failure to engage at all with the young person in these circumstances may prevent the success of social services interventions to improve the young person's social care. Professionals need to work flexibly and creatively around these tensions over service thresholds. Respecting the validity of the principles leading to the development of thresholds whilst trying to meet the needs of the young person is required in these circumstances.

Tier 3 teams must develop sub-teams of professionals with expertise in the management of young people with borderline personality disorder. Such professionals must also have the capacity to provide consultation and training to Tier 2 staff. In some areas the specialist borderline personality disorder provision may be nested within Tier 3, in others it may form a stand-alone provision. There is no evidence to support one model over the other. Where the breadth of services offered and level of intensity and expertise in the service for young people with borderline personality disorder is high, these services may be more appropriately considered Tier 4 services.

Healthcare profesionals in Tier 3 should also follow the recommendations for adults in the psychology, pharmacology and management of crises chapters.

Tier 4

For young people with borderline personality disorder Tier 4 services comprise inpatient services, specialist outpatient services and home-based treatment teams. There is an extremely limited evidence base of the effectiveness of treatment in these settings.

Inpatient services - there are several circumstances in which professionals consider admission to inpatient services: to manage an acute crisis, to treat chronic risk, to treat borderline personality disorder itself or to treat a comorbid diagnosis. Admissions for the management of acute risk should be clearly linked to an acute exacerbation of risk, time-limited, and with clear goals in mind. Such admissions may also be required when risk is high and

the motivation of the client to collaborate in treatment is very low or non-existent. The aim of such admissions is to ensure that the client is 'just community ready'. Transfer back to the community is clearly facilitated in circumstances where the young person is effectively engaged in a structured outpatient programme.

Factors warranting consideration for admission by a Tier 4 team for treatment of borderline personality disorder, other Axis I difficulties or chronic risk are repeated self-harm combined with a significant deterioration in functioning and a reduced capacity of either the family or community team to manage the young person. Caution should be exercised in these circumstances; however, as admission to a general purpose adolescent unit with a mixed client group can lead to an escalation of risk and deterioration in symptoms and functioning. The consistent application of the general principles of treatment delivery with this client group and the application of a structured model of intervention during admission may mitigate the potential damaging effects of admission.

Adolescent units offering treatment for chronic risk, borderline personality disorder or other diagnoses must have the following characteristics:

- Clearly defined treatment programme
- A sub-team of professionals with training and expertise in the management of borderline personality disorder
- Both the main team and the sub-team require clear leadership and decision making structures
- A clear theoretical model / therapeutic approach to the treatment of borderline personality disorder that all staff in the sub-team know thoroughly and staff in the wider team are aware of and support
- A capacity to tolerate and take therapeutic risks – in particular the capacity to discharge young people who remain at high risk of suicide
- A system of monitoring of outcomes to ensure that deterioration is noted early and strategies implemented to resolve the problem
- Attention to the mix of clients on the unit. There maybe specific contraindications for mixing young people with acute psychosis and young people with borderline personality disorder in a single treatment programme. Both groups of young people may be adversely affected by the problems of the other, and the requirements of treatment programmes for these two groups differ so widely that staff may experience extreme difficulty in flexibly applying the different approaches needed. Admission of young

people for the management of acute risk alongside those in treatment for a broader range of difficulties may also present challenges and separation of crisis admissions from young people in a more comprehensive treatment programmes may prove more effective.

Specialist home treatment teams

Home treatment teams for adolescents are in the early stages of development in the UK and consequently their place in the treatment of borderline personality disorder has yet to be established. Like inpatient services, existing teams frequently manage acute risk and attempt to address chronic risk and/or low functioning patients.

Services are likely to take different forms dependent on their focus on acute or chronic issues. When focused on acute risk, services usually combine characteristics of assertive outreach and crisis intervention with intensive case management. These services have proved effective both when Tier 3 treatment has been disrupted and as a mechanism for organising an effective outpatient intervention plan. Typically services have a capacity for rapid and intensive engagement lasting no more than a few weeks, followed by patient/family centred intensive case management.

Services focused on chronic risk and/or low functioning are characterised by a stronger psychotherapy focus, a longer duration of treatment and an active engagement phase pre-treatment. These services have also been used as step-down from inpatient or when inpatient stays have become ineffective. This type of intervention might be considered when parenting has become distorted by the patient's presentation and family relationships are undermining individually focused treatment plans.

In most cases, psychoeducational work with parents is required prior to implementing more intensive interventions that may often be experienced as intrusive. These forms of home treatment are best avoided where there are longstanding concerns about parental capacity.

Both types of home base share a number of characteristics: they require experienced staff with expertise in borderline personality disorder and a team structure that allows a high level of supervision and the effective management of risk in the community; each is likely to offer time-limited treatment but of different durations; and each is likely to balance limit setting with developing autonomy. Services need to effectively differentiate young person, parents, family, and wider system interventions and to focus primarily on the management of risk and the promotion of functioning rather than longer-term behavioural change.

In the case of services focused on chronic presentation, staff will require broad-based and sophisticated psychotherapy skills and teams will need to operate from a clear theoretical model.

9.8.3 Transition to adult services

The transition to adult services for young people is often marked by a series of discontinuities in terms of personnel, frequency of treatment (often less intense in adult services) and treatment approach, and often a failure to recognise and adapt treatment to developmental stage. This can be particularly difficult for the young person with borderline personality disorder, who is likely to find endings and beginnings especially challenging. In such circumstances the care programme approach (CPA) and joint working between adult mental health services and CAMHS may facilitate the transition. Flexible working around age-limit cut-offs is also likely to be helpful in promoting smooth transitions.

Many young people who have been treated by CAMHS will not meet the referral criteria for adult mental health services, either because the services do not accept people with a personality disorder diagnosis or because the service does not consider their difficulties to be severe enough to warrant intervention. This latter scenario can be particularly frustrating for young people and CAMHS staff alike, who may have worked together successfully to reduce the intensity and severity of problematic behaviours and are now seeking treatment for the young person for other comorbid conditions or to consolidate treatment gains. In some circumstances this can be a major disincentive for young people in transition to adult services to work constructively on their difficulties.

Protocols with adult mental health services need to be in place to ensure the smooth transition of young people to adult services when they turn 18 years old. Such protocols need to ensure that access criteria to adult services are consistent with young people who have been previously treated by CAMHS. In exceptional circumstances where no age appropriate services are available for young people, adult services need protocols in place for young people admitted to adult wards. These protocols should include liaison with and involvement of CAMHS.

9.9 Overall clinical summary

Young people do present to services with patterns of behaviour and functioning consistent with a diagnosis of borderline personality disorder. Both DSM-IV and ICD-10 allow clinicians to diagnose borderline personality disorder in young people with certain caveats. There is very little evidence of the effectiveness of treatments for young people with borderline personality disorder, which is not surprising given the relatively small evidence base in adults.

Given the limited evidence base, however, there is no reason why the recommendations developed for adults should not be adopted for the treatment and management of young people with borderline personality disorder, with additional recommendations relating to adolescent-specific issues, such as the structure of services and the presence of parents or other carers. Clearly further research into the treatment of borderline personality disorder in young people is required.

9.10 Clinical practice recommendations

Clinical practice recommendations for young people also appear elsewhere in the guideline where they apply to other evidence review chapters.

9.10.1.1 Young people with a diagnosis of borderline personality disorder, or symptoms and behaviour suggestive of the diagnosis, should have access to the full range of treatments and services recommended in this guideline within child and adolescent mental health services (CAMHS).

9.10.1.2 CAMHS professionals working with young people with borderline personality disorder should:

- balance the developing autonomy and capacity of the young person with the responsibilities of parents and carers
- be familiar with the legal framework applying to young people, including the Mental Capacity Act (2005), the Children Act (1989) and the Mental Health Act (2007).

9.10.1.3 CAMHS and adult healthcare professionals should work collaboratively to minimise the negative impact of transferring young people from CAMHS to adult services by:

- timing the transfer based on when this is best for the young person even if this is after they have turned 18
- continuing treatment in CAMHS beyond 18 years if there is a realistic possibility that this may obviate the need for referral to adult mental health services.

9.10.1.4 NHS trusts providing CAMHS should ensure that young people with severe borderline personality disorder have access to tier 4 specialist services if required, which may include:

- inpatient treatment tailored to the needs of young people with borderline personality disorder
- specialist outpatient programmes
- home treatment teams.

10 Summary of recommendations

[A summary of all recommendations will be inserted here after final draft]

11 Appendices

[NOTE: appendices marked as 'On CD' are supplied as separate files for the consultation]

Appendix 1: Scope for the development of the clinical guideline

Final version

14 March 2007

Guideline title

Borderline Personality Disorder: treatment and management

Short title

Borderline personality disorder (BPD)

Background

The National Institute for Health and Clinical Excellence ('NICE' or 'the Institute') has commissioned the National Collaborating Centre for Mental Health to develop a clinical guideline on borderline personality disorder for use in the NHS in England and Wales. This follows referral of the topic by the Department of Health (see appendix). The guideline will provide recommendations for good practice that are based on the best available evidence of clinical and cost effectiveness.

The Institute's clinical guidelines will support the implementation of National Service Frameworks (NSFs) in those aspects of care where a Framework has been published. The statements in each NSF reflect the evidence that was used at the time the Framework was prepared. The clinical guidelines and technology appraisals published by the Institute after an NSF has been issued will have the effect of updating the Framework.

NICE clinical guidelines support the role of healthcare professionals in providing care in partnership with patients, taking account of their individual needs and preferences, and ensuring that patients (and their carers and families, where appropriate) can make informed decisions about their care and treatment.

Clinical need for the guideline

Borderline personality disorder (BPD) is characterised by a pattern of instability of interpersonal relationships, self-image and affects, and by marked impulsivity. Its diagnosis does not imply any specific cause.

Estimates of the prevalence of BPD vary between 0.7 and 2% in the general population. It is estimated to be present in 20% of in-patients in psychiatric wards and between 10 and 30% of out-patients. It is a disorder

predominantly diagnosed in women (75%); although again estimates vary and most of these studies have been in clinical populations, where women predominate as they are more likely to seek treatment. Other estimates indicate that the rate in men (1%) is two and a half times that in women (0.4%). The prevalence of BPD is particularly high in the prison population; in England and Wales it is estimated to be 23% among male remand prisoners, 14% among sentenced male prisoners and 20% among female prisoners.

BPD is defined descriptively, in terms of its associated impairments. There are two main sets of diagnostic criteria in current use, the International Classification of Mental and Behavioural Disorders 10th Revision (ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders fourth edition (DSM-IV). ICD-10 uses the term emotionally unstable personality disorder, dividing this into two variants (impulsive type and borderline type) both of which share the general theme of impulsiveness and lack of self-control. The impulsive variant is characterised by a tendency to conflict and outbursts of anger or violence, difficulty in maintaining any course of action that offers no immediate reward, and instability of mood; the borderline variant is characterised by disturbances of self image, a tendency to unstable relationships, efforts to avoid abandonment, and threats or acts of self harm (including suicide). In DSM-IV, BPD is defined more broadly to include all of the features of the borderline variant of emotionally unstable personality disorder and most of the criteria for the impulsive variant. DSM-IV also defines all personality disorders as axis II disorders. BPD is defined as a cluster B disorder ('dramatic, emotional or erratic' type) along with antisocial, histrionic and narcissistic personality disorders. There is substantial comorbidity of borderline personality disorder (BPD) with common mental disorders such as depressive illness, the range of anxiety disorders or substance misuse disorders.

There is some divergence between ICD-10 and DSM-IV as to whether borderline/emotionally unstable personality disorder can be diagnosed in those younger than 18 years, and this may lead to uncertainties about the usage of the diagnosis in young people. In ICD-10 the disorder comes within the overall grouping of disorders of adult personality and behaviour, but DSM-IV specifies that BPD can be diagnosed in those younger than 18 if the features of the disorder have been present for at least 1 year.

Specific causes of BPD have not been identified. Although the processes that lead to its development remain a matter of debate, it appears likely that BPD develops through the accumulation and interaction of multiple factors, including temperament, childhood and adolescent experiences, and other environmental factors. One common factor in people with BPD is history of traumatic events during childhood and adolescence, in particular physical, sexual and emotional abuse, neglect, hostile conflict, and early parental loss or separation. However, the association with childhood and adolescent trauma is

neither ubiquitous in BPD nor unique to this personality disorder. Other psychosocial and demographic factors associated with the disorder may reflect the consequences of the disorder on the individual's life rather than causal processes. A role for genetic factors mediating the response to environmental factors and life events has been postulated, but the evidence is sparse. Neurobiological mechanisms have also been proposed on the basis of neuroimaging data, but it is unknown whether any biological dysfunction associated with BPD is a cause or consequence of the disorder. Neuropsychological impairments associated with BPD appear to be different from other personality disorders and show specific impairments of memory and emotional processing.

BPD can be a seriously disabling condition and often takes a huge toll on the individual. People with BPD usually develop signs and symptoms of the disorder in adolescence or early adulthood. They may experience difficulties such as considerable changes in mood, lack of confidence, impulsive and self-injurious behaviour, substance use, excessive sensitivity and fears of rejection and criticism. As a consequence it is hard for people with BPD to develop mature and lasting relationships or to function successfully in the home, educational settings and the workplace. Failures in these areas accentuate feelings of rejection, depressive moods and self-destructive impulses. As a result of their difficulty in controlling their impulses and emotions, and also their often distorted perceptions of themselves and others, people with BPD may experience enormous pain and evoke high levels of anxiety in those around them. Suicide is a particular risk in BPD, with up to one in 10 people with BPD committing suicide. The impact of the disorder on the individual is often exacerbated by presence of comorbid conditions such as affective disorders and substance misuse.

In general, the impact of the disorder and the risk of suicide is greatest in early adulthood. The short to medium term outcome is poor, however longer term follow-up is more positive. Although most people with BPD still have significant morbidity. For example, some long-term studies of BPD indicate that only 50% of women and 25% of men diagnosed with the condition gain stability and satisfactory relationships characterised by intimacy.

People with BPD use mental health services at higher rates than people from other mental health diagnostic groups, except for people with schizophrenia. They tend to make heavy demands on services, having frequent contact with mental health and social services, accident and emergency departments, GPs and the criminal justice system, and are likely to be high-cost, persistent, and intensive users of mental health services.

It should be noted that a separate guideline on Antisocial Personality Disorder (ASPD) is being developed in parallel to the development of the BPD guideline. Beyond the differences in the diagnostic criteria for BPD and

ASPD, there are good grounds for developing two separate guidelines for these disorders, rather than one unified guideline on personality disorders, as there are marked differences in the populations the guidelines will address in terms of their interaction with services. People with BPD tend to be treatment seeking and at high risk of self-harm and suicide, whereas people with ASPD tend not to seek treatment, are likely to come into contact with services via the criminal justice system and their behaviour is more likely to be a risk to others. Nevertheless, it is acknowledged that people with either of these diagnoses may present with some symptoms and behaviour normally associated with the other diagnosis.

The guideline

The guideline development process is described in detail in two publications that are available from the NICE website (see 'Further information'). 'The guideline development process: an overview for stakeholders, the public and the NHS' describes how organisations can become involved in the development of a guideline. 'The guidelines manual' provides advice on the technical aspects of guideline development.

This document is the scope. It defines exactly what this guideline will (and will not) examine, and what the guideline developers will consider. The scope is based on the referral from the Department of Health (see appendix). The areas that will be addressed by the guideline are described in the following sections.

Population

Groups that will be covered:

- Adults (aged 18 years and older) with a diagnosis of BPD.
- People younger than 18 years with borderline symptoms, or putative borderline personality disorder.
- People with BPD and a learning disability.

Healthcare setting

The guideline will cover the care provided within primary, community, secondary and specialist health care services within the NHS.The guideline will include specifically:

- care in general practice and NHS community care
- hospital outpatient, day and inpatient care, including secure hospitals
- primary/secondary interface of care
- the transition from child and adolescent services to adult services

- care in prisons and the transition from prison health services to NHS services

This is an NHS guideline. It will comment on the interface with other services such as: prison health services, forensic services, social services and the voluntary sector. It will not include recommendations relating to the services exclusively provided by these agencies; except insofar as the care provided in those institutional settings is provided by NHS healthcare professionals, funded or contracted by the NHS.

Clinical management - areas that will be covered by the guideline

- Early identification of borderline personality disorder: clarification and confirmation of diagnostic criteria currently in use, and therefore the diagnostic factors that trigger the use of this guideline.
- Treatment pathways.
- The full range of treatment and care normally made available by the NHS, including art and music therapy.
- All common psychological interventions currently employed in the NHS, including dynamic psychotherapy and cognitive behavioural treatments.
- The appropriate use of pharmacological interventions, including initiation and duration of treatment, management of side effects and discontinuation. Note that guideline recommendations will normally fall within licensed indications; exceptionally, and only where clearly supported by evidence, use outside a licensed indication may be recommended. The guideline will assume that prescribers will use a drug's summary of product characteristics to inform their decisions for individual patients. Nevertheless, where pharmacological interventions are commonly utilised off-licence in treatment strategies for people with BPD in the NHS, the evidence underpinning their usage will be critically evaluated.
- Combined pharmacological and psychological treatments.
- Therapeutic communities.
- The therapeutic environment, including team and individual professional's functioning and how they are influenced by working with this client group.
- Treatment of people younger than 18 years for borderline symptoms, or putative borderline personality disorder, in so far as the treatment may alter the level of impairment, risk or progression to adult borderline personality disorder.
- Management of common comorbidities in people with BPD, as far as these conditions affect the treatment of BPD.
- Management of BPD in individuals who also have a learning disability.

- Sensitivity to different beliefs and attitudes of different races and cultures.
- The role of the family or carers in the treatment and support of people with BPD (with consideration of choice, consent and help), and support that may be needed by carers themselves.
- The guideline development group will take reasonable steps to identify ineffective interventions and approaches to care. When robust and credible recommendations for re-positioning the intervention for optimal use, or changing the approach to care to make more efficient use of resources, can be made, they will be clearly stated. When the resources released are substantial, consideration will be given to listing such recommendations in the 'Key priorities for implementation' section of the guideline.

Clinical management - areas that will not be covered by the guideline

- Treatments not normally available in the NHS.
- The separate management of comorbid conditions.

Status

Scope

This is the consultation draft of the scope. The consultation period is 21 November – 19 December 2006.

The guideline will cross-refer to relevant clinical guidance issued by the Institute, including:

- Schizophrenia: core interventions in the treatment and management of schizophrenia in primary and secondary care (2002);
- Depression: the management of depression in primary and secondary care (2004); Anxiety: management of generalised anxiety disorder and panic disorder (2004);
- Self-harm: The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary (2004);
- Post Traumatic Stress Disorder; Management of post-traumatic stress disorder in adults in primary, secondary and community care (2005);
- Obsessive Compulsive Disorder: Core interventions in the treatment of obsessive compulsive disorder and body dysmorphic disorder (2005);
- Violence: The short-term management of disturbed/violent behaviour in in-patient psychiatric settings and emergency departments (2005);
- The treatment and management of bipolar disorder (2006);
- Drug misuse: Opiate detoxification of drug misusers in the community and prison settings (expected publication 2007);

- Drug misuse: Psychosocial management of drug misusers in the community and prison settings (expected publication 2007);
- Attention deficit hyperactivity disorder: pharmacological and psychological interventions in children, young people and adults (expected publication 2008).
- Antisocial personality disorder: treatment, management and prevention (expected publication 2008)

Guideline

The development of the guideline recommendations will begin in January 2007.

Further information

Information on the guideline development process is provided in:

- An overview for stakeholders, the public and the NHS (2006 edition)
- The guidelines manual (2006 edition)

These booklets are available as PDF files from the NICE website (http://www.nice.org.uk/page.aspx?o=guidelinesmanual). Information on the progress of the guideline will also be available from the website.

Appendix – Referral from the Department of Health

The Department of Health asked the Institute to develop a guideline:
'… for the evidence-based primary and secondary care treatment of adults diagnosed with borderline personality disorder and to consider which settings are most appropriate for which interventions. Where appropriate evidence related to those with learning disability should be included.'

Appendix 2: Declarations of interests by GDG members

With a range of practical experience relevant to borderline personality disorder in the GDG, members were appointed because of their understanding and expertise in healthcare for people with borderline personality disorder and support for their families and carers, including: scientific issues; health research; the delivery and receipt of healthcare, along with the work of the healthcare industry; and the role of professional organisations and organisations for people with borderline personality disorder and their families and carers.

To minimise and manage any potential conflicts of interest, and to avoid any public concern that commercial or other financial interests have affected the work of the GDG and influenced guidance, members of the GDG must declare as a matter of public record any interests held by themselves or their families which fall under specified categories (see below). These categories include any relationships they have with the healthcare industries, professional organisations and organisations for people with borderline personality disorder and their families and carers.

Individuals invited to join the GDG were asked to declare their interests before being appointed. To allow the management of any potential conflicts of interest that might arise during the development of the guideline, GDG members were also asked to declare their interests at each GDG meeting throughout the guideline development process. The interests of all the members of the GDG are listed below, including interests declared prior to appointment and during the guideline development process.

Categories of interest

- **Paid employment**

- **Personal pecuniary interest:** financial payments or other benefits from either the manufacturer or the owner of the product or service under consideration in this guideline, or the industry or sector from which the product or service comes. This includes holding a directorship, or other paid position; carrying out consultancy or fee paid work; having shareholdings or other beneficial interests; receiving expenses and hospitality over and above what would be reasonably expected to attend meetings and conferences.

- **Personal family interest:** financial payments or other benefits from the healthcare industry that were received by a member of your family.

- **Non-personal pecuniary interest:** financial payments or other benefits received by the GDG member's organisation or department, but where the GDG member has not personally received payment, including fellowships and other support provided by the healthcare industry. This includes a grant or fellowship or other payment to sponsor a post, or contribute to the running costs of the department; commissioning of research or other work; contracts with, or grants from, NICE.

- **Personal non-pecuniary interest:** these include, but are not limited to, clear opinions or public statements you have made about borderline personality disorder, holding office in a professional organisation or advocacy group with a direct interest in borderline personality disorder, other reputational risks relevant to borderline personality disorder.

Declarations of interest	
Professor Peter Tyrer- Chair, Guideline Development Group	
Employment	Imperial College London
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	Prinicipal Investigator for: National coordinating Centre for Health Technology Assessment (NCCHTA) for a randomized trial – Neuroleptics for Aggressive Challenging Behaviour in Intellectual Disability (NACHBID), 2002- 2007 (£630,943) IMPALOX study into the assessment of dangerous and severe personality disorder (DSPD) programme in England (Home Office), 2000-2006 (£743,276) The effect of Nidotherapy on antisocial behaviour and attitudes to intervention (National Programme for Forensic Mental Health), 2005-2006 (£70,688) Study on the feasibility of carrying out a randomized controlled trial of therapeutic community treatment for severe personality disorder at the Henderson Hospital in 1999-2000 (High Security Commissioning Board R&D) (£13,200) Secondary Investigator on two projects concerned with the evaluation of new forensic services for

	personality disorder (PI- Dr Paul Moran) and on new services for personality disorder in general psychiatric services (PI- Dr Mike Crawford).
Personal non-pecuniary interest	None
Professor Anthony Bateman	
Employment	Consultant Psychiatrist, Barnet, Enfield, and Haringey Mental Health NHS Trust and Visiting Professor University College London
Personal pecuniary interest	Consultacy for Eli Lilly on the development of a protocol for a RCT of Olanzapine in borderline personality disorder, 2003-2004 ($ 2000) Authored books on mentalization based therapy for borderline personality disorder.
Personal family interest	None
Non-personal pecuniary interest	Eli Lilly: study of Olanzapine in borderline personality disorder. Money received for patient participation, 2004-2006 (total received by hospital £60,000) Wyeth Pharmaceuticals: research grant – depression & personality disorder in primary care, 2003-2005 (£25,000) Borderline Personality Disorder Research Foundation, grant for the study of mentalization based therapy for borderline personality disorder, 2004-2007 ($420,000) London Developmenty Centre - Personality Disorder Training, 2003-2005 (£56,000) Barnet, Enfield and Haringey MHT is developing links with pharamaceutical industry for drug trials. Runs training courses on mentalization based therapy for borderline personality disorder, monies earnt go to employer.
Personal non-pecuniary interest	Developed and interested in dynamic processes and mentalization Based Treatment (MBT) for borderline personality disorder. Continuing research and in receipt of research grants for outcomes in borderline

	personality disorder using MBT from Borderline Personality Disorder Research Foundation (BPDRF)
Professor Nick Bouras	
Employment	Professor Emeritus of Psychiatry, Health Service and Population Research Department, Institute of Psychiatry, King's College London Honorary Consultant Psychiatrist, South London and Maudsley NHS Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	Special Trustees SLAM – Guy's and St Tomas' Charity – European Union on Stigma and Mental Illness
Personal non-pecuniary interest	None
Ms Jenifer Clarke-Moore (2007)	
Employment	Consultant Nurse, Gwent Healthcare NHS Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	Research fellowship to evaluate an education/ training programme for working with people with a personality disorder, 2006 (£9,000)
Personal non-pecuniary interest	None
Dr Mike Crawford	
Employment	Reader in Mental Health Services Research, Imperial College London; Honorary Consultant Psychiatrist Central & North West London NHS Foundation Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Ms Victoria Green	
Employment	Research Assistant, Dartington Social Research Unit, Dartington, Totnes, Devon
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Dr Rex Haigh	

Employment	Consultant Psychiatrist, Berkshire Healthcare NHS Foundation Trust
Personal pecuniary interest	Project Lead for Community of Communities Quality Improvement Network, Royal College of Psychiatrists' Research and Training Unit, 2002 – present. Honorarium approx £10,000 p.a. to research budget at Nottingham University Personality Disorder Institute.
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	Board or executive committee member of several relevant charitable and not-for-profit organisations: Trustee - Community Housing and Therapy (registered charity); Trustee - Association of Therapeutic Communites; Association of Therapeutic Communities (registered charity); Borderline UK Board (not for profit limited company); Personality Plus Board (community interest company); "Exclusion Link" (community interest company) - all as unpaid voluntary work
Mr Dennis Lines	
Employment	Semi-retired
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Dr David Moore	
Employment	Nottinghamshire County PCT
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Dr Paul Moran	
Employment	Clinical Senior Lecturer and Honorary Consultant Psychiatrist, Health Services & Population Research Department, Institute of Psychiatry, King's College London
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	Medical Research Council - Joint crisis plans for people with personality disorder, 2008-2011 (£423,152)

	Department of Health - 18 month follow-up of men admitted to above pilot services, 2008 (£7,000) NHS Service Delivery and Organisation Research and Development Programme - An evaluation of pilot services for people with personality disorder in adult forensic settings, 2005 – 2007 (£196,440) Nuffield Foundation - The relative effects of maternal personality disorder and depression on infant development at 18 months, 2005-2007 (£110,702) Foundation for the study of infant deaths. The impact of maternal personality disorder and depression on early infant care, 2003- 2005 (£93,000) NHS Service Delivery and Organisation Research and Development Programme - Learning the lessons: An evaluation of pilot community services for adults with personality disorder, 2005 - 2007 (£286,076) Wellcome Trust: Training fellowship - Common mental disorders among women victims of trafficking returned to Moldova, 2006-2009 (£75,726) Department of Health – The impact of personality disorder on the needs and pathways to psychiatric care of mentally ill in-patients, 2003 – 2004 (£39, 987) National Programme on Forensic Mental Health; Department of Health - Access to treatment for people with severe personality disorder, 2001 – 2005 (£186,073)
Personal non-pecuniary interest	None
Professor Glenys Parry	
Employment	Professor of Applied Psychological Therapies, Centre for Psychological Services Research, University of Sheffield; Consultant Clinical Psychologist, Sheffield Care Trust
Personal pecuniary interest	None
Personal family interest	None

Non-personal pecuniary interest	A method for identifying key psychotherapeutic competencies in personality disorder. The mental Health Foundation, 1996-2001 (£70,000) Psychological treatments for severe and complex mental health problems / personality disorders: SPeDi trial a randomised controlled trial Sheffield Health and Social Research Consortium, 2005-2009 (£120,607) Feasibility study of a Practice Research Network in Cognitive Analytic Therapy. Association for Cognitive Analytic Therapy, 2005 (£14,000)
Personal non-pecuniary interest	Member of HTA-funded technology appraisal team: Psychological therapies including dialectical behaviour therapy for borderline personality disorder: a systematic review and preliminary economic evaluation, 2006. Member of technology appraisal team for NICE guideline on computerised Cognitive Behviour Therapy, 2005. Member of the following professional associations: British Psychological Society; Division of Clinical Psychology; UKCP; American Psychological Association (foreign affiliate); ACAT (trainer and supervisor in Cognitive Analytic Therapy); Society for Psychotherapy Research
Mrs Carol Paton	
Employment	Chief Pharmacist, Oxleas NHS Foundation Trust
Personal pecuniary interest (non-specific)	Advisory board for Eli Lilly relating to products currently subject to clinical trials (depot IM olanzapine and novel drugs in phase 2 studies) - none of which are currently licensed or intended to treat borderline personality disorder, 2008 (consultancy not exceeding £3000 p.a); Advisory board and consultancy for Eli Lilly for duloxetine (antidepressant), 2007 (consultancy not exceeding £3000 p.a); 2004/05 BMS £1250 consultancy (psychosis); 2004/05 Eli Lilly £2500 consultancy (psychosis and depression); 2003/04 Eli Lilly £1500 consultancy

	(psychosis).
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	NICE Guideline Development Group member for depression guideline (2003-2004) and depression (update) (2007-2008); specialist advisor for depression in children guideline (2004-2005); specialist advisor for violence guideline (2004-2005). Attendance at ECNP sponsored by Janssen, 2007
Dr Mark Sampson	
Employment	Clinical Psychologist, Manchester Mental Health and Social Care Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	Accredited cognitive behavioural therapist and cognitive analytic therapist (practitioner level)
Dr Michaela Swales	
Employment	Consultant Clinical Psychologist, Conwy & Denbighshire NHS Trust and Bangor University
Personal pecuniary interest	None
Personal family interest	Husband is the managing director of, and major shareholder in Integral Business Support Ltd, a company that is the sole UK provider of training in Dialtectical Behaviour Therapy (DBT) a treatment covered by the guideline.
Non-personal pecuniary interest	Director of the British Isles Training Team that provides training in DBT to mental health professionals and healthcare organisations throughout the UK and Eire. This role is part of Dr Swales' university appointment as a lecturer-practitioner within the school of Psychology, University of Wales, Bangor. The School of Psychology receives the income from the DBT training outlined above. This income funds a secretary for Dr Swales at the University, training for clinicians in the local NHS Trust (Conwy and Denbighshire NHS Trust) and has at times funded a psychology assistant post in the clinical service in which Dr Swales is employed (Conwy and Denbighshire NHS Trust). British Isles Training Team is also in possession of a license to deliver the

	training from the American Training Company BTech LLC. The school of Psychology is also in receipt of a grant from ESRC under the Knowledge Transfer Programme (KTP) to further develop training in DBT and increase dissemination of the treatment. The grant was awarded over three years to the School of Pschology working jointly with Integral Business Support Ltd (see section above on Personal Family Interest). (£104,707). The company partner will contribute £50,760 to the project over the three year period. Written a book on DBT due for publication September 2008.
Personal non-pecuniary interest	Regular presentations at conferences on DBT.
Dr Angela Wolff	
Employment	West London Mental Health Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None

National Collaborating Centre for Mental Health

Dr Tim Kendall – Facilitator, Guideline Development Group	
Employment	Joint Director, National Collaborating Centre for Mental Health; Deputy Director, Royal College of Psychiatrists' Research and Training Unit; Consultant Psychiatrist and Medical Director, Sheffield Care Trust
Personal pecuniary interest	
Personal family interest	
Non-personal pecuniary interest	Annual grant to develop guidelines (NICE, c £1,200,000); funding for attendance at a 2-day symposium on evidence-based medicine in psychiatry at the London School of Economics (Economic and Social Research Council); funding for attendance at a symposium on problems with the evidence base in the pharmaceutical industry at Nottingham University (Economic and Social Research Council)

Personal non-pecuniary interest	On behalf of the NCCMH, met with Jan Balmer of ABPI to discuss Department of Health/Industry proposals for developing implementation tools for the schizophrenia guideline. Expressed views on a number of news and current affairs television and radio programmes on the following topics; the role of selective publishing in the pharmaceutical industry; improving access to psychological therapies; use of seroxat in children and adults; use of SSRI's in adults; use of antipsychotics for the treatment of dementia; use of cholinesterase inhibitors for the treatment of dementia.
Ms Linda Bayliss	
Employment	Research Assistant, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Ms Rachel Burbeck	
Employment	Systematic Reviewer, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Ms ELizabeth Costigan (2007)	
Employment	Project Manager, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Ms Sarah Hopkins	
Employment	Project Manager, National collaborating Centre for Mental Health
Personal pecuniary interest	None

Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Mrs Farheen Jeeva	
Employment	Health Economist, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Ms Poonam Sood (2007)	
Employment	Research Assistant, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Ms Sarah Stockton	
Employment	Information Scientist, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Dr Clare Taylor	
Employment	Editor, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Mr Loukas Xaplanteris (2007)	
Employment	Health Economist, National collaborating Centre for Mental Health
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None

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Appendix 3: Special advisors to the Guideline Development Group

Dr Andrew Cotgrove	Cheshire and Wirral Partnership NHS Trust
Professor Kate Davidson	University of Glasgow
Ms Jane Dudley	British Association of Art Therapy
Professor Edzard Ernst	Peninsula Medical School
Professor Roger Mulder	Univeristy of Otago
Professor John Oldham	The Menninger Clinic
Professor Kenneth Silk	University of Michigan Health System
Professor Paul Soloff	University of Pittsburgh
Dr Alison Wood	Bolton Salford & Trafford Mental Health NHS Trust

Appendix 4: Stakeholders and experts who submitted comments in response to the consultation draft of the guideline

Stakeholders

Experts

[NOTE: To be completed after the consultation period]

Appendix 5: Researchers contacted to request information about unpublished or soon-to-be published studies

Dr Helen Andrea
Dr Dawn Bales
Dr Nick Bendit
Professor Donald Black
Dr Gregory Carter
Dr Andrew Chanen
Dr Susan Clarke
Dr Cottraux
Dr Hans Eriksson
Professor Peter Fonagy
Professor Paul Links
Professor Roel Verheul

1 Appendix 6: Clinical questions

No	CQ/Subsidiary questions
Reliable identification and assessment of borderline personality disorder	
1	What can help clinicians identify features of borderline personality disorder in adolescents?
2a	Are there tools/assessments which could be used ?
2b	Are there tools/assessments which could be used in primary care?
Treatment options for people with borderline personality disorder	
3	What interventions and care processes are effective in improving outcomes or altering the developmental course for people under the age of 18 with borderline symptoms or putative borderline personality disorder (i.e. would meet diagnosis if over 18)?
4	For people with borderline personality disorder which treatments are associated with improvement in mental state and quality of life, reduction in self-harm, service use, and risk-related behaviour, and/or improved social and personal functioning whilst minimising harms?
4a	Psychological: which psychological therapy is most effective? (CBT, mentalisation, BT, psychodynamic, CAT, group therapy, family therapy, schema-focussed therapy, transference-focussed and DBT, misc)
4b	Psychosocial (look at literature)
4c	Pharmacological: which pharmacological therapies maximises benefits whilst minimises harms? (+ comorbidities)
4d	Combined therapy: psychological therapy + medication
4e	Therapeutic communities
4f	Arts therapies
4g	Complementary [define which]
5	Are treatment options altered in the presence of common comorbidities (depression, psychosis, anxiety disorders, bipolar disorder, substance use disorder, other axis II disorders)?
5a	How should complex and severe BDP be managed, including management strategies (over a period of time) and multiple comorbidities?
6	How should the treatment of common comorbidities (depression, psychosis, anxiety disorders, bipolar disorder, substance use disorder, other axis II disorders) be altered in the presence of BPD?
Service configuration for people with borderline personality disorder	
7	What type of services maximise effectiveness and safety and minimise harm (taking into account long-term outcomes) for the delivery of specific treatments for people with borderline personality disorder? (eg Day hospitals, inpatient, therapeutic communities, use of enhanced care programming, team-based or individual-based care, partial hospitalisation)
7a	What is the role of inpatient (acute, forensic) care in the management of people with borderline personality disorder?
7b	What is the role of specialist services (including community-based) in the medium- and long-term management of people with borderline personality disorder?
7c	Is long-term inpatient care in the treatment of BPD effective?
7d	Are particular therapies suited for particular service settings?
7e	How should healthcare professionals from other healthcare settings care for people

	with borderline personality disorder? (primary care, A&E, crisis services, crisis houses, acute care)
8	How should NHS services interface with each other and with non-NHS services for people with borderline personality disorder? (Including the transition from adolescent to adult services)
9	Which treatment pathways, care processes and clinical principles (case management, care coordination, CPA etc):
9a	maximise the effectiveness of care and reduce harm
10	How can healthcare professionals involved in the care of people with borderline personality disorder best be supported? (supervision, training, case loads etc)
Family/carers of people with borderline personality disorder	
11	Do families (including children) and carers of people with borderline personality disorder have specific care needs?
11a	If so, what specific interventions should be offered? [overlap with SCIE-NICE g/l?]
12	Do family or carers, through their behaviour, styles of relating and relationships, influence clinical and social outcomes or well being for people with borderline personality disorder?
12a	If so, what interventions should be offered?
Special groups with borderline personality disorder	
13	How should treatment and service configurations be adapted for people with borderline personality disorder who have learning disabilities? Take into account severity of learning disability - heterogeneous group
14	How should treatment and service configurations be adapted for people with borderline personality disorder who are from an ethnic minority?
15	How should treatment and service configurations be adapted for people with borderline personality disorder who are planning a pregnancy, pregnant or breastfeeding?
Service User and Carer Experience	
16	What is the experience of people with borderline personality disorder of care in different settings?
17	What is the experience of carers of people with borderline personality disorder of care in different settings?

Appendix 7: Search strategies for the identification of clinical studies

1. Guideline topic search strategies

a. MEDLINE, EMBASE, PsycINFO, CINAHL – Ovid interface

1 (borderline state or borderline person$).sh.
2 borderline$.mp. and exp personality disorders/
3 (borderline$ adj3 (disorder$ or person$ or PD$1 or state$)).tw. or (borderline$ and personalit$).mp.
4 (borderline$ and cluster b).mp.
5 (emotion$ adj2 (instabil$ or unstable) adj3 (character$ or difficult$ or disorder$ or dysfunction$ or PD or person$1 or personalit$ or state$)).tw.
6 or/1-5
7 (multiple personality disorder$ or personality disorder$).sh.
8 (personalit$ adj (disorder$ or dysfunction$)).tw.
9 (dsm and (axis and II)).mp.
10 or/7-9
11 or/6,10

b. Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects, Cochrane Central Register of Controlled Trials – Wiley Interscience interface

1 MeSH descriptor Borderline Personality Disorder, this term only
2 (borderline*)
3 MeSH descriptor Personality Disorders explode all trees
4 (#2 AND #3)
5 (borderline* near/3 (disorder* or person* or PD* or state*)) or (borderline* and personalit*)
6 (borderline* and cluster near/1 b)
7 (emotion* near/2 (instabil* or unstable) near/3 (character* or difficult* or disorder* or dysfunction* or PD or person* or state*))
8 (#1 OR #4 OR #5 OR #6 OR #7)
9 MeSH descriptor Multiple Personality Disorder, this term only
10 MeSH descriptor Personality Disorders, this term only
11 (personalit* near/1 (disorder* or dysfunction*))
12 (dsm and (axis and II))

13 (#9 OR #10 OR #11 OR #12)
14 (#8 OR #13)

2. Systematic review search filters

a. MEDLINE, EMBASE, PsycINFO, CINAHL – Ovid interface

1 cochrane library/ or exp literature searching/ or exp literature review/ or exp review
literature/ or systematic review/ or meta analysis/ or meta-nalysis as topic/
2 ((systematic or quantitative or methodologic$) adj5 (overview$ or review$)).mp.
3 (metaanaly$ or meta analy$ or metasynthesis or meta synethesis).mp.

4 (research adj (review$ or integration)).mp.
5 reference list$.ab.
6 bibliograph$.ab.
7 published studies.ab.
8 relevant journals.ab.
9 selection criteria.ab.
10 (data adj (extraction or synthesis)).ab.
11 (handsearch$ or ((hand or manual) adj search$)).tw.
12 (mantel haenszel or peto or dersimonian or der simonian).tw.
13 (fixed effect$ or random effect$).tw.
14 ((bids or cochrane or index medicus or isi citation or psyclit or psychlit or scisearch or
science citation or (web adj2 science)) and review$).mp.
15 (systematic$ or meta$).pt. or (literature review or meta analysis or systematic
review).md.
16 (pooled or pooling).tw.
17 or/1-16

3. Randomised controlled trial search filters

a. MEDLINE, EMBASE, PsycINFO, CINAHL – Ovid interface

1 exp clinical trials/ or exp clinical trial/ or exp controlled clinical trials/

2 exp crossover procedure/ or exp cross over studies/ or exp crossover design/
3 exp double blind procedure/ or exp double blind method/ or exp double blind

studies/ or exp single blind procedure/ or exp single blind method/ or exp single
blind studies/
4 exp random allocation/ or exp randomization/ or exp random assignment/ or exp
random sample/ or exp random sampling/
5 exp randomized controlled trials/ or exp randomized controlled trial/ or
randomized controlled trials as topic/
6 (clinical adj2 trial$).tw.
7 (crossover or cross over).tw.
8 (((single$ or doubl$ or trebl$ or tripl$) adj5 (blind$ or mask$ or dummy)) or
(singleblind$ or doubleblind$ or trebleblind$)).tw.
9 (placebo$ or random$).mp.
10 (clinical trial$ or random$).pt. or treatment outcome$.md.
11 animals/ not (animals/ and human$.mp.)
12 (animal/ or animals/) not ((animal/ and human/) or (animals/ and humans/))
13 (animal not (animal and human)).po.
14 (or/1-10) not (or/11-13)

1 Appendix 8: Clinical study data extraction form

Topic Area:		**Report reference ID:**			
Comparisons:					**Total N**
Ref List checked		Rev Man		Study Dbase	
Data Checked		Reference Manager updated		Excluded (record reason in Notes below)	

2

Randomised?		**Blind?**		
Age:		Young/Elderly (mean age over 65) Mean Age % women		
Setting:		In/Out/Mixed/Primary Care (80% patients)		
Analysis:		Completer/ITT (continuous data)		
Diagnosis			% comorbid Axis I	
			% cormobid Axis II	
Mean baseline				

Completed by:				**Study reference ID:**			
1 TREATMENT GROUP:						**N randomised:**	
Leaving study early (any reason)		**Leaving study early (side effects)**		**Side Effects (total)**			
n	*N*	*n*	*N*	*n*	*N*	*n*	*N*

Continuous data

	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*
	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*
	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*
	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*

Trial length:
Interventions (Dose): 1 2 3

Dichotomous data

	n	*N*	*n*	*N*	*n*	*N*	*n*	*N*

	n	*N*	*n*	*N*	*n*	*N*	*n*	*N*
	n	*N*	*n*	*N*	*n*	*N*	*n*	*N*

2 TREATMENT GROUP:						**N randomised:**	
Leaving study early (any reason)		**Leaving study early (side effects)**		**Side Effects (total)**			
n	*N*	*n*	*N*	*n*	*N*	*n*	*N*

1

2 **Continuous data**

	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*
	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*
	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*
	n	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*	*n*	*Mean*	*SD*

3

4 **Dichotomous data**

	n	*N*	*n*	*N*	*n*	*N*	*n*	*N*

	n	*N*	*n*	*N*	*n*	*N*	*n*	*N*
	n	*N*	*n*	*N*	*n*	*N*	*n*	*N*

1

Appendix 9: Quality checklists for clinical studies and reviews

The methodological quality of each study was evaluated using dimensions adapted from SIGN (SIGN, 2001). SIGN originally adapted its quality criteria from checklists developed in Australia (Liddel et al., 1996). Both groups reportedly undertook extensive development and validation procedures when creating their quality criteria.

Quality Checklist for a Systematic Review or Meta-Analysis			
Study ID:			
Guideline topic:		Key question no:	
Checklist completed by:			
SECTION 1: INTERNAL VALIDITY			
In a well-conducted systematic review:		In this study this criterion is: *(Circle one option for each question)*	
1.1	The study addresses an appropriate and clearly focused question.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.2	A description of the methodology used is included.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.3	The literature search is sufficiently rigorous to identify all the relevant studies.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.4	Study quality is assessed and taken into account.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.5	There are enough similarities between the studies selected to make combining them reasonable.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
SECTION 2: OVERALL ASSESSMENT OF THE STUDY			
2.1	How well was the study done to minimise bias? *Code* ++, + *or* –		

Notes on the use of the methodology checklist: systematic reviews and meta-analyses

Section 1 identifies the study and asks a series of questions aimed at establishing the internal validity of the study under review — that is, making sure that it has been carried out carefully and that the outcomes are likely to be attributable to the intervention being investigated. Each question covers an aspect of methodology that research has shown makes a significant difference to the conclusions of a study.

For each question in this section, one of the following should be used to indicate how well it has been addressed in the review:

- well covered
- adequately addressed
- poorly addressed
- not addressed (that is, not mentioned or indicates that this aspect of study design was ignored)
- not reported (that is, mentioned but insufficient detail to allow assessment to be made)
- not applicable.

1.1 The study addresses an appropriate and clearly focused question

Unless a clear and well-defined question is specified in the report of the review, it will be difficult to assess how well it has met its objectives or how relevant it is to the question to be answered on the basis of the conclusions.

1.2 A description of the methodology used is included

One of the key distinctions between a systematic review and a general review is the systematic methodology used. A systematic review should include a detailed description of the methods used to identify and evaluate individual studies. If this description is not present, it is not possible to make a thorough evaluation of the quality of the review, and it should be rejected as a source of level-1 evidence (though it may be useable as level-4 evidence, if no better evidence can be found).

1.3 The literature search is sufficiently rigorous to identify all the relevant studies

A systematic review based on a limited literature search — for example, one limited to MEDLINE only — is likely to be heavily biased. A well-conducted review should as a minimum look at EMBASE and MEDLINE and, from the late 1990s onward, the Cochrane Library. Any indication that hand searching of key journals, or follow-up of reference lists of included studies, were carried out in addition to electronic database searches can normally be taken as evidence of a well-conducted review.

1.4 Study quality is assessed and taken into account

A well-conducted systematic review should have used clear criteria to assess whether individual studies had been well conducted before deciding whether to include or exclude them. If there is no indication of such an assessment, the review should be rejected as a source of level-1 evidence. If details of the assessment are poor, or the methods are considered to be inadequate, the quality of the review should be downgraded. In either case, it may be worthwhile obtaining and evaluating the individual studies as part of the review being conducted for this guideline.

1.5 There are enough similarities between the studies selected to make combining them reasonable

Studies covered by a systematic review should be selected using clear inclusion criteria (see question 1.4 above). These criteria should include, either implicitly or explicitly, the question of whether the selected studies can legitimately be compared. It should be clearly ascertained, for example, that the populations covered by the studies are comparable, that the methods used in the investigations are the same, that the outcome measures are comparable and the variability in effect sizes between studies is not greater than would be expected by chance alone.

Section 2 relates to the overall assessment of the paper. It starts by rating the methodological quality of the study, based on the responses in Section 1 and using the following coding system:

++	All or most of the criteria have been fulfilled. Where they have not been fulfilled, the conclusions of the study or review are thought **very unlikely** to alter.
+	Some of the criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought **unlikely** to alter the conclusions.
–	Few or no criteria fulfilled. The conclusions of the study are thought **likely or very likely** to alter.

Quality Checklist for an RCT			
Study ID:			
Guideline topic:		**Key question no:**	
Checklist completed by:			
SECTION 1: INTERNAL VALIDITY			
In a well-conducted RCT study:		**In this study this criterion is: (Circle one option for each question)**	
1.1	The study addresses an appropriate and clearly focused question.	Well covered Adequately addressed	Not addressed Not reported Not applicable

		Poorly addressed	
1.2	The assignment of subjects to treatment groups is randomised.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.3	An adequate concealment method is used.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.4	Subjects and investigators are kept 'blind' about treatment allocation.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.5	The treatment and control groups are similar at the start of the trial.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.6	The only difference between groups is the treatment under investigation.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.7	All relevant outcomes are measured in a standard, valid and reliable way.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.8	What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed?		
1.9	All the subjects are analysed in the groups to which they were randomly allocated (often referred to as intention-to-treat analysis).	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.10	Where the study is carried out at more than one site, results are comparable for all sites.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
SECTION 2: OVERALL ASSESSMENT OF THE STUDY			
2.1	How well was the study done to minimise bias? *Code ++, + or –*		

1

Notes on the use of the methodology checklist: RCTs

Section 1 identifies the study and asks a series of questions aimed at establishing the internal validity of the study under review — that is, making sure that it has been carried out carefully and that the outcomes are likely to be attributable to the intervention being investigated. Each question covers an aspect of methodology that research has shown makes a significant difference to the conclusions of a study.

For each question in this section, one of the following should be used to indicate how well it has been addressed in the review:

- well covered
- adequately addressed
- poorly addressed
- not addressed (that is, not mentioned or indicates that this aspect of study design was ignored)
- not reported (that is, mentioned but insufficient detail to allow assessment to be made)
- not applicable.

1.1 The study addresses an appropriate and clearly focused question

Unless a clear and well-defined question is specified, it will be difficult to assess how well the study has met its objectives or how relevant it is to the question to be answered on the basis of its conclusions.

1.2 The assignment of subjects to treatment groups is randomised

Random allocation of patients to receive one or other of the treatments under investigation, or to receive either treatment or placebo, is fundamental to this type of study. If there is no indication of randomisation, the study should be rejected. If the description of randomisation is poor, or the process used is not truly random (for example, allocation by date or alternating between one group and another) or can otherwise be seen as flawed, the study should be given a lower quality rating.

1.3 An adequate concealment method is used

Research has shown that where allocation concealment is inadequate, investigators can overestimate the effect of interventions by up to 40%. Centralised allocation, computerised allocation systems or the use of coded identical containers would all be regarded as adequate methods of concealment and may be taken as indicators of a well-conducted study. If the method of concealment used is regarded as poor, or relatively easy to subvert,

the study must be given a lower quality rating, and can be rejected if the concealment method is seen as inadequate.

1.4 Subjects and investigators are kept 'blind' about treatment allocation

Blinding can be carried out up to three levels. In single-blind studies, patients are unaware of which treatment they are receiving; in double-blind studies, the doctor and the patient are unaware of which treatment the patient is receiving; in triple-blind studies, patients, healthcare providers and those conducting the analysis are unaware of which patients receive which treatment. The higher the level of blinding, the lower the risk of bias in the study.

1.5 The treatment and control groups are similar at the start of the trial

Patients selected for inclusion in a trial should be as similar as possible, in order to eliminate any possible bias. The study should report any significant differences in the composition of the study groups in relation to gender mix, age, stage of disease (if appropriate), social background, ethnic origin or comorbid conditions. These factors may be covered by inclusion and exclusion criteria, rather than being reported directly. Failure to address this question, or the use of inappropriate groups, should lead to the study being downgraded.

1.6 The only difference between groups is the treatment under investigation

If some patients receive additional treatment, even if of a minor nature or consisting of advice and counselling rather than a physical intervention, this treatment is a potential confounding factor that may invalidate the results. If groups are not treated equally, the study should be rejected unless no other evidence is available. If the study is used as evidence, it should be treated with caution and given a low quality rating.

1.7 All relevant outcomes are measured in a standard, valid and reliable way

If some significant clinical outcomes have been ignored, or not adequately taken into account, the study should be downgraded. It should also be downgraded if the measures used are regarded as being doubtful in any way or applied inconsistently.

1.8 What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed?

The number of patients that drop out of a study should give concern if the number is very high. Conventionally, a 20% drop-out rate is regarded as acceptable, but this may vary. Some regard should be paid to why patients drop out, as well as how many. It should be noted that the drop-out rate may be expected to be higher in studies conducted over a long period of time. A higher drop-out rate will normally lead to downgrading, rather than rejection, of a study.

1.9 All the subjects are analysed in the groups to which they were randomly allocated (often referred to as intention-to-treat analysis)

In practice, it is rarely the case that all patients allocated to the intervention group receive the intervention throughout the trial, or that all those in the comparison group do not. Patients may refuse treatment, or contraindications arise that lead them to be switched to the other group. If the comparability of groups through randomisation is to be maintained, however, patient outcomes must be analysed according to the group to which they were originally allocated, irrespective of the treatment they actually received. (This is known as intention-to-treat analysis.) If it is clear that analysis is not on an intention-to-treat basis, the study may be rejected. If there is little other evidence available, the study may be included but should be evaluated as if it were a non-randomised cohort study.

1.10 Where the study is carried out at more than one site, results are comparable for all sites

In multi-site studies, confidence in the results should be increased if it can be shown that similar results have been obtained at the different participating centres.

Section 2 relates to the overall assessment of the paper. It starts by rating the methodological quality of the study, based on the responses in Section 1 and using the following coding system:

++	All or most of the criteria have been fulfilled. Where they have not been fulfilled, the conclusions of the study or review are thought **very unlikely** to alter.
+	Some of the criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought **unlikely** to alter the conclusions.
–	Few or no criteria fulfilled. The conclusions of the study are thought **likely or very likely** to alter.

Quality Checklist for a Cohort Study*			
Study ID:		Relevant questions:	
Guideline topic:			
Checklist completed by:			
SECTION 1: INTERNAL VALIDITY			
In a well conducted cohort study:		**In this study the criterion is: (*Circle one option for each question)***	
1.1	The study addresses an appropriate	Well covered	Not addressed

	and clearly focused question.	Adequately addressed Poorly addressed	Not reported Not applicable
SELECTION OF SUBJECTS			
1.2	The two groups being studied are selected from source populations that are comparable in all respects other than the factor under investigation.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.3	The study indicates how many of the people asked to take part did so, in each of the groups being studied.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.4	The likelihood that some eligible subjects might have the outcome at the time of enrolment is assessed and taken into account in the analysis.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.5	What percentage of individuals or clusters recruited into each arm of the study dropped out before the study was completed?		
1.6	Comparison is made between full participants and those lost to follow-up, by exposure status.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
ASSESSMENT			
1.7	The outcomes are clearly defined.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.8	The assessment of outcome is made blind to exposure status.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.9	Where blinding was not possible, there is some recognition that knowledge of exposure status could have influenced the assessment of outcome.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.10	The measure of assessment of exposure is reliable.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable

1.11	Evidence from other sources is used to demonstrate that the method of outcome assessment is valid and reliable.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.12	Exposure level or prognostic factor is assessed more than once.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
CONFOUNDING			
1.13	The main potential confounders are identified and taken into account in the design and analysis.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
STATISTICAL ANALYSIS			
1.14	Have confidence intervals been provided?		
SECTION 2: OVERALL ASSESSMENT OF THE STUDY			
2.1	How well was the study done to minimise the risk of bias or confounding, and to establish a causal relationship between exposure and effect? *Code ++, + or –*		

*A cohort study can be defined as a retrospective or prospective follow-up study. Groups of individuals are defined on the basis of the presence or absence of exposure to a suspected risk factor or intervention. This checklist is not appropriate for assessing uncontrolled studies (for example, a case series where there is no comparison [control] group of patients).

Notes on the use of the methodology checklist: cohort studies

The studies covered by this checklist are designed to answer questions of the type 'What are the effects of this exposure?' It relates to studies that compare a group of people with a particular exposure with another group who either have not had the exposure or have a different level of exposure. Cohort studies may be prospective (where the exposure is defined and subjects selected before outcomes occur) or retrospective (where exposure is assessed after the outcome is known, usually by the examination of medical records). Retrospective studies are generally regarded as a weaker design, and should not receive a 2++ rating.

Section 1 identifies the study and asks a series of questions aimed at establishing the internal validity of the study under review —that is, making sure that it has been carried out carefully, and that the outcomes are likely to be attributable to the intervention being investigated. Each question covers an

aspect of methodology that has been shown to make a significant difference to the conclusions of a study.

Because of the potential complexity and subtleties of the design of this type of study, there are comparatively few criteria that automatically rule out use of a study as evidence. It is more a matter of increasing confidence in the likelihood of a causal relationship existing between exposure and outcome by identifying how many aspects of good study design are present and how well they have been tackled. A study that fails to address or report on more than one or two of the questions considered below should almost certainly be rejected.

For each question in this section, one of the following should be used to indicate how well it has been addressed in the review:

- well covered
- adequately addressed
- poorly addressed
- not addressed (that is, not mentioned or indicates that this aspect of study design was ignored)
- not reported (that is, mentioned but insufficient detail to allow assessment to be made)
- not applicable.

1.1 The study addresses an appropriate and clearly focused question

Unless a clear and well-defined question is specified, it will be difficult to assess how well the study has met its objectives or how relevant it is to the question to be answered on the basis of its conclusions.

1.2 The two groups being studied are selected from source populations that are comparable in all respects other than the factor under investigation

Study participants may be selected from the target population (all individuals to which the results of the study could be applied), the source population (a defined subset of the target population from which participants are selected) or from a pool of eligible subjects (a clearly defined and counted group selected from the source population). It is important that the two groups selected for comparison are as similar as possible in all characteristics except for their exposure status or the presence of specific prognostic factors or prognostic markers relevant to the study in question. If the study does not include clear definitions of the source populations and eligibility criteria for participants, it should be rejected.

1.3 The study indicates how many of the people asked to take part did so in each of the groups being studied

This question relates to what is known as the participation rate, defined as the number of study participants divided by the number of eligible subjects. This should be calculated separately for each branch of the study. A large difference in participation rate between the two arms of the study indicates that a significant degree of selection bias may be present, and the study results should be treated with considerable caution.

1.4 The likelihood that some eligible subjects might have the outcome at the time of enrolment is assessed and taken into account in the analysis

If some of the eligible subjects, particularly those in the unexposed group, already have the outcome at the start of the trial, the final result will be biased. A well-conducted study will attempt to estimate the likelihood of this occurring and take it into account in the analysis through the use of sensitivity studies or other methods.

1.5 What percentage of individuals or clusters recruited into each arm of the study dropped out before the study was completed?

The number of patients that drop out of a study should give concern if the number is very high. Conventionally, a 20% drop-out rate is regarded as acceptable, but in observational studies conducted over a lengthy period of time a higher drop-out rate is to be expected. A decision on whether to downgrade or reject a study because of a high drop-out rate is a matter of judgement based on the reasons why people drop out and whether drop-out rates are comparable in the exposed and unexposed groups. Reporting of efforts to follow up participants that drop out may be regarded as an indicator of a well-conducted study.

1.6 Comparison is made between full participants and those lost to follow-up by exposure status

For valid study results, it is essential that the study participants are truly representative of the source population. It is always possible that participants who drop out of the study will differ in some significant way from those who remain part of the study throughout. A well-conducted study will attempt to identify any such differences between full and partial participants in both the exposed and unexposed groups. Any indication that differences exist should lead to the study results being treated with caution.

1.7 The outcomes are clearly defined

Once enrolled in the study, participants should be followed until specified end points or outcomes are reached. In a study of the effect of exercise on the death rates from heart disease in middle-aged men, for example, participants might be followed up until death, reaching a predefined age or until completion of the study. If outcomes and the criteria used for measuring them are not clearly defined, the study should be rejected.

1.8 The assessment of outcome is made blind to exposure status

If the assessor is blinded to which participants received the exposure, and which did not, the prospects of unbiased results are significantly increased. Studies in which this is done should be rated more highly than those where it is not done or not done adequately.

1.9 Where blinding was not possible, there is some recognition that knowledge of exposure status could have influenced the assessment of outcome

Blinding is not possible in many cohort studies. In order to assess the extent of any bias that may be present, it may be helpful to compare process measures used on the participant groups — for example, frequency of observations, who carried out the observations and the degree of detail and completeness of observations. If these process measures are comparable between the groups, the results may be regarded with more confidence.

1.10 The measure of assessment of exposure is reliable

A well-conducted study should indicate how the degree of exposure or presence of prognostic factors or markers was assessed. Whatever measures are used must be sufficient to establish clearly that participants have or have not received the exposure under investigation and the extent of such exposure, or that they do or do not possess a particular prognostic marker or factor. Clearly described, reliable measures should increase the confidence in the quality of the study.

1.11 Evidence from other sources is used to demonstrate that the method of outcome assessment is valid and reliable

The inclusion of evidence from other sources or previous studies that demonstrate the validity and reliability of the assessment methods used should further increase confidence in study quality.

1.12 Exposure level or prognostic factor is assessed more than once

Confidence in data quality should be increased if exposure level or the presence of prognostic factors is measured more than once. Independent assessment by more than one investigator is preferable.

1.13 The main potential confounders are identified and taken into account in the design and analysis

Confounding is the distortion of a link between exposure and outcome by another factor that is associated with both exposure and outcome. The possible presence of confounding factors is one of the principal reasons why observational studies are not more highly rated as a source of evidence. The report of the study should indicate which potential confounders have been considered and how they have been assessed or allowed for in the analysis. Clinical judgement should be applied to consider whether all likely confounders have been considered. If the measures used to address confounding are considered inadequate, the study should be downgraded or

rejected, depending on how serious the risk of confounding is considered to be. A study that does not address the possibility of confounding should be rejected.

1.14 Have confidence intervals been provided?

Confidence limits are the preferred method for indicating the precision of statistical results and can be used to differentiate between an inconclusive study and a study that shows no effect. Studies that report a single value with no assessment of precision should be treated with caution.

Section 2 relates to the overall assessment of the paper. It starts by rating the methodological quality of the study, based on the responses in Section 1 and using the following coding system:

++	All or most of the criteria have been fulfilled. Where they have not been fulfilled, the conclusions of the study or review are thought **very unlikely** to alter.
+	Some of the criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are thought **unlikely** to alter the conclusions.
–	Few or no criteria fulfilled. The conclusions of the study are thought **likely or very likely** to alter.

Appendix 10: Outcomes

A large number of outcomes are reported by intervention studies in people with borderline personality disorder no doubt due to the multi-symptom nature of the disorder, and the fact that the diagnosis does not include core symptoms as is the case for other mental disorders, such as depression. The problem is compounded by the large number of rating scales available to measure each outcome, including both clinician- and self-rated versions. The problem is further compounded by the relatively low number of studies undertaken in people with borderline personality disorder.

To tackle the issue of outcomes, the GDG began by drawing up a list of outcomes reported in RCTs reviewed by two existing systematic reviews, one of pharmacological treatments (Binks et al, 2006) and the other of psychological treatments (Binks et al, 2006A). Each outcome was then allocated to a category (for example, symptoms – depression, harm, general psychiatric morbidity). The outcomes reported within each category were then examined to assess whether they could be combined in meta-analysis. This was done by examining the scales (where relevant publications were available and/or using handbook published by the APA(APA, 2000)) to assess how many items they had in common. This was undertaken initially for those outcomes reported in the pharmacological studies. A special advisor with expertise in undertaking trials in people with borderline personality disorder was appointed to advise with this process (see Appendix 3).

The following general rules were adopted when deciding whether to include or exclude a rating scale. The scale had to have been published in a peer-reviewed journal (including validation data), and it had to report an outcome relevant to the guideline. When deciding whether to combine scales in meta-analysis, the following additional rules were adopted: clinician-rated scales were not combined with self-report scales, and the items in the scale had to fairly closely match another scale to be combined.

As studies were reviewed by the GDG which were not included in the existing systematic reviews used to draw up the initial outcome lists, additional outcomes were added to the master list. These were assessed in the same way. Note that dichotomous outcomes based on simple events counts, such as number of episodes of self-harm, were not part of this exercise.

The list of outcomes is in Table 120 together with some notes. Table 121 shows scales arranged by category (domain) with notes on whether they were considered combinable in meta-analysis.

Table 120 *Outcomes reported by psychological and pharmacological RCTs in Cochrane Binks reviews*

Scale	*(S)elf-report*	*Notes*	*Category*	*Comment*
ADI - Atypical Depression Inventory		Quitkin	Symptoms - Depression	Not extracting – not interested in atypical depression
AIMS - Abnormal Involuntary Movement Scale		Well known scale for measuring effects of psychotropic medication, usually antipsychotics	Harm	Usable
AOS - Acting Out Scale		Drawn from the literature on BDP classifies episodes of behavioural dyscontrol into no acting out plus 3 categories: mild acting-out (exaggerated demanding, angry outburst, suicidal threats), moderate acting out (throwing objects, physical violence without the intention of causing injury, head or arms banging), and severe acting-out (suicidal acts, physical violence with the intention to cause injury)	Behaviours - Acting Out	Not extracted as does not appear to be a published scale
AQ - Aggression Questionnaire	s	Comprises physical aggression, verbal aggression, anger and hostility – adaptation of the BDHI into 29-item Likert scale by Buss & Durkee 1992 in an attempt to improve the psychometric properties of the BDHI. (Higher is worse)	Symptoms - Aggression	Well validated scale. Cannot combine with SCL-90 hostility as only 3/6 items on the SCL-90 map onto AQ items.
BAI - Beck Anxiety Inventory	s	Good for monitoring change with treatment. Doesn't assess worry or focus on other DSM-IV symptoms of GAD, therefore not a specific measure for generalized anxiety; doesn't discriminate	Symptoms - Anxiety	Usable

		well among anxiety disorders or distinguish anxiety disorders from anxious depression [APA]		
BARNES-Barnes Akathisia Scale		Well known scale for measuring effects of psychotropic medication, usually antipsychotics	Harm	Usable
BDHI - Buss Durkee Hostility Inventory		Buss & Durkee 1957 – 'hostility' used as general term for aggression including emotional, attitudinal and behavioural aspects of aggression – current studies use more specific definitions of hostility and aggression. (higher is worse)	Symptoms - Hostility	Original hostility scale – reformed to form the Aggression Questionnaire (see above). Usable
BDI - Beck Depression Inventory	s	Well-established scale Norms: 12.56 (9.93) (college students) Cut-offs: 0-9 minimal; 10-16 mild; 17-29 moderate; 30-63 severe	Symptoms - depression	Correlates with SCL-90-R depression subscale (r=0.22 for outpatients; 0.73 to 0.8 for other patient groups) Usable
BHS - Beck Hopelessness Scale		Well-established scale	Symptoms - Hopelessnes s	Usable
BIS - Barratt Impulsivenes s Scale	s	Different versions available - BIS-II – intended for ages >=13. Correlates with Buss-Durkee Hostility Inventory and with Anger Out scale of the State-Trait Anger Expression Inventory (STAXI). Best suited for use in research with other measures; not useful in individual clinical assessment Norms: 64.94 (10.19) (college students); general psychiatric patients 69.74 (11.54) Higher is worse	Symptoms - Impulsivene ss	Trait-like measure, possibly measuring obsessionality Usable

BPDSI - Borderline Personality Disorder Severity Index [semi-structured interview]		Assesses frequency of borderline symptoms in previous 3 months – 9 sections to correspond to DSM-IV criteria – only 2 used in Van den Bosch 2002 & Rinne2002 (impulsiveness scales) Arntz et al 2003.- not in APA handbook – 11 questions (buying things impulsively, unsafe sex, sex with unkown persons, gambling, excessive use of alcohol, ditto soft drugs, use of hard drugs, binge eating, shoplifting, reckless driving, other potentially dangerous impulsive behaviours)	Symptoms - Impulsiveness	Not extracting - turns each DSM-IV criteria into a Likert scale therefore not independent of diagnosis and somewhat tautological.
BPRS - Brief Psychiatric Rating Scale		Overall & Gorham, 1988. Designed to assess change in severity of psychopathology, particularly symptom change in people with psychotic illness, based on existing scales MSRPP and IMPS	Severe psychopathology	Not relevant to BPD symptoms, may be relevant to axis I comorbidity
BSI – Borderline Syndrome Index	s	Borderline psychopathologic symptoms	General psychiatric morbidity	Not used – only reported by excluded study (Serban1984)
BSI - Brief Symptom Inventory	s	Derogatis 1993 – derived from SCL-90 to reflect psychological symptom patterns , 53-item Likert scale, 9 symptom dimensions	General psychiatric morbidity	Usable
BSSI or BSI - Beck Scale for Suicide Ideation	s	Scored 0-38; 21 items on 3-point Likert scale Correlates with Beck Hopelessness Scale, BDI and HRSD	Behaviours - Suicidal ideation	Usable
CGI - Clinical Global Impression Scale		Weak measure as based on subjective opinion	Global functioning	Not extracted
CGI-I - Clinical		Rated 1 to 7 – 1 = very much improved	Global functioning	Unpublished scale – not

Global Impressions - Improvement Scale		Based on the 9 DSM-IV BPD criteria and on the CGI – think it was developed specifically for one study (Bogenschuzt2004) and isn't published.		usable
DES - Dissociative Experiences Scale	s	Berstien & Putnam 1986) (and version II 1993) APA Handbook describes it has quick, reliable and valid screening measure for the detection of high levels of dissociation – don't generate DSM-IV diagnosis; not validated in under 16s although adolescent version (A-DES) available.	Symptoms - dissociation	Not extracted – not relevant to core BPD symptomatoloty
EuroQOL		The EuroQol Group (1990). EuroQol: A new facility for the measurement of health related quality of life. *Health Policy, 16,* 199-208. 5 domains (mobility; self-care; usual activity; pain; anxiety/depression) (3 response options per domain), plus a visual analogue scale (VAS (thermomenter score) excluded) (Higher is better)	QOL	Usable
EuropASI - Addiction Severity Index - European Version		McLellan et al, 1980. 7 areas medical status, employment and support, drug sue, alcohol use, legal status, family or social status, psychiatric status based on previous 30 days – useful as tool to guide initial assessment and treatment planning for patients seeking inpatient or outpatient treatment for substance abuse. Teen version available. Not suitable for people with	Behaviours - Substance use	Not extracted

		schizophrenia as makes assumptions about self-sufficiency.		
GAF - Global Assessment of Functioning		Established scale	Global functioning	Usable
GAS - Global Adjustment Scale		See SHI	Social functioning	Usable
GAS - Global Assessment Scale		Endicott et al, 1974 Evaluates overall functioning on a scale from 1 to 100. Higher is better Norms: over 70 Outpatients: 31 to 70; inpatients 1 to 40	Global functioning	Usable
GSA - Global Social Adjustment		See SHI	Social functioning	
GSI - Global Severity Index	s	Index from SCL-90 (also BSI) – essentially a mean of all items Calculated as follows: sums of 9 symptom dimensions and additional items added together and divided by number of responses (53 if all answered) Given that most of the subscales of the SCL-90 are not relevant to BPD symptomatology, GSI and total SCL-90 may not be useful measures. Norms (raw scores/Tscores): outpatients 1.32/50; adult nonpatients 0.3/53; inpatients 1.19/53; adolescent nonpatients 0.83/52	Global functioning (mental distress)	Usable
HADS – Hospital	S	Designed to screen for depression/anxiety in	Symptoms – Depression/	Usable

Anxiety and Depression Scale		medically ill patients – 14 items rated on 4-point Likert-type scales	anxiety	
HAM-D - Hamilton Depression Scale (HRSD)		Clinician-rated depression scale; well established	Symptoms - Depression	Usable: combine with MADRS
HARS - Hamilton Anxiety Rating Scale		Bit old fashioned? Hamilton 1959. Initially designed as indicator of severity of anxiety neurosis which is no longer psychiatric term. Does not focus on symptoms of GAD (DSM-IV definition) – eg worry which is key feature of GAD less emphasized than phobic symptoms, and symptoms of autonomic arousal which are no longer part of definition of GAD feature prominently 21-item scale	Symptoms - Anxiety	Usable
HDQ - Hysteroid Dysphoria Questionnaire		Unpublished scale		Not extractable - not published scale
HRQ - Helping Relationship Questionnaire			Relevant?	Not relevant
IMPS - Inpatient Multidimensional Rating Scale		Used in Soloff1993 to measure symptom severity (schizoptypal functioning) at baseline; used as basis for BPRS – not in APA handbook	Symptoms - Schizotypal, psychoticism	Not extracting – schizotypal functioning not relevant to BPD
Inventory of Interpersonal Problems - circumflex version	s	Horowitz et al 1988, Alden et al, 1990; assess nature of dysfunctional interpersonal problems – 8 areas: domineering, vindictive, cold, socially aviodant, nonassertive, exploitable, overly nurturant, intrusive – higher is worse	Social functioning	Not used
LPC - Lifetime		Frequency and subsequent medical treatment of self-	Behaviours - Parasuicide	Not usable

Parasuicide Count.		mutilating behaviours (Comtois & Linehan, 1999) Scale doesn't give a count of number of episodes/acts – more of a composite measure of overall 'parasuicidality' in period under review. Relies on client recall.		
MADRS - Montgomery and Asberg Depression Rating Scale		Clinician-rated depression scale; well established	Symptoms - Depression	Usable
OAS-M - Overt Aggression Scale - Modified		Coccaro et al, 1991; Yudofsky 1986. Original scale was an observer-rated scale for inpatients. Then modified version scale for outpatients. Added items from SADS for irritability and suicidality. Validation study done on male psychiatric patients with mood disorders, personality disorder or both. Includes 3 domains – aggression, irritability, suicidality 25-item, semi-structured interview with 9 subscales. Suicidality items make it difficult to call this an aggression scale. Aggression subscale (used in one study) is original scale. Nature of items better suited to environment in which rater can observe behaviour rather than assess them in clinical interview. – higher is worse	Symptoms - Aggression	Usable
OAS-R and MOAS - McLean Hospital Overt Aggression Symptom	s	Modified version of the Yudofsky scale. Turned into a self-rated scale and added suicidality items (Teicher1989)	Symptoms - Aggression	Not extractable - not published scale

Checklist				
PAI - Psychiatric Assessment Interview		Not in APA handbook	General psychiatric morbidity	Not extractable from only study reported in; also study excluded from review
PANSS - Positive and Negative Syndrome Scale		Kay et al 1987 measures severity of psychopathology in people with psychotic disorders. Items include those from BPRS plus some from Psychopathology Rating Schedule (Singh & Kay 1987).	General psychiatric morbidity	Not relevant to BPD symptomatoloty
PDQ-DSM-IV - Personality Diagnostic Questionnaire, DSM-IV version	s	APA handbook assesses PDQ-4 – assume similar to this - best used as screening instrument as high false-positive rate and best used with Clinical Significance Scale which is brief interview	Diagnosis	Not extracated
PDRS - Personality Disorder Rating Scale		scale designed specifically for study (Salzman1995	General psychiatric functioning	Not published scale
PHI - Parasuicide History Interview [now the Suicide Attempt & Self-Injury Interview in press in Psychological Assessment]		Semi-structured interview (Linehan1989, 1990, 1994) assesses nature and frequency of parasuicidal behaviour since last assessment – not in APA handbook	Behaviours - Parasuicide	Usable
POMS - Profile of Mood States	s	McNair et al 1971 – (not in APA) evaluates multiple emotional and behavioural states (eg vitality and anxiety) – higher is worse	General psychiatric morbidity	Only used in a study which has been excluded
RLISC - The Reasons for Living		Only used in one study (Linehan1991) and data not reported	Suicidal ideation	Not extracted

Inventory, Survival and Coping Scale.				
SAS-I - Social Adjustment Scale - Interview		Adapted to form SHI Weissman & Bothwell 1976 Covers functioning at work, social and leisure activities, relationships with extended family, marital role as a spouse, role as a parent, role as a member of the family unit Covers previous 2 months	Social functioning	Usable
SAS-SR - Social Adjustment Scale-Self-Report	s	Modified version used in Bateman1999 (Cooper et al, 1982), also modified in Linehan1991 Self-report version of SAS-I - original covers 2 weeks (unsure about modified version) – scored yes/no rather than on a scale as for interview version	Social functioning	Usable
SAS-SR LIFE - Social Adjustment Scale - Longitudinal Interview Follow-up	s	Modified for Linehan1991 (Keller et al 1987)	Social functioning	Usable
SCID-II BPD dimensional score		Derived by summing 9 SCID-II items scored 1 (absent), 2 (subthreshold), 3 (present). Scores range from 9 to 27. Designed specifically for study (Chanen unpub)	Diagnosis	Not extracted
SCL-90 - Hopkins Symptom Checklist-90	s	9 subscales (somatization, obsessive-compulsiveness, interpersonal relationships, depression, general anxiety, anger and hostility, phobic anxiety, paranoid ideation, psychoticism). Includes Global Severity Index which is total means –	General psychiatric morbidity	Usable - including some individual scales other than: phobic anxiety; obsessive-compulsive; somatization; paranoid

		indicator of respondent's distress level, combining info about numbers of symptoms and intensity of symptoms; PSDI – pure intensity measure corrected for number of symptoms, PST relevant number of symptoms No information found on correlation of hostility subscale with AQ but items don't match so not combi		thinking; psychotic – not relevant to BPD
SCL90-R - Symptom Check List 90 - Revised	s	Derogatis 1994 – intended as quick screening instrument, as measure of the outcome/status of psychopathology – 9 constructs: somatization, obsessive-compulsiveness, interpersonal relationships, depression, general anxiety, anger and hostility, phobic anxiety, paranoid ideation, psychoticism. Contains only minor reviews of SCL-90. Scores given either as raw scores or t-values	General psychiatric morbidity	As for SCL-90
SFQ Social Functioning Questionnaire		Tyrer, P., Nur, U., Crawford, M. *et al.* (2005) Social Functioning Questionnaire: A rapid and robust measure of perceived functioning. *International Journal of Social Psychiatry, 51,* 265-275 Higher is worse	Social functioning	Usable
SHI - Social History Interview		Adaptation of the psychosocial functioning portion of the Social Adjustment scale and the Longitudinal Interview Follow-Up Evaluation base schedule allowed for determination of Global Social Adjustment and Global Adjustment Scale scores	Social functioning	Usable

		(Linehan 1999)		
Simpson-Angus scale		Well established scale reporting side effects of psychotropic medication particularly antipsychotics	Harm	Usable
SNOOP - Systematic Nurses' Observation of Psychopathology		Not in APA handbook	General psychiatric morbidity	Only reported in one study and data not extractable (Leone1982)
Social and Occupational Functioning Assessment Scale		Goldman, H., Skodol, A., Lave, T. Revising Axis V for DSM-IV: a review of measures of social functioning. Am J Psychiatry, 1992: 149: 1148-56 [right ref? – given in Chanen]	Global functioning	Usable
SSHI - Suicide and Self Harm Inventory		[think only used by 1 study Linehan 1991 and data not reported] Also Bateman1999, but may be different scale. Not in APA handbook – not validated or published in peer-review journal	Behaviours - Suicidal ideation	Usable
SSI - Scale for Suicide Ideators		[adapted for study from other sources – Soloff1989)	Behaviours - Suicidal ideators	Not published scale
SSI - Schizotypal Symptom Inventory		Not in APA handbook	Symptoms - Schizotypal symptoms	Not being used – reported in studies with patients with schizotypal PD not BPD
STAI - Spielberger State Trait Anxiety Inventory	s	Not in APA handbook – higher is worse	Symptoms - Anxiety	Trait items seem to measure depression as well as anxiety (Bieling et al, Behaviour Research & Therapy, 36 (1998) 777-788. Therefore weak measure of

				anxiety.
STAS-T - State-Trait Anger Scale		Not in APA handbook Spielberger, C.D., Jacobs, G.A., Russell, S., Crane, R.S. Assessment of anger: the State-Trait Anger Scale, in Advances in Personality Assessment. Edited by Butcher, J.N., Spielberger, C.D., Hillsdale, N.J. Lawrence Erlbaum Associates, 1983.	Symptoms - Anger	Predecessor of STAXI
STAXI - Speilberger Anger Expression Scale / State Trait Anger Expression Inventory	s	Assesses components of anger – state-trait dimension distinguishes general propensity to experience angry feelings (trait) and level of anger experienced in present moment (state). 44 items making up 8 subscales – no total score, just individual scales – S-anger/T-anger scored 10 to 40 AX/In, AX/Out, AX/CON scored 8 to 32 AX/EX calc'd by formula from 0 to 72 Cut-off for normal = 40 T-anger correlates with Buss-Durkee BDHI and MMPI	Symptoms - Anger	Stait and trait subscales correlate. Stait subscale more useful because of short-term nature of trials
STIC - Self Report Test of Impulse Control	s	Lazaro et al 1969 – described as 'trait measure of impulse control' in Soloff1993 which used it (along with 2 other measures of impulsivity). Well validated scale, correlates negatively with the Barratt Impulsiveness Inventory. Higher is better	Symptoms - Impulsivity	Reported by only one study which also reports the Barratt scale so not extracted.
TBR - Target Behaviour Ratings		Unpublished scale; scored 0 to 8 for each of target behaviours – anger, impulsive behaviour,	Symptoms/ behaviours – as reported	Not extractable - not published scale

		emotional instability, frequency of parasuicide (Turner 2000)		
THI - Treatment History Interview		Not in APA handbook. Linehan & Heard 1987	Social functioning	Not extracted
WSIAP - Ward Scale of Impulse Action Patterns		[adapted for study from other sources – Soloff1989)	Global functioning? Impulsivity	Not a published scale
WHOQOL		The WHOQOL group (1998) Higher scores indicate better QOL	QOL	Usable
Youth/Young Adult Self-Report		Achenbach, T.M. Manual for the Youth Self-Report and 1991 profiles. Burlington, VT, University of Vermont, Department of Psychiatry. 1991 Achenbach, T.M. Manual for the Young Adult Self-Report and Young Adult Behavior Checklist. Burlington, VT, University of Vermont, Department of Psychiatry. 1997	Used for Internalising and externalizing psychopathology	Not relevant and reported in only one study (Chanen unpub)

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Table 121 Rating scales by domain with notes on possibility of combining scales in meta-analysis

Domain	Scales	Notes
Acting out	Acting Out Scale	Not in APA handbook – single scale
Aggression	Aggression Questionnaire (s) Overt Aggression Scale – Modified McLean Hospital Overt Aggression Symptom Checklist (s)	Scales are not suitable for combining as there is little overlap between them
Anger	Spielberger Anger Expression Scale/State Trait Anger Expression Inventory – STAXI (S) POMS anger subscale (s)	Combine STAXI-trait anger with SCL-90 anger subscale? Look very similar.
Hostility	State-Trait Anger Scale Spielberger Anger Expression Scale/State Trait Anger Expression Inventory – STAXI (S) Buss Durkee Hostility Inventory SCL-90 hostility scale (S) POMS anger subscale (s)	Combine STAXI-trait anger with SCL-90 anger subscale? Look very similar.
Anxiety	Beck Anxiety Inventory (s) SCL-90 anxiety subscale (s) Hamilton Anxiety Rating Scale Spielberger State Trait Anxiety Inventory	Have no information about the Spielberger scale; Beck Anxiety combinable with SCL-90 (both self-report)? Beck and Hamilton seem to measure different things.
Depression	Atypical Depression Inventory Beck Depression Inventory (s) Hamilton Rating Scale for Depression Montgomery & Asberg Depression Rating Scale POMS depression subscale (s) SCL-90 depression subscale (s)	Not interested in atypical depression Beck is self-report therefore don't combine with the others, but combine with POMS and SCL-90? (POMS not in book) – Some overlap between Beck and SCL Happy to combine HRSD and MADRS.
Dissociation	Dissociative Experiences Scale	Single measure

General functioning	GAF GAS CGI	Usually consider CGI a week outcome so don't extract – combine the other 2?
General psychiatric morbidity	Brief Psychiatric Rating Scale Brief Symptom Inventory Borderline Syndrome Index Psychiatric Assessment Interview Positive & Negative Syndrome Scale Personality Disorder Rating Scale Profile of Mood States Hopkins Symptom Checklist-90 (SCL-90) Inpatient Multidimensional Psychiatric Scale Systematic Nurses' Observation of Psychopathology	Several seem to be aimed at measuring psychotic symptoms. Several derivations of others (BSI, SCL-90, IMPS) Some seem to be made up for the study. Combine: BPRS and PANSS BSI, SCL-90, IMPS
Impulsiveness	Barratt Impulsiveness Scale (s) Self-Report Test of Impulse Control Borderline Personality Disorder Severity Index (impulsiveness subscale) Ward Scale of Impulse Action Patterns	Only BIS is in the APA Handbook so hard to judge these. Ward Scale was adapted for the study (Soloff1983) so can't use.
Service Use	Treatment History Interview	Not in APA handbook – single scale
Social functioning	Social History Interview (results in Global Social Adjustment based on Social Adjustment Scale) Social Adjustment Scale – Longitudinal Interview Follow-up [provides GAS scores] Social Adjustment Scale – Interview Inventory of Interpersonal Problems	Used in modified forms in studies Not combinable mix of self-rated and clinician-rated
Substance use	Addiction Severity Index –	

	European Version	
Suicidal ideation	Beck Scale for Suicidal Ideation Scale for Suicidal Ideators Reasons for Living Inventory, Survival and Coping Scale	Only Beck Scale in APA. SSI was adapted for a particular study (Soloff1983) and RLISCS only used by 1 study Linehan 1991 and data not reported
Suicide/self-harm	Lifetime Parasuicide Count Parasuicide History Interview Borderline Personality Disorder Severity Index (parasuicide subscale) Suicide and Self Harm Inventory	None in APA handbook – if just reporting simple frequencies, could just add together? No – beware different definitions of parasuicide/self-harm

Proposed taxonomy for outcomes – by importance [consider ranking them]:

Outcome category	Example outcomes	Rating scales
High importance		
Social functioning	Social adjustment, interpersonal functioning, vocational status	Social History Interview (results in Global Social Adjustment based on Social Adjustment Scale) Social Adjustment Scale – Longitudinal Interview Follow-up Social Adjustment Scale – Interview Inventory of Interpersonal Problems
'Mental distress'		
User-experience	Acceptability (leaving treatment early), quality of life, experience of care	
Medium importance		
Service use	Inpatient admission, length of inpatient stay, number of A&E attendances	Treatment History Interview
Global state [vague measure, but useful to triangulate the others]	Overall functioning	Clinical Global Impression Scale Clinical Global Impressions - Improvement Scale Global Assessment of Functioning Global Assessment Scale
Behaviours	Self-harm, para-suicide, substance use (?separate), acting out [move to symptoms?]	*Acting out* Acting Out Scale *Parasuicide, suicide and self-harm* Lifetime Parasuicide Count Parasuicide History Interview Borderline Personality Disorder Severity Index (parasuicide subscale) Suicide and Self Harm Inventory *Substance use* Addiction Severity Index – European Version
Harm	Side effects, side effect symptoms (eg EPS), death (Completed suicide, RTAs, accidental self-poisoning)	Abnormal Involuntary Movement Scale (AIMS) Barnes Akathisia Scale (BARNES) Simpson-Angus scale
Symptoms (or	Depression, anxiety,	*Depression (core symptom)*

'mental state'?) (sub-divide for target complaints (cognitive-perceptual/impulsive-behavioural/affective), comorbid disorders?)	irritability, suicidal ideation, dissociation, anger, general psychiatric morbidity	Atypical Depression Inventory Beck Depression Inventory [self-report] Hamilton Rating Scale for Depression Montgomery & Asberg Depression Rating Scale *Impulsiveness (core symptom)* Barratt Impulsiveness Scale Self-Report Test of Impulse Control Borderline Personality Disorder Severity Index (impulsiveness subscale) Ward Scale of Impulse Action Patterns *Suicidal ideation* Beck Scale for Suicidal Ideation Scale for Suicidal Ideators Reasons for Living Inventory, Survival and Coping Scale *Hopelessness* Beck Hopelessness Scale *Anxiety* Beck Anxiety Inventory Hamilton Anxiety Rating Scale Spielberger State Trait Anxiety Inventory *Dissociation* Dissociative Experiences Scale *Anger and Hostility* State-Trait Anger Scale Spielberger Anger Expression Scale/State Trait Anger Expression Inventory Buss Durkee Hostility Inventory *Aggression* Aggression Questionnaire [self-report] Overt Aggression Scale – Modified McLean Hospital Overt Aggression Symptom Checklist *Schizotypal features* Schizotypal Symptom Inventory *General psychiatric morbidity* Brief Psychiatric Rating Scale Brief Symptom Inventory Borderline Syndrome Index Psychiatric Assessment Interview Positive & Negative Syndrome Scale Personality Disorder Rating Scale Profile of Mood States Hopkins Symptom Checklist-90 (SCL-90) Inpatient Multidimensional Psychiatric Scale

		Systematic Nurses' Observation of Psychopathology
Low importance		
Overall diagnosis	Meeting (or not meeting) diagnosis based on DSM-IV or ICD-10 or similar	Diagnostic Interview for Borderlines [but doesn't provide diagnosis?] SCID-II (DSM-III-R or DSM-IV) SCID-I (DSM-III-R or DSM-IV) International Personality Disorders Examination

Appendix 11: Pharmacology peer reviewer consultation table

No	Peer Reviewer	No	Section	Comments	Developer's Response
1	Paul Soloff	**1**	General, (also 6.13)	1. The available literature on BPD does not lend itself to meta-analysis. This is acknowledged, in part, in Section 6.13.1 i.e. ("This has prevented any meaningful meta-analysis or comparison between trials and treatments.") The limitations of both the database and the method of analysis should be stated in the Introduction, as the conclusions of the study are severely compromised by use of meta-analysis on such data. 2. By virtue of selection rules, the analysis excludes important studies from consideration, including well crafted RCT trials which had real impact on the field (e.g. Cowdry and Gardner, 1988.). 3. Given the acknowledged inadequacy of the database for meta-analysis, it would be helpful to supplement the meta-analysis with a review and discussion of excluded RCT studies,	We agree that the available literature does not lend itself to meta-analysis because of the relatively few studies and because of the lack of common outcomes. However, meta-analysis is the method of choice and we have used it as far as possible, calculating simple effect sizes where only single studies are available. We do not use lower levels of analysis to underpin recommendations relating to efficacy, but these can be used to develop research recommendations. The Cowdry et al (1988) is small and tells us very little as all the effects are short-term ones; furthermore it is compromised by carry-over effects. We feel it is of pioneering interest only. It also used a cross-over design which is difficult to use in meta-analysis. We use the SIGN grade to indicate the methodological quality of studies. These are in the study characteristics tables in the guideline appendix. We apologise if these were not sent to you with the chapter. See http://www.sign.ac.uk/ for further details of the

No	Peer Reviewer	No	Section	Comments	Developer's Response
				relevant open-label studies, and studies of dimensional constructs found in BPD (e.g. Coccaro and Kavousi (1997) study of fluoxetine for impulsive-aggression.) The APA guideline project dealt with the heterogeneity of study methods by use of a grading system of confidence in method (e.g. A = RCT, B = open label, etc) This could be used for studies in a supplement or appendix to the main analysis.	SIGN methodology. Regarding dimensional constructs – this is a very good point. However, we chose not to do this because of the dangers of producing apparent coherence where this may not exist. Where there is evidence of a diagnosable comorbidity – eg depression – we recommend that this should be treated as a priority. The Corraro & Kavousi (1997) study is more relevant to anti-social personality disorder (for which we are also developing a guideline).
2	Paul Soloff	**2**	6.1 Introduction	"These data are not surprising….immediate action is expected." This is an editorial opinion for which there is no empirical support.	Thank you – we have amended this sentence.
3	Paul Soloff	**3**	6.1.2 placebo effect	"Drug trials with people with borderline personality disorder are particularly prone to the placebo effect." Another editorial opinion with no empirical support. Compared to other psychiatric disorders? Placebo effect is prominent in most drug trials with psychiatric subjects, not limited to BPD.	Thank you – we have amended this sentence.
4	Paul Soloff	**4**	6.1.3.	" outcomes…do not directly measure symptoms making up the	We agree and have amended the sentence.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				diagnosis…aggression and depression." Please clarify sentence and intent. Aggression is a target symptom because it is a dimensional trait in BPD. Depression is measured because it is part of affective dysregulation, a key dimension in BPD. Since you do discuss symptom-specific treatments later in the text, it would be useful to acknowledge that a symptom-specific approach to drug trials for the BPD syndrome will involve outcome measurements defined for the symptom, not the BPD syndrome as a whole.	
5	Paul Soloff	**5**	6.2.1 para.4.	"Impulsive aggression….mediated by lithium". ? mediated. Wrong word.	Thank you – we have amended the text.
6	Paul Soloff	**6**	6.2.2 carbamazepine comment	"insufficient evidence…" Cowdry 1988 found CBZ useful against behavioural dyscontrol in an RCT 4 drug cross-over study. (Should be noted though excluded by selection criteria.)	We disagree and consider this trial unhelpful. Also, we do not discuss excluded studies in the discussion of the evidence.
7	Paul Soloff	**7**	6.3.3	"A sensitivity analysis was undertaken removing one study." Define "sensitivity analysis" and why Soloff 1993 was excluded.	The methodology is explained in a separate methods chapter (which we did not send you – apologies for this). The effect size calculated for the outcome in question for the Soloff1993 trial was clearly an outlier compared with other trials

No	Peer Reviewer	No	Section	Comments	Developer's Response
					in the analysis and therefore was removed.
8	Paul Soloff	**8**	6.3.3 comment	.."there is no evidence for the use of low dose haloperidol as a mood stabilizer…therefore insufficient evidence ..to recommend its use in the management of borderline personality disorder..,." Haloperidol is not a mood stabilizer, nor intended as a mood stabilizer in any pharm study. Its target sxs are cognitive-perceptual, anger, hostility, impulsivity. This statement, and conclusion are grossly incorrect.	Thank you – we have amended the sentence.
9	Paul Soloff	**9**	6.3.6 comment	(re aripiprazole) "there is no evidence for its use as a mood stabilizer…insufficient evidence. " Same critique as above. Statement and conclusion are grossly incorrect.	Thank you – we have removed the sentence.
10	Paul Soloff	**10**	6.4.4. comment on antidepressants	…"there is no evidence of efficacy of these drugs as mood stabilizers in people with borderline personality disorder" Why the emphasis on mood stabilizers? (see above). The target symptom for TCA, SSRI and MAOI trials is primarily depression.	Thank you – we have removed the sentence.
11	Paul Soloff	**11**	6.5.2 omega-3 fatty acids	"..there is no evidence for use as a mood stabilizer. "Why is this the major target	Thank you – we have removed the sentence.

No	Peer Reviewer	No	Section	Comments	Developer's Response
			comment	symptom for consideration of use in BPD? (see above). Because a drug is not a mood stabilizer, do you discount its use in BPD?	
12	Paul Soloff	**12**	6.7.3 aggression comment	…"no evidence for any drug of an effect of treatment on aggression." A discussion of Coccaro and Kavoussi , 1997, would be helpful here as they showed efficacy for fluoxetine in an RCT targeting impulsive-aggression in PD subjects (many, though not all BPD). We treat dimensions within the BPD syndrome.	Your point about dimensional constructs is a good one. However, we chose not to do this because of the dangers of producing apparent coherence where this may not exist. Where there is evidence of a diagnosable comorbidity – eg depression – we recommend that this should be treated as a priority. The Corraro & Kavousi (1997) study is more relevant to anti-social personality disorder (for which we are also developing a guideline).
13	Paul Soloff	**13**	6.11 Summary 6.12 recommendations	"There was evidence that pharmacological treatments can help reduce…anger, anxiety, depression symptoms, hostility and impulsivity." <u>This is the result supported by your meta-analysis</u>, yet you recommend (6.12) "Pharmacological treatments should not routinely be offered…" To the extent that this analysis purports to be evidence-based, you must acknowledge the positive findings of your own analysis in your recommendations!!	Thank you – we have amended the conclusion to reflect our findings and consequent recommendations more accurately. Although there is some evidence it is too weak to support recommendations in a national guideline.
14	Paul Soloff	**14**	Table 56 Drugs	Because of the limitations of the database and of your analytic method, the drugs	Thank you - we recommend the treatment of comorbidities but the data are not strong enough

No	Peer Reviewer	No	Section	Comments	Developer's Response
				identified as "showing some effects" are unlikely to be first-line choices for clinicians e.g. topiramate for anger and anxiety, AMI for depression, haloperidol for impulsivity.	to recommend the treatment of traits. We had some concerns about the topiramate and aripiprazole studies by study group led by Nickel because they were very positive compared with other studies. Since this research group had completed a large number of very positive studies across a wide range of disorders (including non psychiatric disorders) we therefore did not include these studies when drawing up our overall conclusions about the dataset.
15	Paul Soloff	**15**	6.14 Management of crises	"There is no evidence for the use of specific medication in the crisis management…" This sweeping generalization quickly loses meaning when we look at specific symptoms presented in crisis settings: e.g. anger, hostility, anxiety, impulsivity, all of which may respond to medication acutely administered, even in BPD. (e.g. low dose neuroleptic.) Perhaps this is spelled out in "NICE CG25" but should be stated here as well.	Thank you – we have substantially amended this paragraph to make our meaning clearer. We found no evidence that supports the use of any specific drug or drugs in the crisis management of people with borderline personality disorder.
16	Paul Soloff	**16**	General 6.12	Because of the severe limitations imposed by your choice of method, many useful clinical studies are not considered. Helpful treatments identified by the meta-analysis	Thank you, but we feel that the limitations are in the data (i.e., paucity of well conducted RCTs) rather than in our methods. The recommendations will reflect the lack of good evidence and acknowledge the poor evidence

No	Peer Reviewer	No	Section	Comments	Developer's Response
				are ignored in your recommendation. As currently constructed, the guideline can not be called evidence-based. It is my personal opinion that the limitations in method, and bias in interpretation result in a guideline which is not clinically meaningful.	base.
17	Roger Mulder	**1**	General	In general I think the report is very good. It systematically evaluates the limited data available, summarises the weak evidence or the lack of evidence and makes appropriate recommendations.	Thank you.
18	Roger Mulder	**2**	Opening paragraph	The opening paragraph is very appropriate in that it emphasises that patients with borderline personality disorder are receiving medications whether or not there is an evidence base for doing this. It could be further emphasised in the final section that the high rates of prescribing coupled with poor evidence base make it ethically imperative that large randomised control trials with agreed outcome measures are instituted as soon as possible.	Thank you – we will be making several research recommendations along the lines you suggest.
19	Roger Mulder	**3**	Page 3	On page 3 under the heading "diagnosis" there is a comment that some trials exclude	Thank you – we have amended the paragraph.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				participants with any comorbid axis I disorder. I wonder whether there needs to be a comment that some trials do not specify whether they exclude axis I disorders or not, making interpretation difficult. I also think it is reasonable to say that in the final sentence "this may reduce generalisability since most (rather than many) people with borderline personality disorder have also an axis I disorder".	
20	Roger Mulder	**4**	Page 5	On page 5 the databases searched were last updated in July 2007. There obviously has to be a final date but I wonder whether consideration should be given to a recent randomised control trial of ziprasidone since this is one of the largest that has been undertaken to this point. The reference is Carlos Pascual et al. Journal of Clinical Psychiatry, 2008; Jan30:el-e6.	Thank you – this is a good point. We update all the searches every 6 months and for the last time about 6 weeks before we hand in the draft guideline to NICE. We had not updated the chapter with the latest round of updates. We will look at the Pascual et al 2008 study.
21	Roger Mulder	**5**	Page 33	On page 33 the statement that there is insufficient evidence to base a recommendation for antidepressants in the treatment of borderline personality disorder is somewhat at odds with the Cochrane	Thank you. We are unable to find this in the Cochrane review. However, we found very few significant findings for antidepressants. The updated Cochrane review (of which we were given sight of a pre-publication copy) concluded that there was limited evidence base to justify

No	Peer Reviewer	No	Section	Comments	Developer's Response
				Review conclusion which states "antidepressants, in particular, may be helpful". It would be useful to include some comment to explain these differences or are we better to leave the evidence as it stands?	intervening with drugs in people with BPD. We have made it clearer in the chapter that we are talking about treating the disorder not depression.
22	Roger Mulder	**6**	Page 33	With regard to the effects of antidepressants on mood in patients with borderline personality disorder, would it be worthwhile to include literature on treatment of mood disorders in patients who have comorbid borderline personality disorder. These generally confirm the fact that effective treatment of mood symptoms in the context of borderline personality disorder is possible.	Thank you. This is very difficult to do systematically and we consider that we have used all relevant studies of people with a diagnosis of borderline personality disorder. Also, it is very easy for us to suggest that when drug effects are being shown that this is a consequence of treating a comorbid disorder, but of course we cannot dissect drug effects by diagnosis in this way.
23	Roger Mulder	**7**	Clinical summary	In the summary of clinical evidence review would it be worth putting some comment about the possibility that enrolment, assessment, and treatment in a randomised control trial regardless of which medication was used might be helpful for patients with borderline personality disorder. This would acknowledge the potentially helpful effects of a structured model of intervention with systematic follow up. While I am unaware of	Thank you – we have discussed this issue in the introduction to the chapter (under 'placebo effect').

No	Peer Reviewer	No	Section	Comments	Developer's Response
				specific data to support this, the high placebo response rate in some trials gives it some credibility.	
24	Roger Mulder	**8**	Comorbidity	In general the question of comorbidity is a can of worms and it is difficult to know where the boundaries are. One can arguably include treatment of comorbid alcohol and drug disorders which are common and clearly influence the outcome. In addition, should comment be made about what DSM-IV calls "transient, stress-related paranoid ideation or severe dissociative symptoms" and the use of pharmacological treatments. Personally I think this would make it unwieldy.	We agree – also, transient paranoid symptoms can only be mentioned if studies target these symptoms from the outset – but none of them do. The treatment of comorbid alcohol and drug disorders is not covered by this guideline although we mention this very important issue where appropriate (for example, in the chapter considering the evidence for psychological treatments where there are some studies specifically in this population).
25	Roger Mulder	**9**	General	Finally, I wonder whether the issue of informed consent needs to be considered. Given the fact that the treatments have a very poor evidence base and the potential for harm is quite high, should more formal consent be obtained in some way? This might even be useful in agreeing on target symptoms, avoiding polypharmacy, monitoring the response carefully, and	Thank you - this is a very good point which we will discuss and include where appropriate.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				discontinuing drugs if there is no response to the agreed on target symptoms.	
26	Roger Mulder	**10**	General	Overall, I think the guidelines are very good. The fact that many borderline patients receive multiple medications with such a weak evidence base is concerning but hardly the guideline committee's fault.	Thank you.
27	Ken Silk	**1**	6.1	2nd Paragraph "This subdivision of symptoms in BPD…" There is some rationale for this. The 1st comes from the paper by Siever and Davis in Am J Psychiatry Dec 1991 where they propose these four dimensions underlying the pathophysiology (biology) of personality disorders, and the 2nd comes from Soloff's 1998 paper "Symptom-oriented psychopharmacology for personality disorders" (J Prac Psychiatry Behav Health 4:3-11. These "latter" ideas were then incorporated into Soloff's algorithms for psychopharm of BPD published in Bull Menn Clin and April 200 of Psychiat Clin No Am).	Thank you – these suggestions relate to personality disorders as a whole rather than specifically borderline personality disorder. As far as we are aware, no-one in clinical practice or nosology has ever suggested splitting borderline personality disorder in this way.
28	Ken Silk	**2**	6.1.1	Polypharmacy – Zanarini has data for 5 or 6	Thank you – we have added more data from the

No	Peer Reviewer	No	Section	Comments	Developer's Response
				or more simultaneously taken medications. If there is to be a strong proviso against polypharm, then Zanarini's data of 4 or 5 or 6 simultaneous drugs might be worth discussing in a bit more detail here.	Zanarini paper to the chapter to make this clearer.
29	Ken Silk	**3**	6.1.2	Range of symptoms – might want to bring in the polythetic nature of the diagnosis and/or some of the factor analyses, i.e. from the CLPS study (Sanislow)	Thank you. We will consider this – it may be more appropriate in the introduction to the guideline rather than here.
30	Ken Silk	**4**	6.1.2	Recruited through advertisement patients: In our PET study, most of our subjects who met BPD came from advertisements, and probably 50 % were treatment naïve (i.e. were able to keep functioning and not have someone drag them for treatment because they were so annoying to others even though they had emotional lability, anger, devaluation, etc).	Thank you.
31	Ken Silk	**5**	6.1.2	Subjects recruited from primary care settings: there is an interesting editorial by J Craig Nelson in the Am J Psychiatry on why the results from the STAR*D study of depression may differ from other more controlled trials. Many of the STAR*D	Thank you.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				subjects were recruited from primary care settings and were permitted to have greater "co-morbidities" than subjects in other clinical trials, but these STAR*D subjects may more accurately reflect 'real clinical life". (Anxious depression and response to treatment. American Journal of Psychiatry. 165(3):297-9, 2008)	
32	Ken Silk	**6**	6.1.2	Therapeutic alliance. see: 1. Waldinger RJ, Gunderson JG: Completed psychotherapies with borderline patients. Am J Psychotherapy 38:190-202, 1984 2. Waldinger RS, Frank AF: Clinicians' experiences in combining medication and psychotherapy in the treatment of borderline patients. Hosp Comm Psychiatry 40:712-718, 1989a 3. Smith JM: Some dimensions of transference in combined treatment, in The Psychotherapist's Guide to Pharmacotherapy. Edited by Ellison JM. Chicago, Year Book Medical Publishers, 1989, pp 79-94	Thank you for the references. We have added some text on the importance of therapeutic alliance.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				4. Chiles JA, Carlin AS, Benjamin GAH, et al.: A physician, a nonmedical psychotherapist, and a patient: the pharmacotherapy-psychotherapy triangle, in Integrating Pharmacotherapy and Psychotherapy. Edited by Beitman BD, Klerman GL. Washington DC, American Psychiatric Press, 1991, pp 105-118 5. Beitman BD, Chiles J, Carlin A: The pharmacotherapy-psychotherapy triangle: psychiatrist, non-medical psychotherapist, and patient. J Clin Psychiatry 45:458-459, 1984 6. Adelman SA: Pills as transitional objects: a dynamic understanding of the use of medication in psychotherapy. Psychiatry 48: 246-253, 1985	
33	Ken Silk	**7**	6.1.6	Funding bias: You found that no funding source favored active treatment which is at variance from what is published in literature. Any thoughts?	We have brought this to the attention of the relevant journal and have written to the relevant authors. The matter is being further investigated and we felt that we could not include these studies when drawing up our overall conclusions about the dataset.
34	Ken Silk	**8**	6.2.1	Lithium is mentioned but no studies	Thank you, but the Links study is a cross-over trial which we can't use in meta-analyses, and the

No	Peer Reviewer	No	Section	Comments	Developer's Response
				reviewed. Perhaps they didn't make the cut tho' there is the Links study of 1990. Also: Sheard MH. Et al. The effect of lithium on impulsive aggressive behavior in man. Am J Psychiatry. 133(12):1409-13, 1976	Sheard study is for the ASPD guideline.
35	Ken Silk	**9**	6.2.2	The Cowdry et al 1988 study found that Carbamazepine increased depression in BPD. See Gardner DL. Cowdry RW. Development of melancholia during carbamazepine treatment in borderline personality disorder. J CliniPsychopharm:236-9, 1986. There is growing concern that there may be some Stevens-Johnson syndrome risk with carbamazepine	Thank you - the Cowdry et al (1988) is small and tells us very little as all the effects are short-term ones; furthermore it is compromised by carry-over effects. We feel it is of pioneering interest only. It also used an cross-over design.
36	Ken Silk	**10**	6.2.3	Valproate "may be effective in reducing depressive symptoms in people with BPD". Based on 2 studies with an N=39? This is curious, because I know of little evidence in any clinical population that valproate reduces depression. It may have some impact on acute mania and maybe has some effectiveness in preventing mania, but little evidence for an antidepressant effect.	Thank you – we have amended the paragraph.

No	Peer Reviewer	No	Section	Comments	Developer's Response
37	Ken Silk	**11**	6.2.5	Topiramate: Klaus Lieb and Thomas Rinne report that it is the only medication recommended for BPD in the Guidelines in The Netherlands. Not sure that this is true, but I believe that this was reported on at the ISSPD in The Hague.	Thank you but we found no good evidence for topiramate in this population. Since drug trials of this size are usually expensive to undertake, the GDG undertook some investigations to uncover the funding source and succeeded in discovering that this research group had completed a large number of very positive studies across a wide range of disorders (including non psychiatric disorders). We therefore did not include this and other studies by this research group when drawing up our overall conclusions about the dataset.
38	Ken Silk	**12**	6.3.5	Soloff 1993. "The study is too old to contact the study authors." Soloff is alive and well and knowing him he still has the data and he may be able to answer your question. I agree that dose of haloperidol in BPD should be lower than dose for psychotic disorders, but I have been accused when using very low doses of haloperidol of using homeopathic doses.	Thank you – we assume that if the study is more than 5 years old the authors are unlikely to remember the necessary details (and may not have the data since this is the limit of the requirement of most journals regarding retaining data) to answer queries accurately. This is a policy we adopt across all the guidelines we produce.
39	Ken Silk	**13**	6.3.6	For both the haloperidol and the Aripiprazole conclusions, you say there is little evidence for its effectiveness in BPD. But since BPD is a heterogeneous disorder,	Thank you, this relates to the issues of comorbidity and whether individual symptom dimensions can be treated separately. It is very easy for us to suggest that when drug effects are being shown that this is a consequence of treating

No	Peer Reviewer	No	Section	Comments	Developer's Response
				then one might want to go back and reemphasize that some medications may be helpful with some specific symptoms of BPD. It does appear that the antipsychotics, both FGAs and SGAs do have some moderate impact on anxiety, depression and hostility and perhaps impulsivity. These in turn may mitigate some of the expression of BPD and modify some of the interpersonal chaos these patients tend to find themselves in. But there will NOT b any medication that will treat BPD because we do not really know what BPD is other than when it meets the DSM criteria set.	a comorbid disorder, but of course we cannot dissect drug effects. Looking at the evidence for individual symptoms regardless of diagnosis is this very difficult to do systematically; we believe that we have considered all relevant studies of people with a diagnosis of borderline personality disorder. We have made some changes to the overall clinical summary. There is no evidence that drugs alter the fundamental nature of the disorder in either the short or longer term.
40	Ken Silk	**14**	6.3.8	In the Zanarini trial of olanzapine versus the olanzapine-fluoxetine combination, the combination did no better than olanzapine alone. But in this study, if I am correct, there was some effectiveness for olanzapine in terms of rate of improvement	Thank you. We didn't look at rate of improvement as we did not think it was of any significance. This was only an 8 week trial and early improvement is unlikely to be due to change in personality
41	Ken Silk	**15**	6.4.2	In discussing TCAs, the note that TCAs are more toxic seems understated. They are significantly more toxic than SSRIs, and thus should be used with extreme caution in	Thank you – we have amended the sentence.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				labile suicidal patients.	
42	Ken Silk	**16**	6.4.3	In discussing antidepressants in BPD, it might be useful to have a very brief discussion as to the nature of depression in BPD. While people with BPD have major depressive episodes, very often what people perceive of as depression in BPD is not major depression but dysthymia, loneliness, emptiness. The reader should be cautioned against interpreting these latter affects with true depression and then falling into polypharmacy in trying to beat water out of the non-majorally depressed depressed stone.	Thank you – we will include this in the analysis of the data by outcome later in the chapter (section depression).
43	Ken Silk	**17**	6.5.2	I might say that there is some intriguing evidence that omega-3 fatty acids may have some impact on depression in BPF (the above paragraph by me notwithstanding)	Thank you.
44	Ken Silk	**18**	6.7.6	While a variety of different drugs and drug categories may be somewhat helpful in reducing the depression in BPD especially when there is co-morbid affective disorder, what stands out is that SSRIs are really not among the group of medications that are	Thank you – this is what we found.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				somewhat effective. This is an intriguing finding because I think that SSRIs are probably the drug that is most frequently utilized in an attempt to relieve the depression in BPD.	
45	Ken Silk	**19**	6.11	I like Table 56 very much but am still sceptical about divalproex and depression	Thank you – we have amended this table in the light of your comment and also in light of other factors. We are also considering whether it is helpful and may remove it for the final draft of the guideline.
46	Ken Silk	**20**	6.12	Very good	Thank you.
47	Ken Silk	**21**	6.14	Very important. Patients often wind up on polypharm because of repeated crises.	Thank you.
48	Ken Silk	**22**	6.17.1	You make the statement that one should "discontinue ineffective medication following a reasonable trial". I might suggest something stronger. If a medication is ineffective after a reasonable period of time, then it should be discontinued before trying a different medication. There is little in the psychiatric literature except for some recent but not very powerful findings from the STAR*D study that augmenting one medication with another results in better	Thank you – we have amended the recommendation to include this point.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				clinical outcome. Psychiatric medications are not benign and side effects are not uncommon. Weight gain to a greater or lesser extent is often common save for topiramate and zisprasidone. It is unwise to try augmenting one medication with another if the only definitive result might be weight gain (there is a Zanarini paper on this). Also, we are often dealing with people who have poor self esteem and a poor body image and to help these people gain weight does not help their overall self esteem.	
49	John Oldham	**1**	6.1	Is the definition of BPD utilized here that of DSM-IV? (This may be defined earlier in the guideline.) A pertinent reference to add is Bender DS, Dolan RT, Skodol AE, Sanislow CA, Dyck IR, Gunderson JG, McGlashan TH, Shea MT, Zanarini MC, Oldham JM: Treatment utilization by patients with personality disorders. *American Journal of Psychiatry* 158:295-302, 2001. Do not agree with statement that the "main purpose of this classification appears to be to	Thank you. Yes, DSM-IV has been used. It is defined in the introduction to the guideline which we did not send you. Thank you for the reference suggestion. The paper does not give specific figures for polypharmacy so we haven't included it here. The justification for this separation is based on a psychobiological theory of

No	Peer Reviewer	No	Section	Comments	Developer's Response
				justify pharmacotherapy in the form of....." There are RCTs of different drugs, many of which are itemized later, targeting predominant symptom patterns, reflecting the significant heterogeneity in the DSM polythetic definition of BPD.	personality pathology (Siever & Davis, 1981) that has been used pragmatically in assisting drug treatment but which has no satisfactory evidence base. We have added this to this section. Siever LJ & Davis KL A psychobiological perspective on the personality disorders. Am J Psychiatry. 1991 Dec;148(12):1647-58
50	John Oldham	**2**	6.1.2	Would change "not always representative" at end of first paragraph to "not necessarily prototypical" Under "Placebo effect," what is the basis for the claim that people with BPD "are particularly prone to the placebo effect"? Is there a reference?	On reflection, we agree that the evidence is lacking as to whether people with BPD are more susceptible to placebo effects and have amended the wording to reflect this.
51	John Oldham	**3**	6.1.4	Is there a justification cited elsewhere for including unpublished studies?	We try to include as many unpublished studies as we can in order to provide as wide an evidence base as possible. There have been a relatively large number of studies completed, but not yet published, during the development period of the guideline. Since the evidence base is so small we tried to include as many as possible, subject to avoiding prejudicing publication in peer-reviewed journals.
52	John	**4**	6.1.6	In the first line, "effect" should be "affect"	Thank you - we have corrected this.

No	Peer Reviewer	No	Section	Comments	Developer's Response
	Oldham				
53	John Oldham	**5**	6.2.1	Is the high co-occurrence referred to in the first sentence established? Reference would be helpful.	Thank you - we have added a reference Swartz HA, Pilkonis PA, Frank E, Proietti JM, Scott J. Acute treatment outcomes in patients with bipolar I disorder and co-morbid borderline personality disorder receiving medication and psychotherapy. Bipolar Disord. 2005 Apr;7(2):192-7.
54	John Oldham	**6**	6.2.2	In the second paragraph, not sure what is meant by the conclusion that the "theoretical basis for its use in people with BPD is weak"	Thank you – we have deleted this sentence.
55	John Oldham	**7**	6.2.5	Reference is made to the Nikel 2005 study of men with BPD. Most BPD studies involve predominantly women, and co-morbidity patterns, and therefore overall clinical patterns, are thought to be quite different between BPD males and BPD females. This might be added to the non-generalizable nature of this study.	Thank you.
56	John Oldham	**8**	6.3.5	The last sentence overstates the case, advising against haloperidol "in the management of BPD," whereas the focus	Thank you – we have amended the sentence.

No	Peer Reviewer	No	Section	Comments	Developer's Response
				here was on the use of haloperidol as a mood stabilizer.	
57	John Oldham	**9**	6.4.4	Is the last statement under "Comment" meant to refer to the use of antidepressants as primary therapy for BPD, vs symptom-targeted adjunctive therapy? Also, many BPD patients have co-morbid major depressive disorder. Should this be addressed?	Thank you – yes, we are referring to antidepressants as primary therapy for BPD and have amended the paragraph to make our meaning clearer. It has also been amended to consider the issue of co-morbid depression which is an important issue.
58	John Oldham	**10**	6.12.1.1	Again, what about symptom-targeted adjunctive treatment?	We do recommend the use of pharmacological (and other evidence based) interventions for the treatment of comorbid disorder. We found no evidence to support symptom-targeted adjunctive treatment.
59	John Oldham	**11**	6.14.1	The authors liberally disavow the use of medications based on good careful analysis of the data, then here present recommendations of what staff "should" do. What is the evidence supporting this advice?	We agree that there is little evidence to support the use of medication in this group, and a little more than that for psychological treatments. However, as a piece of guidance we have to supplement evidence with consensus recommendations where evidence is lacking. We are nevertheless, cautious in our consensus recommendations and follow these with recommendations about minimising harm and reducing drug use.
60	John	**12**	6.115.2?	Same as above.	As above.

No	Peer Reviewer	No	Section	Comments	Developer's Response
	Oldham				
61	John Oldham	**13**	General	Congratulations on an in-depth and highly informative document.	Thank you.

Appendix 12: Search strategies for the identification of health economics evidence

Search strategies for the identification of health economics and quality-of-life studies.

1. Guideline topic search strategies

a. MEDLINE, EMBASE, PsycINFO, CINAHL – Ovid interface

1 (borderline state or borderline person$).sh.
2 borderline$.mp. and exp personality disorders/
3 (borderline$ adj3 (disorder$ or person$ or PD$1 or state$)).tw. or (borderline$ and
personalit$).mp.
4 (borderline$ and cluster b).mp.
5 (emotion$ adj2 (instabil$ or unstable) adj3 (character$ or difficult$ or disorder$ or
dysfunction$ or PD or person$1 or personalit$ or state$)).tw.
6 or/1-5
7 (multiple personality disorder$ or personality disorder$).sh.
8 (personalit$ adj (disorder$ or dysfunction$)).tw.
9 (dsm and (axis and II)).mp.
10 or/7-9
11 or/6,10

b. NHS Economic Evaluation Database, Health Technology Assessment Database
— Wiley interface

1 MeSH descriptor Borderline Personality Disorder, this term only
2 (borderline*)
3 MeSH descriptor Personality Disorders explode all trees
4 (#2 AND #3)
5 (borderline* near/3 (disorder* or person* or PD* or state*)) or (borderline* and
personalit*)
6 (borderline* and cluster near/1 b)
7 (emotion* near/2 (instabil* or unstable) near/3 (character* or difficult* or disorder* or
dysfunction* or PD or person* or state*))
8 (#1 OR #4 OR #5 OR #6 OR #7)
9 MeSH descriptor Multiple Personality Disorder, this term only
10 MeSH descriptor Personality Disorders, this term only
11 (personalit* near/1 (disorder* or dysfunction*))

12 (dsm and (axis and II))
13 (#9 OR #10 OR #11 OR #12)
14 (#8 OR #13)

c. OHE HEED — Wiley interface

1. ax= borderline*
2. ax= DSM and (Axis and II)
3. ax= emotion* and (instabil* or unstable) and (character* or difficult* or disorder* or dysfunction* or PD or person or persons or personalit* or state*)
4. ax= personalit* and (disorder* or dysfunction*)
5. cs= 1 or 2 or 3 or 4

2 Health economics and auality-of-life search filters

a. MEDLINE, EMBASE, PsycINFO, CINAHL — Ovid interface

1 exp "costs and cost analysis"/ or "health care costs"/
2 exp health resource allocation/ or exp health resource utilization/
3 exp economics/ or exp economic aspect/ or exp health economics/
4 exp value of life/
5 (burden adj5 (disease or illness)).tw.
6 (cost or costs or costing or costly or economic$ or or expenditure$ or price or prices or
pricing or pharmacoeconomic$).tw.
7 (budget$ or financ$ or fiscal or funds or funding).tw.
8 (resource adj5 (allocation$ or utilit$)).tw.
9 or/1-8
10 (value adj5 money).tw.
11 exp quality of life/
12 (qualit$3 adj5 (life or survival)).tw.
13 (health status or QOL or wellbeing or well being).tw.
14 or/9-13

Details of additional searches undertaken to support the development of this guideline are available on request.

Appendix 13: Quality checklist for economic studies

Full economic evaluations

Author: **Date:**

Title:

	Study design	Yes	No	NA
1	The research question is stated	❑	❑	
2	The viewpoint(s) of the analysis are clearly stated	❑	❑	
3	The alternatives being compared are relevant	❑	❑	
4	The rationale for choosing the alternative programmes or interventions compared is stated	❑	❑	
5	The alternatives being compared are clearly described	❑	❑	
6	The form of economic evaluation used is justified in relation to the question addressed	❑	❑	
	Data collection			
1	The source of effectiveness data used is stated	❑	❑	
2	Details of the design and results of the effectiveness study are given	❑	❑	❑
3	The primary outcome measure(s) for the economic evaluation are clearly stated	❑	❑	
4	Methods to value health states and other benefits are stated	❑	❑	
5	Details of the subjects from whom valuations were obtained are given	❑	❑	
6	Indirect costs (if included) are reported separately	❑	❑	❑
7	Quantities of resources are reported separately from their unit costs	❑	❑	
8	Methods for the estimation of quantities and unit costs are described	❑	❑	
9	Currency and price data are recorded	❑	❑	
10	Details of currency of price adjustments for inflation or currency conversion are given	❑	❑	❑
11	Details of any models used are given	❑	❑	❑
12	The choice of model used and the key parameters on which it is based are justified	❑	❑	❑
	Analysis and interpretation of results			
1	Time horizon of costs and benefits is stated	❑	❑	

2	The discount rate(s) is stated	❑	❑	❑
3	The choice of rate(s) is justified	❑	❑	❑
4	An explanation is given if costs or benefits are not discounted	❑	❑	❑
5	Details of statistical tests and confidence intervals are given for stochastic data	❑	❑	❑
6	The approach to sensitivity analysis is given	❑	❑	
7	The choice of variables for sensitivity analysis is given	❑	❑	
8	The ranges over which the variables are varied are stated	❑	❑	
9	Relevant alternatives are compared	❑	❑	
10	Incremental analysis is reported	❑	❑	❑
11	Major outcomes are presented in a disaggregated as well as aggregated form	❑	❑	
12	The answer to the study question is given	❑	❑	
13	Conclusions follow from the data reported	❑	❑	
14	Conclusions are accompanied by the appropriate caveats	❑	❑	

Appendix 14: Data extraction form for economic studies

Reviewer: **Date of Review:**

Authors:

Publication Date:

Title:

Country:

Language:

Economic study design:

- ❑ CEA
- ❑ CBA
- ❑ CUA
- ❑ CMA
- ❑ CCA
- ❑ CA

Modelling:

- ❑ No
- ❑ Yes

Source of data for effect size measure(s):

- ❑ RCT
- ❑ Quasi experimental study
- ❑ Cohort study
- ❑ Mirror image (before-after) study
- ❑ Meta-analysis
- ❑ RCT
- ❑ Quasi experimental study
- ❑ Cohort study
- ❑ Mirror image (before-after) study
- ❑ Expert opinion

Comments _____

Primary outcome measure(s) (please list):

_____

Interventions compared (please describe):

Treatment: _____

Comparator: _____

Setting (please describe):

_____

Patient population characteristics (please describe):

Perspective of analysis:

❑ Societal
❑ Patient and family
❑ Health care system
❑ Health care provider
❑ Third party payer
❑ Other: _____

Time frame of analysis: _____

Cost data:

❑ Primary ❑ Secondary

If secondary please specify: _____

Costs included:

Direct medical	Direct non-medical	Lost productivity
❑ direct treatment	❑ social care	❑ income forgone due to illness
❑ inpatient	❑ social benefits	❑ income forgone due to death
❑ outpatient	❑ travel costs	❑ income forgone by caregiver
❑ day care	❑ caregiver out-of-pocket	
❑ community health care	❑ criminal justice	
❑ medication	❑ training of staff	

Or

❑ staff
❑ medication
❑ consumables
❑ overhead
❑ capital equipment
❑ real estate

Others: _____

Currency: _____ **Year of costing:** _____

Was discounting used?

❑ Yes, for benefits and costs ❑ Yes, but only for costs ❑ No

Discount rate used for costs: _____

Discount rate used for benefits: _____

Result(s):

Comments, limitations of the study:

Quality checklist score (Yes/NA/All): ……/……/……

Appendix 15: Evidence tables for economic studies

Psychological interventions in the management of borderline personality disorder
Complex interventions
Dialectical Behaviour Therapy (DBT)

Study ID Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments Quality score (Y/N/NA)
Brazier et al., 2006 (based on TURNER2000) UK Cost-effectiveness and cost-utility analysis	Interventions: Dialectical Behaviour Therapy (DBT) Client-centrered therapy (CCT)	People with borderline personality disorder Decision-analytic modelling Source of clinical effectiveness data: RCT (TURNER2000) Source of resource use: RCT (TURNER2000), other published RCT, UK survey of DBT practitioners, further assumptions Source of unit costs: national sources	Costs: Healthcare: intervention & staff supervision costs, inpatient & outpatient care, A&E attendances, day hospital, medication, community services, primary care Social services: day centre, social worker, sheltered workshop, other Criminal justice system, community accommodation Sensitivity analysis for societal perspective: voluntary sector, productivity losses Total cost per person: DBT: £15,743 ; CCT: £20,985 (non-significant difference) Primary outcomes: number of parasuicide events, QALYs gained Number of parasuicide events per person: DBT: 2.92 CCT: 12.33 (significant difference) Number of QALYs gained per person: DBT: 0.17 CCT: 0.05 (non-significant difference)	DBT dominates CCT Probability of DBT being cheaper and more effective than CCT (in terms of reduction in parasuicide events): 80%; probability of being cost-effective: 85% at willingness to pay λ=£5,000 per parasuicide event avoided Probability of DBT being cheaper and more effective than CCT (in terms of QALYs): 85%; probability of being cost-effective: 90% at willingness to pay λ=£20,000 per QALY Results insensitive to NICE perspective; magnitude of costs in both arms increased by 75% when adopting a societal perpective	Perspective: government (NICE and societal in sensitivity analysis) Currency: UK£ Cost year: 2003-2004 Time horizon: 12 months Discounting: not needed Regression cost model developed to link length of inpatient stay and parasuicide events with costs BDI scores converted to EuroQol-5D scores in order to generate QALYs Quality score: 29/0/6

Study ID **Country** **Study type**	**Intervention details**	**Study population** **Study design** **Data sources**	**Costs: description and values** **Outcomes: description and values**	**Results: Cost-effectiveness**	**Comments** **Quality score (Y/N/NA)**
Brazier et al., 2006 (based on LINEHAN1991) UK Cost-effectiveness analysis	Interventions: Dialectical Behaviour Therapy (DBT) Treatment as usual (TAU)	People with borderline personality disorder Decision-analytic modelling Source of clinical effectiveness data: RCT (LINEHAN1991) Source of resource use: RCT (LINEHAN1991), further assumptions Source of unit costs: national sources	Costs: Healthcare: intervention & staff supervision costs, inpatient & outpatient care, A&E attendances, day hospital, medication, community services, primary care Social services: day centre, social worker, sheltered workshop, other Criminal justice system, community accommodation Sensitivity analysis for societal perspective: voluntary sector, productivity losses Total cost per person: DBT: £15,691 TAU: £16,898 (non-significant difference) Primary outcome: number of parasuicide events Number of parasuicide events per person: DBT: 6.82 TAU: 33.54 (non-significant difference)	DBT dominates TAU Probability of DBT being cheaper and more effective than TAU: 53%; probability of being cost-effective: 60% at willingness to pay λ=£5,000 per parasuicide event avoided Results insensitive to NICE perspective; magnitude of costs in both arms increased by 75% when adopting a societal perpective	Perspective: government (NICE and societal in sensitivity analysis) Currency: UK£ Cost year: 2003-2004 Time horizon: 12 months Discounting: not needed Quality score: 27/0/8

Study ID Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments Quality score (Y/N/NA)
Brazier et al., 2006 (based on VAN DEN BOSCH2002) UK Cost-effectiveness analysis	Interventions: Dialectical Behaviour Therapy (DBT) Treatment as usual (TAU)	People with borderline personality disorder Decision-analytic modelling Source of clinical effectiveness data: RCT (VAN DEN BOSCH2002) Source of resource use: RCT (VAN DEN BOSCH2002), other published RCT, UK survey of DBT practitioners, further assumptions Source of unit costs: national sources	Costs: Healthcare: intervention & staff supervision costs, inpatient & outpatient care, A&E attendances, day hospital, medication, community services, primary care Social services: day centre, social worker, sheltered workshop, other Criminal justice system, community accommodation Sensitivity analysis for societal perspective: voluntary sector, productivity losses Total cost per person: DBT: £17,430; TAU: £16,706 (non-significant difference) Primary outcome: number of parasuicide events Number of parasuicide events per person: DBT: 16 TAU: 34.1 (non-significant difference)	ICER of DBT versus TAU: £40 per parasuicide event avoided Probability of DBT being more cost-effective than TAU: 65% at any level of willingness to pay per parasuicide event avoided Results insensitive to NICE perspective; DBT dominated TAU when adoptin a societal perspective	Perspective: government (NICE and societal in sensitivity analysis) Currency: UK£ Cost year: 2003-2004 Time horizon: 12 months Discounting: not needed Regression cost model developed to link length of inpatient stay and parasuicide events with costs Quality score: 27/0/8

Study ID **Country** **Study type**	**Intervention details**	**Study population** **Study design** **Data sources**	**Costs: description and values** **Outcomes: description and values**	**Results: Cost-effectiveness**	**Comments** **Quality score (Y/N/NA)**
Brazier et al., 2006 (based on KOONS2001) UK Cost-effectiveness and cost-utility analysis	Interventions: Dialectical Behaviour Therapy (DBT) Treatment as usual (TAU)	People with borderline personality disorder Decision-analytic modelling Source of clinical effectiveness data: RCT (KOONS2001) Source of resource use: RCT (KOONS2001), other published RCT, UK survey of DBT practitioners, further assumptions Source of unit costs: national sources	Costs: Healthcare: intervention & staff supervision costs, inpatient & outpatient care, A&E attendances, day hospital, medication, community services, primary care Social services: day centre, social worker, sheltered workshop, other Criminal justice system, community accommodation Sensitivity analysis for societal perspective: voluntary sector, productivity losses Total cost per person: DBT: £23,439 TAU: £14,815 (significant difference) Primary outcomes: number of parasuicide events, QALYs gained Number of parasuicide events per person: DBT: 4 TAU: 4.2 (non-significant difference) Number of QALYs gained per person: DBT: 0.07 TAU: 0.04 (non-significant difference)	ICER of DBT versus TAU: £43,124 per parasuicide event avoided £273,801 per QALY Probability of DBT being cost-effecitve (in terms of reduction in parasuicide events): lower than 40% at willingness to pay λ=£5,000 per parasuicide event avoided Probability of TAU being more cost-effective than DBT (in terms of QALYs): 95% at willingness to pay λ=£20,000 per QALY Results insensitive to NICE perspective; magnitude of costs in both arms increased by 75% when adopting a societal perpective	Perspective: government (NICE and societal in sensitivity analysis) Currency: UK£ Cost year: 2003-2004 Time horizon: 12 months Discounting: not needed Regression cost model developed to link length of inpatient stay and parasuicide events with costs BDI scores converted to EuroQol-5D scores in order to generate QALYs Quality score: 29/0/6

Mentalisation-based therapy and partial hospitalisation

Study ID Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments Quality score (Y/N/NA)
Bateman & Fonagy, 2003 (BATEMAN1999) UK Cost-consequence analysis	Interventions: Mentalisation-based therapy and partial hospitalisation (MBT) Treatment as usual within general psychiatric services (TAU)	People with borderline personality disorder RCT (N=44) Source of clinical effectiveness data: N=38 people from RCT Source of resource use: retrospective collection of resource use data from RCT (N=41); data taken from case notes and information from service providers Source of unit costs: published local rates	Costs: Psychiatric care: inpatient, outpatient, partial hospitalisation; medication; emergency room visits Costs of community support not included Total estimated annual cost per person – based on data from first 18 months: MBT: $27,303 TAU: $30,976 (non-significant difference) Total estimated annual cost per person – based on data from 18-36 months: MBT: $3,183 TAU: $15,490 (significant difference) Outcomes: number of suicide attempts and acts of self harm; self-reported measures of depression, anxiety, general symptom distress, interpersonal function, and social adjustment MBT significantly better than TAU in all outcomes at 18 months; significant superiority of MBT remained at 36 months	MBT dominates TAU as it is more effective at lower cost in the long term	Perspective: NHS Currency: US$ Cost year: not reported Time horizon: 18 and 36 months Discounting: not undertaken Quality score: 19/4/12

Study ID **Country** **Study type**	**Intervention details**	**Study population** **Study design** **Data sources**	**Costs: description and values** **Outcomes: description and values**	**Results: Cost-effectiveness**	**Comments** **Quality score (Y/N/NA)**
Brazier et al., 2006 (based on BATEMAN1999) UK Cost-effectiveness and cost-utility analysis	Interventions: Mentalisation-based therapy and partial hospitalisation (MBT) Treatment as usual within general psychiatric services (TAU)	People with borderline personality disorder Decision-analytic modelling Source of clinical effectiveness data: RCT (BATEMAN1999) Source of resource use: RCT (BATEMAN1999), further assumptions Source of unit costs: national sources	Costs: Healthcare: intervention & staff supervision costs, inpatient & outpatient care, A&E attendances, day hospital, medication, community services, primary care Social services: day centre, social worker, sheltered workshop, other Criminal justice system, community accommodation Sensitivity analysis for societal perspective: voluntary sector, productivity losses Total cost per person: MBT: £18,174 TAU: £17,743 (non-significant difference) Primary outcomes: number of parasuicide events, QALYs gained Number of parasuicide events per person: MBT: 6.1 TAU: 17.5 (significant difference) Number of QALYs gained per person: MBT: 0.04 TAU: -0.01 (non-significant difference)	ICER of MBT versus TAU: £38 per parasuicide event avoided £7,242 per QALY gained Probability of MBT being cost-effective (in terms of reduction in parasuicide events): 80% at willingness to pay λ=£5,000 per parasuicide event avoided Probability of TAU being more cost-effective than MBT (in terms of QALYs): 55% at willingness to pay λ=£20,000 per QALY Results insensitive to NICE perspective; magnitude of costs in both arms increased by 75% when adopting a societal perpective	Perspective: government (NICE and societal in sensitivity analysis) Currency: UK£ Cost year: 2003-2004 Time horizon: 12 months Discounting: not needed BDI scores converted to EuroQol-5D scores in order to generate QALYs Quality score: 29/0/6

Individual psychological therapies

Cognitive Behavioural Therapy (CBT)

Study ID **Country** **Study type**	**Intervention details**	**Study population** **Study design** **Data sources**	**Costs: description and values** **Outcomes: description and values**	**Results: Cost-effectiveness**	**Comments** **Quality score (Y/N/NA)**
Palmer et al., 2006 (DAVIDSON2006) UK Cost-utility analysis	Interventions: CBT plus treatment as usual (CBT) Treatment as usual alone (TAU)	People with borderline personality disorder Multicentre RCT (N=106) Source of clinical effectiveness data: RCT (N=106, ITT analysis) Source of resource use: RCT (N=106); data derived from hospital records and patient self-reports based on an adapted version of the Client Service Receipt Inventory (CSRI) Source of unit costs: local data, national sources and patients' reports	Costs: Intervention costs Hospital: inpatient, outpatient, day case, day hospital, A&E Community day services: day care, drop-in centre, sheltered workshop Accommodation Primary and community care: GP, nurses, social worker, occupational therapist, etc Criminal justice system: arrests, court, prison Patient: travel, childcare, over the counter medication Total cost per person over 2 years: CBT: £12,785 TAU: £18,356 (non-significant difference) Primary outcome: number of QALYs Number of QALYs over 2 years: CBT: 1.06 TAU: 1.20 (non-significant difference)	ICER of TAU versus CBT: £6,376/QALY (CBT in south-west quadrant of cost effectiveness plane) Probability of CBT being cost-effective: 53% at willingness to pay λ=£2,000/QALY; probability falling with increasing λ	Perspective: NHS, social services, other providers and patients Currency: UK£ Cost year: 2003/2004 Time horizon: 2 years Discounting: 3.5% annually QALYs generated based on EuroQol-5D scores Quality score: 26/0/9

Brief psychological interventions

Manual-assisted cognitive therapy (MACT)

Study ID Country Study type	Intervention details	Study population Study design Data sources	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments Quality score (Y/N/NA)
Byford et al., 2003 (TYRER2003) UK Cost-effectiveness and cost-utility analysis	Interventions: Manual-assisted cognitive therapy (MACT) Treatment as usual (TAU)	People with a history of recurrent deliberate self-harm, including people with borderline personality disorder Multicentre RCT (N = 480) Source of clinical effectiveness data: RCT (N=430) Source of resource use estimates: RCT (N=397) data based on patient interviews using an adapted version of the Client Service Receipt Inventory (CSRI) Source of unit costs: local data and national sources	Costs: Hospital, community health services, medication, social services, voluntary services, accommodation and living expenses, criminal justice system, productivity losses Total cost per person over 12 months: MACT: £13,450 TAU: £14,288 (non-significant difference) Primary outcomes: proportion of people with a repeat self-harm episode; QALYs Proportion of people with a repeat self-harm episode at 12 months: MACT: 39% TAU: 46% (non-significant difference) Difference in QALYS over 12 months: MACT 0.118 QALYs less than TAU (non-significant difference) [QALYs for each intervention not reported separately]	For outcome measured as proportion of people with a repeat self-harm: MACT dominates TAU Probability of MACT being cost-effective: >90% at any level of willingness to pay For outcome measured as QALYs: ICER of TAU versus MACT: £66,000/QALY (MACT in south-west quadrant of cost effectiveness plane) Probability of MACT being cost-effective: between 44%-88%; at willingness to pay λ ranging between 0 and 66,0000/QALY, MACT has higher probability of being cost-effective compared to TAU	Perspective: societal Currency: UK£ Cost year: 1999/2000 Time horizon: 12 months Discounting: not needed QALYs generated based on EuroQol-5D scores Quality score: 26/0/9

Study ID **Country** **Study type**	**Intervention details**	**Study population** **Study design** **Data sources**	**Costs: description and values** **Outcomes: description and values**	**Results: Cost-effectiveness**	**Comments** **Quality score (Y/N/NA)**
Brazier et al., 2006 (based on TYRER2003) UK Cost-effectiveness and cost-utility analysis	Interventions: Manual-assisted cognitive therapy (MACT) Treatment as usual (TAU)	People borderline personality disorder (data from TYRER2003 allowed sub-group analysis on this population) Decision-analytic modelling Source of clinical effectiveness data: RCT (TYRER2003) Source of resource use: RCT (TYRER2003), further assumptions Source of unit costs: national sources	Costs: Healthcare: intervention & staff supervision costs, inpatient & outpatient care, A&E attendances, day hospital, medication, community services, primary care Social services: day centre, social worker, sheltered workshop, other Criminal justice system, community accommodation Sensitivity analysis for societal perspective: voluntary sector, productivity losses Total cost per person: MACT: £9,580; TAU: £7,563 Primary outcomes: number of parasuicide events, QALYs gained Number of parasuicide events per person: MACT: 4.9 TAU: 1.7 (non-significant difference) Number of QALYs gained per person: MACT: 0.19 TAU: 0.14	For outcome measured as number of parasuicide events: TAU dominates MACT Probability of TAU being cost-effecitve: 60% at any level of willingness to pay per parasuicide event avoided For outcome measured as QALYs: ICER of MACT versus TAU: £84,032/QALY Probability of MACT being more cost-effective than TAU: 45% at willingness to pay λ=£20,000 per QALY Results insensitive to NICE perspective; magnitude of costs in both arms increased by 75% when adopting a societal perpective	Perspective: government (NICE and societal in sensitivity analysis) Currency: UK£ Cost year: 2003-2004 Time horizon: 12 months Discounting: not needed EuroQol-5D scores taken directly from the study in order to generate QALYs Quality score: 29/0/6

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13 Abbreviations

[A full list of abbreviations will be inserted here after final draft]

14 Glossary

[A full glossary of terms will be inserted here after final draft]