



## SMOKING CESSATION IN MENTAL HEALTH SERVICES

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# Review 5: Barriers and Facilitators for Smoking cessation interventions in Mental Health

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**November 2021:** NICE guidelines PH45 (June 2013) and PH48 (November 2013) have been updated and replaced by NG209.

The recommendations labelled [2013] or [2013, amended 2021] in the updated guideline were based on these evidence reviews.

See [www.nice.org.uk/guidance/NG209](http://www.nice.org.uk/guidance/NG209) for all the current recommendations and evidence reviews.

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## **FIGURES PAGE**

**Figure 1**                      Flow chart of study selection

## EXECUTIVE SUMMARY

### BACKGROUND

The strong relationship between smoking and severe mental illness, as well as the complexity of neurobiological, environmental and genetic factors contributing to it, are well recognised. Smoking prevalence among people diagnosed with a severe mental illness, such as schizophrenia, can reach 70% or more, by far exceeding prevalence in the general population (21%), and levels of tobacco dependency have also been found to be higher. Much of the excess mortality and morbidity in people with severe mental illness has been found to be associated with smoking related conditions, and rates of cardiovascular and respiratory diseases as well as cancers are increased compared to the general population. Although smoking has been identified as one of the major contributors to health inequalities in this population, smoking is still the norm in many mental health settings, and no best practice models for the provision of effective support in mental health settings have been identified.

### AIM OF THE REVIEW

This systematic review aims to identify the factors that act as barriers or facilitators to implementing smoking cessation and temporary abstinence interventions, including strategies for referring people to stop smoking or hospital/unit based stop smoking services, from the perspectives of users and providers in mental health services.

### QUESTIONS OF THE REVIEW

The review addressed the following key research questions:

- *What are the barriers and facilitators that affect the delivery of effective interventions, for example the interventions as identified in review 4?*
- *How can community, primary, and secondary care mental health care providers collaborate more effectively to integrate smoking cessation support within care pathways?*

Subsidiary questions included:

- *What are the views (knowledge, attitudes, and beliefs) of the populations of interest in mental health services (all patients, service users [including family, carers, and visitors]) who may use smoking cessation or temporary abstinence interventions?*
- *What are the views (knowledge, attitudes, and beliefs) of the service providers within the NHS stop smoking services and mental health staff within hospitals, outpatient clinics and the community, including intensive services in psychiatric units and secure hospitals?*
- *Are there differences in acceptability of smoking cessation and temporary abstinence interventions by deliverer, setting, timing (or point in the care pathway), frequency, duration, and severity of dependence?*
- *Are there differences in acceptability of smoking cessation and temporary abstinence interventions by mental health diagnosis, gender, sexual orientation, age, ethnicity, religion,*

*socioeconomic status, disability, and population of interest (including patients, household members, visitors and staff)?*

## METHODS

A systematic review was conducted to address the questions of the review. A comprehensive search strategy of electronic databases, websites, and reference screening was performed, with searches being conducted in February 2012. We considered any qualitative or quantitative studies which included the following populations of interest of any age who smoked:

- All users of secondary care mental health services, including those who are in the process of being referred to or have recently been discharged from child, adolescent, adult or older people mental health services:
  - Inpatient, residential and long-term care for severe mental illness in hospitals, psychiatric and specialist units and secure hospitals
  - Patients who are within the care of specialist community-based multidisciplinary mental health teams
- People living in the same household as a mental health service user, such as partners, parents, other family members and carers
- Visitors to secondary care mental health setting who are not receiving treatment or care, such as relatives or friends of patients or service users
- Staff (including support staff, volunteers, agency/locum staff and staff employed by contractors) working in secondary care mental health settings, in particular those who have direct contact with patients and service users

We considered any barriers or facilitators (including knowledge, attitudes and beliefs) of using or implementing smoking cessation or temporary abstinence approaches. We included any pharmacological (including behavioural support, counselling and advice [with and without a pharmacological intervention]), psychological or self-help intervention that aimed to assist with smoking cessation or temporary abstinence. We also included any approaches used by, or with, mental health professionals/ mental health care providers/ the wider care team to increase recording, identification and/or referral to stop smoking services or mental healthcare-based stop-smoking services.

Two reviewers independently screened 10% of titles and abstracts, and full texts to ensure high agreements between reviewers. The remaining titles and abstracts, and full texts were then screened by one of the reviewers. 10% of the included studies were independently data extracted and quality assessed by two reviewers to ensure high agreement; then the remaining papers were extracted by one of the reviewers.

## RESULTS

46 primary studies were included in the review. The majority of the included studies focused on the views, attitudes, and beliefs of staff, with smaller numbers of studies focusing on the views of patients. Only one study was identified that assessed the views of relatives and main caregivers. One publication detailed findings from the implementation of a tailored tobacco dependence treatment

service in mental health settings. Eighteen studies focused on inpatient settings, with a further 16 focusing on community based settings, nine focused on both settings, and the setting was unclear in the remaining three studies. The majority of the studies were conducted in the USA, with only 10 studies being conducted in the UK. The majority of studies used a survey based questionnaire design, with a further 12 studies using solely a qualitative design, and 6 using a mixed methods design. The majority of the studies were deemed to have medium quality, with similar numbers scoring high and low quality (12 and 11 studies, respectively).

## EVIDENCE STATEMENTS

*Question 1a. What are the views (knowledge, attitudes, and beliefs) of the populations of interest in mental health services (all patients, service users [including family, carers, and visitors]) who may use smoking cessation or temporary abstinence interventions?*

### EVIDENCE STATEMENTS

#### **PATIENTS' VIEWS, ATTITUDES AND PERCEPTIONS REGARDING SMOKING**

ES 1.1 There is strong evidence to suggest inpatients and outpatients' perceived the reasons for smoking are: to gain autonomy [**Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++**]; to relieve boredom [**Dickens 2005, England, S+; Goldberg 1996, Canada, MM++; Green 2005, Canada, Q+; Morris 2009, USA, Q+; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++; Tsourtos 2011, Australia, Q++**]; nicotine addiction [**Solty 2009, Canada, S+; Snyder 2008, USA, Q++; Goldberg 1996, Canada, MM++**]; pleasure and enjoyment [**Edmonds 2007, England, Q++; Goldberg 1996, Canada, MM++; Lawn 2002, Australia, Q++; Lucksted 2000, USA, Q++; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++**]; and to relax and calm down [**Green 2005, Canada, Q+; Morris 2009, USA, Q+; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++; Solty 2009, Canada, S+; Tsourtos 2011, Australia, Q++**].

ES 1.2 There is strong evidence from Canada and England to suggest inpatients and outpatients perceive the need for alternative meaningful activities to replace smoking [**Goldberg 1996, Canada, MM++; Ratschen 2010b, England, Q++**].

ES 1.3 There is strong evidence to suggest inpatients and outpatients smoke to give them a sense of companionship [**Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++**] and as a form of social pastime [**Green 2005, Canada, Q+; Goldberg 1996, Canada, MM++; Lawn 2004, Australia, Q++; Morris 2009, USA, Q+; Snyder 2008, USA, Q++**], particularly in residential care and inpatient settings where smoking was a major component of their interaction with other residents.

ES 1.4 There is strong evidence to suggest inpatients and outpatients report smoking as a form of self-medication to cope with symptoms of their mental illness [**Goldberg 1996, Canada, MM++; Lawn 2002, Australia, Q++; Dickens 2005, England, S++; Morris 2009, USA, Q+; Lucksted 2000, USA, Q++**], and because they fear stopping may result in a deterioration in their illness [**Lawn 2002, Australia, Q++; Lawn 2004, Australia, Q++**].



ES 1.5 There is strong evidence to suggest smoking was a major priority in the lives of inpatients and outpatients with mental illness [**Lawn 2002, Australia, Q++**; **Snyder 2008, USA, Q++**; **Tsourtos 2011, Australia, Q++**].

ES 1.6 There is strong evidence to suggest inpatients and outpatients perceive staff use cigarettes as a mechanism of control in inpatients settings [**Lawn 2002, Australia, Q++**; **Lawn 2004, Australia, Q++**; **Lucksted 2000, USA, Q++**], in particular using them as a reward or punishment in order to control the patient's behaviour [**Lawn 2002, Australia, Q++**; **Lucksted 2000, USA, Q++**].

Applicability: The evidence has direct applicability to the current UK settings and/or practices. Three of the studies were conducted in the UK [**Dickens 2005, England, S+**; **Edmonds 2007, England, Q++**; **Ratschen 2010b, England, Q++**], and a further three were conducted in a country which was deemed to have similar applicability to that of the UK setting [**Lawn 2002, Australia, Q++**; **Lawn 2004, Australia, Q++**; **Tsourtos 2011, Australia, Q++**].

#### PATIENTS' VIEWS, ATTITUDES AND PERCEPTIONS REGARDING MAKING A QUIT ATTEMPT

ES 2.1 There is strong evidence to suggest inpatients and outpatients perceive nicotine addiction as a major barrier to making a quit attempt [**Dickens 2005, England, S+**; **Green 2005, Canada, Q+**; **Goldberg 1996, Canada, MM++**; **Snyder 2008, USA, Q++**].

ES 2.2 There is strong evidence to suggest inpatients and outpatients consider they are unable to quit smoking, primarily related to a lack of motivation [**Goldberg 1996, Canada, MM++**; **Morris 2009, USA, Q+**; **Snyder 2008, USA, ++**]. There was moderate evidence to suggest inpatients and outpatients perceive stress [**Tsourtos, 2011, Australia, ++**], and the severity of their mental health symptoms [**Mikhailovich 2008, Australia, MM-**; **Tsourtos 2011, Australia, Q++**] as barriers to quitting smoking.

ES 2.3 There is moderate evidence to suggest several inpatients and outpatients perceived there was little point in quitting smoking as this would have no direct effect on their recovery from their mental illness [**Lawn 2002, Australia, Q++**], improve their quality of life [**Ratschen 2010b, England, Q++**], or health [**Snyder 2008, USA, Q++**].

ES 2.4 There is strong evidence to suggest inpatients' and outpatients' perceive the influence of peer, family, and social pressure as important barriers to quitting, with patients perceiving it difficult to quit smoking when peers, family, and staff members smoke around them [**Dickens 2005, England, S++**; **Goldberg 1996, Canada, MM++**; **Morris 2009, USA, Q+**].

ES 2.5 There is strong evidence to suggest outpatients perceive the negative views and beliefs of staff as important barriers to quitting smoking [**Green 2005, Canada, Q+**; **Lawn 2002, Australia, Q++**; **Lucksted 2000, USA, Q++**].

ES 2.6 There is moderate evidence from the USA to suggest outpatients perceive they have a lack of knowledge regarding which strategies are effective for smoking cessation [**Morris 2009, USA, Q+**; **Lucksted 2000, USA, Q++**]; with outpatients requesting the need for structured patient education, which detailed relevant information about smoking cessation interventions, issues relating to

psychotropic medications and methods of minimising withdrawal symptoms [**Morris 2009, USA, Q+; Lucksted 2000, USA, Q++**]

ES 2.7 There is mixed evidence regarding the impact of the patients' physical health on quitting smoking, with strong evidence to suggest inpatients' and outpatients' with mental illness perceived worrying about their physical health was a facilitator to quitting smoking [**Dickerson 2011, USA, Q+; Goldberg 1996, Canada, MM++; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+; Tidey 2009, USA, S-; Tsourtos 2011, Australia, Q++**]. However, there is moderate evidence to suggest that outpatients would need to experience a negative health effect of smoking before they would consider quitting [**Dickerson 2011, USA, Q+; Goldberg 1996, Canada, MM++**].

ES 2.8 There is strong evidence to suggest inpatients' and outpatients' perceive the influence of peer, family, and social pressures to quit smoking as important facilitators to quit [**Goldberg 1996, Canada, MM++; Kelly 2010, USA, CC-; Snyder 2008, USA, Q++**].

ES 2.9 There is strong evidence to suggest inpatients and outpatients perceive the high cost of cigarettes as a major facilitator to quitting smoking [**Dickerson 2011, USA, Q+; Goldberg 1996, Canada, MM++; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+**].

ES 2.10 There is moderate evidence to suggest outpatients' perceived they would need to have a positive attitude regarding the success of their quit during a quit attempt to maximise success [**Morris 2009, USA, Q+; Edmonds 2007, England, Q++**].

Applicability: The evidence has direct applicability to the current UK settings and/or practices. Three of the studies were conducted in the UK [**Dickens 2005, England, S+; Edmonds 2007, England, Q++; Ratschen 2010b, England, Q++**], and a further three were conducted in a country which was deemed to have similar applicability to that of the UK setting [**Lawn 2002, Australia, Q++; Mikhailovich 2008, Australia, MM-; Tsourtos 2011, Australia, Q++**].

#### PATIENTS' VIEWS, ATTITUDES AND PERCEPTIONS REGARDING SUCCESSFULLY QUITTING

ES 3.1 There is moderate evidence from Brazil and England to suggest inpatients' perceive NRT as not effective for smoking cessation [**Scherer unpublished, Brazil, MM+; Ratschen 2010b, England, Q++**]; however, there is moderate evidence from the UK and Canadian studies to suggest that some inpatients' perceived NRT to be the most beneficial intervention to help them quit smoking [**Dickens 2005, UK, S+; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+**]. There is moderate evidence from England to suggest some inpatients would prefer not to take further medications than those they are already taking for their mental illness [**Ratschen 2010b, England, Q++**].

ES 3.2 There is moderate evidence from Australia to suggest outpatients perceived the cost was a barrier to using NRT for smoking cessation [**Lawn 2002, Australia, Q++**]; and moderate evidence from England to suggest outpatients were not aware that NRT could be received on prescription and so would have been free for those entitled to free prescriptions [**Edmonds 2007, England, Q++**].

ES 3.3 There is moderate evidence from England to suggest that outpatients perceived the group format for behavioural therapy would not be as effective as using an individual (one-to-one) format **[Edmonds 2007, England, Q++]**.

ES 3.4 There is moderate evidence from England to suggest that inpatients perceived providing smoking cessation support in a hospital inpatient setting would not be the most suitable environment **[Ratschen 2010b, England, Q++]**.

ES 3.5 There is moderate evidence to suggest outpatients would have found the option of using behavioural support interventions useful during their quit attempts **[Dickerson 2011, USA, Q+; Edmonds 2007, England, Q++]**.

ES 3.6 There is moderate evidence from England and the USA to suggest outpatients who had successfully quit perceived the following as important facilitators to successfully quitting: i) being able to dictate how many sessions of behavioural support they received **[Edmonds 2007, England, Q++]**, ii) the option to have the support in an informal and non-clinical environment **[Edmonds 2007, England, Q++]**, iii) receiving cessation support that is tailored to their needs as patients with mental illness **[Edmonds 2007, England, Q++]**, and iv) having the support involve either one or more persons with a history of mental illness who had successfully quit smoking **[Dickerson 2011, USA, Q+; Morris 2009, USA, Q+]**.

ES 3.7 There is moderate evidence from England and the USA to suggest that outpatients perceive having a supportive smoking cessation advisor is an important facilitator to successfully quitting **[Edmonds 2007, England, Q++; Morris 2009, USA, Q+]**. In particular, they described the importance that the smoking cessation advisor should i) take a non-judgmental approach to quitting **[Edmonds 2007, England, Q++]**, whilst being able to maintain a positive expectation in the patient's ability to quit smoking **[Morris 2009, USA, Q+]**, ii) act as an advocate during the quit attempt **[Edmonds 2007, England, Q++]**, and iii) have a good knowledge of mental health problems, and how smoking and quitting can impact on their mental health **[Edmonds 2007, England, Q++]**.

ES 3.8 There is moderate evidence from Canada and the USA to suggest outpatients perceive monetary incentives could be an effective intervention for smoking cessation **[Goldberg 1996, Canada, MM++; Kelly 2010, USA, CC-]**.

ES 3.9 There is moderate evidence to suggest some inpatients' and outpatients' perceive they would find it easier to achieve success if their goal was to cut down on their smoking rather than aiming for complete smoking cessation **[Lawn 2002, Australia, Q++; Ratschen 2010b, England, Q++]**.

ES 3.10 There is weak evidence to suggest inpatients' and outpatients' perceived quitting smoking resulted an improvement in communication with others and in forming new peer groups **[Edmonds 2007, UK, ++; Mikhailovich 2008, Australia, MM-]**.

Applicability: The evidence has direct applicability to the current UK settings and/or practices. Three of the studies were conducted in the UK **[Dickens 2005, England, S+; Edmonds 2007, England, Q++; Ratschen 2010b, England, Q++]**, and a further two studies were conducted in a country which was

deemed to have a similar applicability to the UK setting [Lawn 2002, Australia, Q++; Mikhailovich 2008, Australia, MM-].

*Question 1b. What are the views (knowledge, attitudes, and beliefs) of the service providers within the NHS stop smoking services and mental health staff within hospitals, outpatient clinics and the community, including intensive services in psychiatric units and secure hospitals?*

## EVIDENCE STATEMENTS

### STAFF ATTITUDES AND BELIEFS REGARDING SMOKING IN PATIENTS

ES 4.1 There is strong evidence to suggest that clinical and non-clinical staff mental health staff in inpatient and outpatient settings believe tobacco use is a personal choice of the patient [Ashton 2010, Australia, S+; Dickens 2004, England, S+; Essenmacher 2008, USA, MM+; Lawn 2004, Australia, Q++; Lawn 2006, Australia, Q++; Williams 2009, USA, S+]. There is moderate evidence to suggest ward staff in inpatient and outpatient settings perceived that patients experience enjoyment from smoking and use cigarettes as a coping mechanism, and as a means of self-medication to control mental illness symptoms [Ratschen 2009b, England, Q+; Lawn 2006, Australia, Q++]. There is moderate evidence to suggest that ward staff and mental health administrators in inpatient and outpatient settings perceive cigarettes to fulfill an especially important function in the lives of patients with mental illness [Morris 2009, USA +; Ratschen 2009a, England, S++].

ES 4.2 There is strong evidence from Australia and the USA to suggest nursing and mental health ward staff, and mental health administrators perceive cigarettes are used as a form of currency or means of control to achieve compliance in inpatients with mental health conditions [Lawn 2004, Australia, Q++; Lawn 2006, Australia, Q++; Morris 2009, USA, Q+]; and there is strong evidence to suggest nursing and ward staff and unit administrators perceive cigarettes are used to develop a rapport with inpatients [Lawn 2004, Australia, Q++; Wye 2010, Australia, S++].

ES 4.3 There is strong evidence from Australia and England to suggest nursing and mental health ward staff from predominately inpatient settings believe allowing patients to continue to smoke in hospital, as opposed to withdrawing the provision through banning smoking, will reduce the likelihood of aggression and violence, thereby ensuring a smoother running of an inpatient setting [Lawn 2004, Australia, Q++; Lawn 2006; Australia, Q++; Stubbs 2004, England, S+].

Applicability: Most of the evidence has direct applicability to the current UK settings and/or practices. Four studies were conducted in the UK [Dickens 2004, England, S+; Ratschen 2009a, England, S++; Ratschen 2009b, England, Q+; Stubbs 2004, England, S+], and a further four studies were conducted in countries which were deemed to have similar applicability to that of the UK setting [Lawn 2006, Australia, Q++; Ashton 2010, Australia, S+; Lawn 2004, Australia, Q++; Wye 2010, Australia, S++].

### STAFF ATTITUDES TOWARDS SMOKING CESSATION IN PATIENTS

ES 5.1 There is strong evidence to suggest that psychiatrists and nursing staff members and mental health managers from inpatient and outpatient settings have the misconception that patients with mental health conditions are unable to stop smoking [Edmonds 2007, England, Q++; Lawn 2004, Australia, Q++; Morris 2009, USA, Q+; Price 2007a, USA, S-; Price 2007b, USA, S+; Sharp 2009, USA, S+; Stubbs 2004, England, S+; Wye 2010, Australia, S++].

ES 5.2 Despite the evidence that staff believe patients with mental health conditions are unable to stop smoking, there is strong evidence to suggest that clinical and non-clinical mental health staff from inpatient and outpatient settings feel patients' smoking should be addressed [Ashton 2010, Australia, S+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+; Weinberger 2008, USA, S-], and moderate evidence that they should have the option to stop smoking if they so wished [Ashton 2010, Australia, S+]. There is moderate evidence to suggest that some ward staff, psychiatrists and general practitioners, and mental health administrators from inpatient and outpatient settings actively discourage patients from quitting [Lubman 2006, Australia, S-; Morris 2009, USA, Q+; Ratschen 2009b, England, Q+].

ES 5.3 There is strong evidence to suggest that the smoking status of nurses, ward staff and non-clinical staff predominately from inpatient settings is a barrier to providing and supporting smoking cessation, where smokers are more likely to have negative views about smoking cessation and reduction [Dickens 2004, England, +; Edmonds 2007, England, Q++; Essenmacher 2008, USA, MM+; Lawn 2004, Australia, Q++; Prochaska 2005, USA, S+; Sarna 2009, USA, S-]. Additionally, there is weak evidence to suggest mental health administrators from outpatient settings perceive the overt use of tobacco by staff members was a barrier to patients' quitting smoking [Morris 2009, USA, Q+]. Furthermore, there was weak evidence to suggest clinical and non-clinical staff perceived that smoking cessation support for staff members to assist them to quit smoking should be provided in inpatient settings [Essenmacher 2008, USA, MM+].

ES 5.4 The evidence is mixed regarding the beliefs of whether staff thought providing smoking cessation was part of their role, with strong evidence from four studies to suggest that the majority of psychiatrists and clinical and non-clinical mental health workers from inpatient and outpatient settings did not feel that providing smoking cessation support was part of their role [Ashton 2010, Australia, S+; Essenmacher 2008, USA, MM+; Price 2007b, USA, S+; Ratschen 2009a, England, S++]. However, there is weak evidence from one study of psychiatrists and practice nurses from inpatient and outpatient settings to suggest it should be part of their role [Williams 2009, USA, S+]. Furthermore, there is weak evidence to suggest community based psychiatrists perceived patients had a preoccupation with other health or medical complaint, and thus smoking cessation would not be a priority for patients [Price 2007a, USA, S-; Price 2007b, USA, S+].

ES 5.5 There is moderate evidence to suggest that clinical and non-clinical mental health staff from inpatient settings perceive quitting smoking would have a detrimental effect on the mental health symptoms of the patient [Dickens 2004, England, S+; Lawn 2004, Australia, Q++; Scherer unpublished, Brazil, MM+; Sidani 2011, USA, S+; Stubbs 2004, England, S+].

ES 5.6 There is very weak evidence from the USA to suggest that mental health professionals perceive the impact of smoking cessation on the effectiveness of medical therapy for mental

illnesses is a barrier to implementing smoking cessation support in patients (setting unclear) [Landow 1995, USA, S-].

Applicability: Most of the evidence has direct applicability to the current UK settings and/or practices. Five studies were conducted in the UK [Dickens 2004, England, S+; Edmonds 2007, England, Q++; Ratschen 2009a, England, S++; Ratschen 2009b, England, Q+; Stubbs 2004, England, S+], and a further five studies were conducted in countries which were deemed to have similar applicability to that of the UK setting [Ashton 2010, Australia, S+; O'Donovan 2009, Republic of Ireland, S+; Lawn 2004, Australia, Q++; Lubman 2006, Australia, S-; Wye 2010, Australia, S++].

#### PERCEIVED BARRIERS AND FACILITATORS TO QUITTING IN PATIENTS

ES 6.1 There is moderate evidence to suggest clinical mental health staff and administrators from inpatient and outpatient settings perceived boredom, increased stress, tobacco dependence, and a lack of motivation as barriers to quitting smoking in patients with mental illness [Ashton 2010, Australia, S+; Morris 2009, USA, Q+; Sharp 2009, USA, S+].

ES 6.2 There is moderate evidence to suggest ward staff from an inpatient setting thought a lack of activities was a barrier for patients' quitting smoking [Lawn 2004, Australia, Q++; Ratschen 2009b, England, Q+], and there was weak evidence to suggest that clinical and non-clinical staff from an inpatient setting perceived that introducing meaningful activities would act as a facilitator for smoking cessation [Essenmacher 2008, USA, MM+].

ES 6.3 There is moderate evidence to suggest mental health staff and administrators from inpatient and outpatient settings thought social isolation was a barrier for patient's quitting smoking [Ashton 2010, Australia, S+; Morris 2009, USA, Q+].

ES 6.4 There is recent evidence to suggest that factors related to motivation and attention can pose barriers to engaging with and retaining particularly inpatients in a tobacco dependence service [Parker 2012, England, MM+].

Applicability: The majority of the evidence has direct applicability to the current UK settings and/or practices. Two studies were conducted in the UK [Parker 2012, England, MM+; Ratschen 2009b, England, Q+], and a further two studies were conducted in a country which was deemed to have similar applicability to that of the UK setting [Ashton 2010, Australia, S+; Lawn 2004, Australia, Q++].

#### STAFF SKILLS AND ABILITIES

ES 7.1 There was strong evidence to suggest that psychiatrists, ward staff, psychiatric nurses and mental health counsellors from inpatient and outpatient settings felt a lack of confidence in providing smoking cessation support to patients with mental health conditions [Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Ratschen 2009a, England, S++; Sharp 2009, USA, S+; Sidani 2011, USA, S+], even though some staff felt knowledgeable regarding the harms of

smoking and stop smoking strategies. There was moderate evidence to suggest education in one-to-one services resulted in mental health professionals from a community setting feeling more confident to provide smoking cessation support to patients with mental health conditions [Edmonds 2007, England, Q++].

ES 7.2 There was strong evidence to suggest that a lack of training during their education and whilst in post was directly responsible for the lack of preparedness that clinical and non-clinical staff from inpatient and outpatient settings felt towards implementing smoking cessation strategies [Essenmacher 2008, USA, MM+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Secker-Walker 1994, USA, S+; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+; Zvolensky 2005, USA, S-].

ES 7.3 There was moderate evidence from one large UK survey to suggest clinical mental health professionals from an inpatient setting had a lack of knowledge regarding the prevalence of smoking and tobacco addiction in patients with mental illness, and half of the respondents lacked any formal training in smoking cessation [Ratschen 2009a, England, S++].

ES 7.4 There was strong evidence to suggest that mental health professionals and administrators from inpatient and outpatient settings described that more training in smoking cessation would be helpful [Edmonds 2007, England, Q++; Morris 2009, USA, Q+; O'Donovan 2009, Republic of Ireland, S+], in particular it was suggested that the training should be located onsite using user-friendly, manualised tools and should contain information regarding how best to approach mental health patients, the harms of smoking versus the potential benefits of symptom control [Morris 2009, USA, Q+], and the impact smoking reduction and cessation can have on some medications [Ratschen 2009b, England, Q+]. There was moderate evidence to suggest including the treatment of nicotine dependence, with relevant clinical experiences (such as leading smoking cessation groups) in the curriculum of residency programmes would facilitate providing smoking cessation support for patients with mental health conditions [Prochaska 2006, USA, S+]. Additionally, there was weak evidence to suggest that mental health administrator staff perceived a positive expectation of success at quitting would be an essential component of a successful smoking cessation training package [Morris 2009, USA, Q+].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Three studies were conducted in the UK [Edmonds 2007, England, Q++; Ratschen 2009a, England, S++; Ratschen 2009b, England, Q+], and a further two studies were conducted in countries which were deemed to have similar applicability to that of the UK setting [O'Donovan 2009, Republic of Ireland, S+; Wye 2010, Australia, S++].

#### STAFF PERCEPTIONS OF SYSTEMS AND POLICIES

ES 8.1 There is strong evidence to suggest clinical and non-clinical mental health professionals and administrators predominately from outpatient settings perceive the lack of prioritising smoking cessation support either in the mental health service or as part of the staff's workload was a major barrier to offering stop smoking support [Edmonds 2007, England, Q++; Morris 2009, USA, Q+; Price 2007b, USA, S+; Prochaska 2006, USA, S+; Sharp 2009, USA, S+; Williams 2009, USA, S+].

ES 8.2 There is weak evidence to suggest that service managers from outpatient settings perceived the lack of setting targets for treating patients with mental health conditions within services in the UK is a barrier to delivering stop smoking support to these patients **[McNally 2010, England, MM+]**.

ES 8.3 There is strong evidence to suggest that clinical and non-clinical mental health professionals from inpatient and outpatient settings perceive that they are not able to dedicate sufficient time to provide smoking cessation support during their role due to conflicting priorities **[Ashton 2010, Australia, S+; Edmonds 2007, England, Q++; Essenmacher 2008, USA, MM+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Price 2007b, USA, S+; Ratschen 2009a, England, S++; Sidani 2011, USA, S+; Williams 2009, USA, S+]**.

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Three studies were conducted in the UK **[Edmonds 2007, England, Q++; McNally 2010, England, MM+; Ratschen 2009a, England, S++]**, and a further two studies were conducted in countries which were deemed to have similar applicability to that of the UK setting **[Ashton 2010, Australia, S+; O'Donovan 2009, Republic of Ireland, S+]**.

#### STAFF PERCEPTIONS REGARDING INTERVENTIONS FOR SMOKING CESSATION IN PATIENTS

ES 9.1 There is strong evidence from the USA and Brazil to suggest that mental health service staff and psychiatrists from inpatient and outpatient settings perceived NRT was not effective in mental health populations for smoking cessation **[Morris 2009, USA, Q+; Price 2007b, USA, S+; Scherer unpublished, Brazil MM+; Sidani 2011, USA, S+]**. There is weak evidence from one USA study to suggest that community based psychiatrists considered the safety of NRT use in adolescents and children with mental health conditions was a major barrier to using NRT for smoking cessation **[Price 2007b, USA, S+]**. There was moderate evidence from England to suggest non-medical inpatient staff were more likely to, incorrectly, believe addiction to NRT was common, compared to medical inpatient staff **[Ratschen 2009a, England, S++]**. Finally, there is recent evidence to suggest that staff had concerns regarding the 'harmful effect' and expense to the Trust of NRT **[Parker 2012, England, MM+]**.

ES 9.2 There is weak evidence from the USA to suggest community based psychiatrists were not prescribing NRT in their service due to their perception that smokers with mental health conditions would not comply with NRT **[Price 2007a, USA, S-; Price 2007b, USA, S+]**, and moderate evidence from England to suggest it is because inpatient mental health staff believed NRT interfered with antipsychotic medications **[Ratschen 2009a, England, S++]**.

ES 9.3 There is mixed weak evidence regarding whether clinical mental health staff's lack of awareness of smoking cessation services was a barrier to providing smoking cessation support in patients with mental health conditions in inpatient and outpatient settings **[Williams 2011, Review, - ; Price 2007a, USA, S-; Weinberger 2008, USA, S-]**.

ES 9.4 There is strong evidence from US studies to suggest that clinical mental health staff and administrators predominately from outpatient settings thought a major barrier to providing smoking cessation support in patients with mental health conditions was the lack of resources and re-



imbursement for smoking cessation interventions from the state [Morris 2009, USA, Q+; Price 2007b, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+].

ES 9.5 There is moderate evidence to suggest that nurses and mental health professionals predominately from inpatient settings perceive that the patients had a lack of information and support relating to smoking cessation support [Ashton 2010, Australia, S+; Dickens 2004, England, S+], and addressing this would be a facilitator for smoking cessation and reduction [Ashton 2010, Australia, S+; Ratschen 2009b, England, Q+]. Additionally, there is very weak evidence to suggest that a major barrier to accessing smoking cessation services was a lack of access to a telephone or internet [Williams 2011, Review, -].

ES 9.6 There is moderate evidence from Australia to suggest that the following factors were the psychiatric unit managers perceptions for whether a patient received treatment for nicotine dependence: i) whether the patient requested assistance to quit, ii) whether the patient was receptive to receiving interventions for smoking cessation, iii) whether an improvement in the patient's health would be seen with quitting , iv) whether the interventions were perceived to be effective, and v) the availability of NRT on the psychiatric unit [Wye 2010, Australia, S++]. There is moderate evidence from England to suggest that inpatient mental health staff perceive NRT products and behavioural support for smoking cessation and reduction were readily available in their inpatients mental health setting [Ratschen 2009a, England, S++].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Three studies were conducted in the UK [Dickens 2004, England, S+; Parker 2012, England, MM+; Ratschen 2009a, England, S++], and two studies were conducted in a country which was deemed to have similar applicability to that of the UK setting [Ashton 2010, Australia, S+; Wye 2010, Australia, S++]. However, the evidence relating to the lack of resources and re-imbursement as a barrier for providing smoking cessation interventions is likely not to be applicable to the UK setting and/or practices.

*Subsidiary question: Are there differences in acceptability of smoking cessation and temporary abstinence interventions by deliverer, setting, timing (or point in the care pathway), frequency, duration, and severity of dependence?*

#### EVIDENCE STATEMENT

ES 10.1 No evidence was identified which assessed the differences in acceptability of smoking cessation and temporary abstinence interventions by deliverer, timing (or point in care pathway), frequency, duration or severity of dependence.

*Subsidiary question: Are there differences in acceptability of smoking cessation and temporary abstinence interventions by mental health diagnosis, gender, sexual orientation, age, ethnicity,*

*religion, socioeconomic status, disability, and population of interest (including patients, household members, visitors and staff)?*

#### EVIDENCE STATEMENTS

ES 11.1 No evidence was identified which assessed the differences in acceptability of smoking cessation and temporary abstinence interventions by gender, sexual orientation, ethnicity, religion, socioeconomic status or disability.

ES 11.2 There is moderate evidence from Australia to suggest outpatients with schizophrenia or depression use cigarettes to overcome their fears of mental illness relapse [**Lawn 2002, Australia, Q++**]. Outpatients with schizophrenia exhibit overt behaviours to ensure their cigarette supply continues (for example, stealing cigarettes), whereas outpatients with depression appeared to have better coping strategies to ensure their supply lasted until they have sufficient funds to purchase more. Outpatients with personality disorders have an unconscious need to smoke when they are unwell and were shown to exhibit risky behaviours to ensure their supply continues [**Lawn 2002, Australia, Q++**].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. None of the studies were conducted in the UK; however, one study was conducted in a country which was deemed to have similar applicability to that of the UK setting [**Lawn 2002, Australia, Q++**].

*Question 2. Which strategies/approaches are effective in encouraging mental health care professionals to record smoking status?*

#### EVIDENCE STATEMENTS

ES 12.1 There is mixed evidence regarding whether patients are regularly asked about their smoking behaviour, with moderate evidence from the USA to suggest mental health staff from inpatient and outpatient settings regularly ask the smoking status of patients with mental illness [**Price 2007a, USA, S-; Price 2007b, USA, S+; Sarna 2009, USA, S-; Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+**], but moderate evidence from Australia to suggest it is at the discretion of the mental health staff member in an inpatient setting whether they ask the smoking behaviour of their patients [**Wye 2009, Australia, S++**]. Additionally, there is moderate evidence from the USA to suggest a substantial proportion of mental health staff predominately from outpatient settings never document the smoking status of patients with mental illness [**Price 2007a, USA, S-; Price 2007b, USA, S+; Sidani 2011, USA, S+; Zvolensky 2005, USA, S+**], but moderate evidence to suggest it is at the discretion of the mental health staff member in an inpatient setting whether they document the smoking behaviour of their patients [**Wye 2009, Australia, S++**]. There is recent evidence from the UK to suggest that whilst measures may be in place for inpatients to record and provide treatment for smoking, this may not be the case for community based patients [**Parker 2012, England, MM+**].

ES 12.2 There is moderate evidence from the USA to suggest routine systems are used to identify patients who smoked predominately from outpatient settings, including consulting the patients' chart [**Secker-Walker 1994, USA, S+; Zvolensky 2005, USA, S-**].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Only one of the studies was conducted in the UK [**Parker 2012, England, MM+**] and one study was conducted in a country which was deemed to be similar to that of the UK setting [**Wye 2009, Australia, S++**].

*Question 3a. Which strategies/approaches used by secondary care mental health services are effective for: Providing people from the population of interest with smoking cessation information, advice and support?*

#### EVIDENCE STATEMENTS

ES 13.1 There is moderate evidence to suggest that psychiatrists and psychiatric nurses based in the US from inpatient and outpatient settings regularly provide their patients with smoking cessation advice [**Price 2007a, USA, S-; Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+**]; however, low rates of providing advice on smoking cessation were seen in a number of studies [**Ashton 2010, USA, S+; Essenmacher 2008, USA, S+; Parker 2012, England, MM+; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Sarna 2009, USA, S-; Secker-Walker 1994, USA, S+; Sidani 2011, USA, S+; Solty 2009, Canada, S+**].

ES 13.2 There is weak evidence from the USA to suggest psychiatric nurses, psychiatry residents, and medical health counsellors predominately from inpatient settings infrequently followed up regarding smoking cessation support for their patients [**Prochaska 2005, USA, S+; Sarna 2009, USA, S-; Sidani 2011, USA, S+**].

ES 13.3 There is weak evidence from the USA to suggest inpatient and outpatient based psychiatrists regularly discuss pharmacotherapies [**Tong 2010, USA, S+**], and community based psychiatrists infrequently prescribe smoking cessation pharmacotherapies [**Price 2007a, USA, S+**].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Only two of the studies were conducted in the UK [**Parker 2012, England, MM+; Ratschen 2010b, England, Q++**], and no further studies were conducted in a country which was deemed to be similar to that of the UK setting.

*Question 3b. Which strategies/approaches used by secondary care mental health services are effective for: Referring people from the population of interest to stop smoking or hospital based stop smoking services?*

#### EVIDENCE STATEMENTS

ES 14. 1 There is moderate evidence to suggest that in the US approximately half of mental health staff from inpatient and outpatient settings refer their patients to stop smoking services [**Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+**], and weak evidence from the USA to suggest that inpatient and outpatient based psychiatric nurses are more likely to refer their patients if they are more highly motivated, valued tobacco dependence interventions, and perceived their patients to be more motivated to stop smoking [**Sharp 2009, USA, S+**].

ES 14. 2 There is recent evidence from the UK to suggest that virtually no inpatients are referred to a NHS Stop smoking Service [**Parker 2012, England, MM+**], and NHS Stop Smoking Services never or rarely receive referrals from inpatients with mental illnesses [**McNally 2010, England, MM+**].

ES 14. 3 There is weak evidence to suggest the mental health status of clients attending stop smoking services in the UK is not known [**McNally 2010, England, MM+**].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Two of the included studies were conducted in the UK [**McNally 2010, England, MM+; Parker 2012, England, MM+**].

*Question 4. How can community, primary, and secondary care mental health care providers collaborate more effectively to integrate smoking cessation support within care pathways?*

#### EVIDENCE STATEMENTS

ES 15. 1 There was weak evidence from one UK study to suggest that ward staff perceived smoking cessation should be integrated into the inpatient based health care plan of the patient, and strong collaborations should be formed between key workers and doctors during the inpatient stay, and between inpatient and community teams [**Ratschen 2009b, England, Q+**].

ES 15. 2 There was weak evidence from one UK study to suggest that ward staff perceived smoking cessation and smoking reduction should be tailored to the needs of the inpatients with mental illness, with support being provided through local stop smoking services [**Ratschen 2009b, England, Q+**].

ES 15.3 There was weak evidence from the USA to suggest that community based mental health administrator staff perceived a useful facilitator for implementing smoking cessation across practices would be to first adopt smoking cessation support only in the practices in which there was a strong interest in smoking cessation, so that an early success could be demonstrated; rather than enforcing all practices to have smoking cessation support [**Morris 2009, USA, Q+**].

ES15.4 There was recent evidence from the UK to suggest that implementing a tailored tobacco dependence service in the UK's largest mental health trust through the development of an

integrated smoking care pathway, whilst offering flexible support for smoking cessation and reduction programmes through the use of dedicated staff to provide the service, resulted in a modest service uptake rate overall. However, in the inpatient setting, where smokers can be easily identified due to smoking status recording being mandatory, almost a quarter of all smokers engaged with the service.

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Two studies were conducted in a UK setting [**Parker 2012, England, MM+**; **Ratschen 2009b, England, Q+**], therefore the evidence from these studies is likely to be directly applicable.

## DISCUSSION

This review of the barriers and facilitators of smoking cessation in secondary mental health services comprises of a large body of evidence. Forty-six primary evidence studies, two discussion pieces, and one critical review were included in this review. The majority of the studies assessed the views, attitudes and beliefs of staff members, with fewer focusing on the views of patients, and only one study was identified which focused on the views of relatives and main caregivers. The majority of studies were conducted in the United States, with nine studies from the UK. The methodological quality of the studies was very variable, with few studies being awarded the highest score.

Overall the evidence suggests:

- Inpatients' and outpatients' perceive the following are reasons for smoking:
  - To gain autonomy
  - Nicotine addiction
  - Pleasure and enjoyment
  - Relaxation and to calm down
  - Sense of companionship and form of social pastime
  - Self-medication to cope with symptoms of mental illness, with patients' fearing quitting might result in deterioration.
- Patients' perceive cigarettes are used as a mechanism of control in inpatient settings.
- Inpatients' and outpatients' perceive nicotine addiction, lack of motivation, stress, severity of mental health symptoms, smoking in peers, family and staff, are barriers to making a quit attempt. Additionally, outpatients perceive a lack of knowledge regarding which strategies are effective for smoking cessation, and the negative views of staff, are important barriers to making a quit attempt.
- Inpatients' and outpatients' perceive worrying about their physical health, influence of peer, family and social pressures to quit, high cost of cigarettes, are facilitators to quitting smoking, with some outpatients expressing that they would need to experience a negative health effect before making a quit attempt. However, some inpatients' and outpatients' perceive there is little point in quitting as it would not have a direct effect on recovery from their mental illness, improve quality of life or health.

## Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

- Mixed beliefs were expressed by inpatients' regarding whether NRT was effective for smoking cessation; and some inpatients' expressed that they would prefer to not take further medications beyond those already taking for their mental illness. Additionally, cost of NRT was a barrier to using NRT in outpatients; however, patients were not aware that NRT could be acquired on prescription and so would have been free to those entitled to free prescriptions.
- Outpatients' perceived the offer of behavioural support would be useful during their quit attempt, however, they perceived group behavioural therapy would not be as effective as individual behavioural therapy.
- Outpatients perceived the following to be important facilitators to successfully quitting using behavioural support: being able to dictate how many sessions were received, ability to have support offered in informal and non-clinical setting, receiving support tailored to the needs of patients with mental illness, and involving one or more persons with a history of mental illness who had successfully quit smoking.
- Outpatients' perceived the smoking cessation advisor should be supportive, take a non-judgmental approach to quitting, maintain a positive expectation in the patients' ability to quit, act as an advocate during the quit attempt, and have a good knowledge of mental health problems, and how smoking and quitting can impact on their mental health.
- Inpatients' perceived that an inpatient setting was not a suitable environment for initiating smoking cessation support.
- Outpatients' perceive monetary incentives could be an effective intervention for smoking cessation. Inpatients' and outpatients' perceived they would find it easier if the goal was to cut down rather than quit.
  
- Staff in general believe that smoking is a patient choice and they perceive benefits to smoking such as patients enjoying smoking, using smoking as a coping mechanism, and as a means of self-medication to control mental illness symptoms. They believe that allowing patients to smoke reduces the likelihood of aggression and violence, thereby ensuring a smoother running of inpatient settings. However staff also perceived cigarettes were used as a form of currency or means of control to achieve compliance and develop a rapport with patients.
  
- Staff, from inpatient and outpatient settings, have the misconception that patients with mental health conditions are not able to stop smoking; with some staff from inpatient and outpatient settings actively discouraging patients from quitting. However, other staff, from inpatient and outpatient settings, felt that the patients should have their smoking addressed.
- The smoking status of the staff, predominately from inpatient settings, was a barrier to providing smoking cessation support, where smokers were more likely to have negative views about smoking cessation and reduction. The overt use of tobacco by staff members was perceived as a barrier to patients' quitting smoking.

## Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

- There were mixed beliefs regarding whether staff thought providing smoking cessation was part of their role, with the majority of staff from inpatient and outpatient settings feeling that it was not part of their role.
- Community based psychiatrists perceived patients had a preoccupation with other health or medical complaints, and thus smoking cessation would not be a priority for patients.
- Staff from inpatient settings perceived quitting smoking would have a detrimental effect on the mental health symptoms of the patient, and mental health professionals were worried about the effect of quitting smoking on the effectiveness of the patients' medication for mental illnesses.
- Staff perceived barriers to quitting in patients are boredom; increased stress; tobacco dependence; a lack of motivation; social isolation; and a lack of alternative activities were barriers to quitting smoking in patients with mental illness.
- Difficulties in engaging with and retaining patients in a tobacco dependence service were sometimes encountered and ascribed to factors relating to motivation and attention.
- Many staff lacked formal training in smoking cessation. Staff felt a lack of confidence in providing smoking cessation support to patients with mental health conditions resulting from a lack of training during their education and whilst in post, with education in behavioural support increasing confidence. Furthermore, staff described wanting more training in smoking cessation.
- Staff, predominately from outpatient settings, perceived the lack of prioritising smoking cessation support either in the mental health service or as part of the staff's workload, and the lack of setting targets for treating patients, were major barriers to offering stop smoking support.
- Staff, from inpatient and outpatient settings, perceived that they are not able to dedicate sufficient time to provide smoking cessation support during their role due to conflicting priorities.
- Staff, from inpatient and outpatient settings, perceived NRT was not effective in mental health populations for smoking cessation. Community based psychiatrists considered the safety of NRT use in adolescents and children with mental health conditions was a major barrier to using NRT for smoking cessation. Compliance with medication regimen, and a worry regarding whether NRT interfered with antipsychotic medications, were barriers to using NRT. Smoking cessation advisors reported staff had concerns regarding the 'harmful effect' and expense to the Trust of NRT
- Staff, predominately from outpatient settings in the US, thought a major barrier to providing smoking cessation support in patients with mental health conditions was the lack of resources and re-imburement for smoking cessation interventions from the state.

## Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

- Staff, predominately from inpatient settings, perceived patients had a lack of information and support relating to smoking cessation support.
- Staff from the US, based on inpatient and outpatient settings, regularly asked the smoking status of patients with mental illness. Staff described routine systems were used to identify patients who smoked predominately from outpatient settings, including consulting the patients' chart; however, a substantial proportion of staff, predominately from outpatient settings, never document the smoking status of patients with mental illness.
- An audit from the UK identified whilst recording of smoking status was mandatory for inpatients, there was no such requirement for community based patients in a large Trust
- Rates of providing smoking cessation advice to patients in inpatient and outpatient settings varied considerably between studies; additionally, low rates for follow-up contacts relating to smoking cessation for their patients following support were seen in inpatient settings.
- Approximately half of staff from the US from inpatient and outpatient settings referred their patients to stop smoking services. However, stop smoking services in the UK never or rarely receive referrals from inpatients with mental illnesses. Additionally, the mental health status of clients attending stop smoking services in the UK is not known. An audit from the UK identified virtually no inpatients were referred to a NHS Stop Smoking Service.
- Staff perceived smoking cessation should be integrated into the inpatient based health care plan of the patient, and strong collaborations should be formed between key workers and doctors during the inpatient stay, and between inpatient and community teams. Additionally, smoking cessation and smoking reduction should be tailored to the needs of the inpatients with mental illness, with support being provided through local stop smoking services.
- Staff perceived smoking cessation support should be adopted first in practices in which there was a strong interest in smoking cessation.
- Implementing a tailored tobacco dependence service in the UK's largest mental health trust through the development of an integrated smoking care pathway, whilst offering flexible support for smoking cessation and reduction programmes through the use of dedicated staff to provide the service, resulted in a modest service uptake rate overall. However, in the inpatient setting, where smokers can be easily identified due to smoking status recording being mandatory, almost a quarter of all smokers engaged with the service.

This review further noted that no or very few studies were identified which assessed:



## Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

- The views, attitudes, and beliefs of household members and relatives of patients with mental illness regarding barriers of, and facilitators for, smoking cessation
- Views, attitudes, and beliefs, regarding barriers of, and facilitators for, using interventions for temporary abstinence
- Whether there were differences in views, attitudes and beliefs by age, gender, socioeconomic status, sexual orientation, disability, religion, and severity of dependence.

This review highlights the urgent need for further high quality research to be performed to assess the views, attitudes and beliefs of patients, staff members and relatives regarding whether the acceptability of interventions for temporary abstinence.

## **ABBREVIATIONS USED**

<b>CC</b>	Case-control study design
<b>MM</b>	Mixed method study design
<b>PE</b>	Programme Evaluation
<b>Q</b>	Qualitative study design
<b>S</b>	Survey or questionnaire design

## INTRODUCTION AND BACKGROUND

### SIGNIFICANCE OF SMOKING FOR MENTAL HEALTH

The significance of tobacco smoking in the context of severe mental illness is substantial. Patients diagnosed with severe mental illness are up to three times more likely to be smokers than the general population, with smoking prevalence reaching figures of up to 70% for certain sub groups, such as inpatients, and patients with schizophrenia [1]. Smokers with mental illness have also been found to display patterns of heavy smoking and severe nicotine dependence [2], as well as higher nicotine and cotinine levels that are attributable to increased nicotine intake per cigarette [3]. The disproportionately high rates of smoking have been identified as causes of the increased risk of tobacco-related morbidity and excess mortality in this population (with cancers, respiratory and cardiovascular disease prevalence being high) [4], thus constituting a major contributor to health inequalities in this population. The importance of addressing the issue is increasingly being recognised and has been acknowledged in a range of seminal documents, such as the recent governmental tobacco control plan *Healthy lives, healthy people* (2011), and the mental health strategy plan *No health without mental health* (2011).

The underlying reasons for the strong relationship between smoking and mental illness are complex and vary across diagnoses. Factors contributing to increased smoking have been found to be neurobiological, psychosocial, and genetic in nature [5, 6]. Nicotine interacts with several neurotransmitter systems in the brain and mediates the release of neurotransmitters such as dopamine, noradrenaline and serotonin, which affect mood, cognitive functioning, attention, and memory. Self-medication for and self-regulation of symptoms of mental illness has therefore been proposed as a potential explanation for frequent and heavy smoking among individuals with mental illness [4]. It has also been emphasised that smoking often constitutes a means of social interaction, reducing social inhibition and isolation frequently encountered in this population [5]. Smoking is also relevant from a clinical perspective, as hydrocarbon agents in tobacco smoke induce liver enzymes responsible for drug clearance, thus affecting drug levels of antipsychotic medication. Patients who smoke consequently require higher doses of medication, as their drug metabolism is accelerated by smoking. Hence, tobacco abstinence or quitting requires monitoring of blood levels of medications such as clozapine, as decelerated clearance can potentially lead to toxicity [6].

### SMOKING IN MENTAL HEALTH SETTINGS: SYSTEMIC ISSUES

Despite the complexities that mark smoking as a matter of particular importance in the context of mental illness, tobacco dependence constitutes a largely neglected issue in mental health settings, with smoking being historically deeply embedded in the culture of treatment environments [7], and clinicians being reluctant to address the issue proactively as an integral part of treatment [8]. While a societal change towards reducing smoking and the exposure to tobacco smoke in public and work places has taken place in the UK over recent years, smoking is still largely condoned across psychiatric settings, and many mental health professionals perceive it as an important coping mechanism for patients [9]. Smoking has, furthermore, transpired to be a frequently used means of reward or punishment in achieving compliance with treatment, and to play an important part in the context of social interaction between patients and staff [10]. Of particular importance in this context

is the smokefree policy that has been implemented in mental health settings in July 2008. Whilst this is a potential avenue towards health protection and promotion in a vulnerable population, it has since been shown that there is cause for concern, as policies appear to be implemented incoherently, with smoking still being facilitated on a regular basis and viewed as the norm rather than the exception [11]. Furthermore, striking deficiencies in clinical staff knowledge with regard to smoking and its links with mental illness, including metabolic interactions with medication and use of pharmacotherapy for smoking cessation, have been identified, which arguably pose challenges to the appropriate support of patient smokers admitted to treatment environments in which their smoking behaviour is likely to change [12].

### **TREATMENT OF SMOKING PATIENTS WITH SEVERE MENTAL ILLNESS**

Contrary to common perception, patients with severe mental illness are frequently willing to quit smoking [13] provided they receive tailored support, though success in quitting appears to be only half of that in the general population [14], and relapse rates are higher [7]. Pharmacological treatment with both NRT and bupropion (the most recent pharmacological treatment, varenicline, is currently being trialed for safety in the psychiatric population), given separately or in combination, has proven effective and well-tolerated in psychiatric populations [15]. Additional cognitive behavioural support in groups, which has been shown to have potentially beneficial outcomes on quitting attempts in the normal population [16], has been integrated into tailored behavioural programmes for patients with severe mental illness successfully [17]. As many mental health patients are severely dependent on tobacco, and typically experience changing levels of motivation to stop smoking depending on their perceived ability to address their addiction in the light of mental resources, it has been proposed that in this population, smoking reduction may be a viable route towards harm reduction and eventual abstinence [18].

However, clear guidance with regard to treatment models, including the integration of tobacco dependence treatment in care pathways and consideration of smokefree policy implementation in treatment settings, is to date missing. In view of the importance of the issue from public health, clinical, economic, sociological, and policy perspectives, this is a shortcoming that should urgently be addressed.

### **AIM OF THE REVIEW**

This systematic review aims to identify the factors that act as barriers or facilitators to implementing smoking cessation and temporary abstinence interventions, including strategies for referring people to stop smoking or hospital/unit based stop smoking services, from the perspectives of users and providers in mental health services.

## RESEARCH QUESTIONS ADDRESSED

The review addressed the following key research questions:

- *What are the barriers and facilitators that affect the delivery of effective interventions, for example the interventions as identified in review 4?*
- *Which strategies/approaches are effective in encouraging mental health care professionals to record smoking status?*
- *Which strategies/approaches used by secondary care mental health services are effective for:*
  - *Providing people from the population of interest with smoking cessation information, advice and support?*
  - *Referring people from the population of interest to stop smoking or hospital based stop smoking services?*
- *How can community, primary, and secondary care mental health care providers collaborate more effectively to integrate smoking cessation support within care pathways?*

Subsidiary questions included:

- *What are the views (knowledge, attitudes, and beliefs) of the populations of interest in mental health services (all patients, service users [including family, carers, and visitors]) who may use smoking cessation or temporary abstinence interventions?*
- *What are the views (knowledge, attitudes, and beliefs) of the service providers within the NHS stop smoking services and mental health staff within hospitals, outpatient clinics and the community, including intensive services in psychiatric units and secure hospitals?*
- *Are there differences in acceptability of smoking cessation and temporary abstinence interventions by deliverer, setting, timing (or point in the care pathway), frequency, duration, and severity of dependence?*
- *Are there differences in acceptability of smoking cessation and temporary abstinence interventions by mental health diagnosis, gender, sexual orientation, age, ethnicity, religion, socioeconomic status, disability, and population of interest (including patients, household members, visitors and staff)?*

## **METHODS**

### **INCLUSION AND EXCLUSION CRITERIA**

#### **TYPES OF STUDY DESIGNS**

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Both qualitative and quantitative evidence from primary studies and systematic review of studies were eligible for inclusion. We considered systematic reviews, trials (controlled and non-controlled), descriptive studies (including questionnaire surveys, and process evaluations), qualitative studies (including, but not restricted to, ethnographies, phenomenologies, and grounded theory studies), and discussion papers or reports. Discussion papers and reports were only used to develop the themes for the analysis, and thus were not used as evidence in the findings of this review unless we were unable to source any additional evidence that supported the theme.

#### **TYPES OF PARTICIPANTS**

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We considered studies which included the following populations of interest of any age who smoke:

- All users of secondary care mental health services, including those who are in the process of being referred to or have recently been discharged from child, adolescent, adult or older people mental health services:
  - In-patient, residential and long-term care for severe mental illness in hospitals, psychiatric and specialist units and secure hospitals
  - Patients who are within the care of specialist community-based multidisciplinary mental health teams
- People who lived in the same household as a mental health service user, such as partners, parents, other family members and carers
- Visitors to secondary care mental health setting who were not receiving treatment or care, such as relatives or friends of patients and service users
- Staff (including support staff, volunteers, agency/locum staff and staff employed by contractors) who worked in secondary care mental health settings, in particular those who had direct contact with patients and service users

#### **PHENOMENA OF INTEREST**

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We considered any barriers or facilitators (including knowledge, attitudes and beliefs) of using or implementing smoking cessation or temporary abstinence approaches. We included any pharmacological, psychological or self-help intervention that aimed to assist with smoking cessation or temporary abstinence. Pharmacological interventions could be administered alone or in combination with other interventions for smoking cessation or temporary abstinence. We also included any approaches used by, or with, mental health professionals/ mental health care providers/ the wider care team to increase recording, identification and/or referral to stop smoking services or mental healthcare-based stop-smoking services. This review considered all relevant contexts in which the phenomena were experienced.

## EXCLUSION CRITERIA

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We did not consider users of primary care services or users of secondary care services, other than mental health services, their parents, carers and other family members, staff working in, and visitors to, secondary care services other than mental health. We did not consider barriers or facilitators of smoking cessation interventions in primary care, medical and surgical care or obstetric care. We also did not consider policy or legislative interventions, or interventions aimed at preventing uptake of tobacco use.

## SEARCH STRATEGY

Sensitive search strategies were developed by an information specialist in conjunction with the research team and peer-reviewed by information specialists at NICE using a combination of controlled vocabulary and free-text terms. The search strategy was initially developed in MEDLINE and was then adapted to meet the syntax and character restrictions of each included database.

The ICD-10 Classification of Mental health and Behavioural Disorders diagnostic criteria was used to refine the populations of interest to aid with searching for relevant disorders. The search strategy focused on the following ICD-10 diagnoses, for each of which we developed detailed search terms as demonstrated in the example of the search strategy:

F00-F09	Organic, including symptomatic, mental disorders
F10-F19	Mental and behavioural disorders due to psychoactive substance use
F20-F29	Schizophrenia, schizotypal and delusional disorders
F30-F39	Mood (affective) disorders
F40-F48	Neurotic, stress-related and somatoform disorders
F50	Eating disorders
F60-F62	Specific personality disorders, Mixed and other personality disorders, Enduring personality changes
F84	Pervasive developmental disorders
F90-F92	Hyperkinetic disorder, Conduct disorder, Mixed disorders of conduct and emotions

In our judgement, the search for specific terms related to the following diagnoses would not yield meaningful outcomes (owing to the fact that the respective populations are highly unlikely to constitute target groups of tobacco related research), therefore we did not to develop detailed search terms for those, but to imply inclusion of these groups through the identification of studies that include populations of 'smokers treated in mental health settings' more generically.

F51-F59        The excluded syndromes refer to nonorganic sleep disorders, sexual dysfunction (not caused by organic disorder or disease), mental and behavioural disorders associated with the puerperium, and abuse of non-dependence-producing substances

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F63-F69        The excluded disorders refer to habit and impulse disorders, gender identity disorders, disorders of sexual preference, and psychological and behavioural disorders associated with sexual development and orientation

F70-F79        The excluded diagnoses refer to mental retardation

F80-F89        The excluded disorders refer to specific developmental disorders of speech and language, scholastic skills, motor function (excluding F84)

F93-F99        The excluded disorders refer to emotional disorders, social functioning, nonorganic enuresis and nonorganic encopresis with onsets specific to childhood, and tic disorders

Literature searches were conducted from 1985 onwards. The full search strategies for each database source can be found in Appendix 1. The following databases were searched:

- AMED (Allied and Complementary Medicine)
- ASSIA (Applied Social Science Index and Abstracts)
- British Nursing Index
- CDC Smoking & Health Resource Library database
- CINAHL (Cumulative Index of Nursing and Allied Health Literature)
- Cochrane Central Register of Controlled Trials
- Cochrane Database of Systematic Reviews (CDSR)
- Cochrane Tobacco Addiction group Specialist Register
- Conference Papers Index (years: 2008-2012)
- Database of Abstracts of Reviews of Effectiveness (DARE; 'other reviews' in CDSR database)
- Database of Promoting Health Effectiveness Reviews (EPPI Centre DoPHER)
- EMBASE
- Health Evidence Canada
- Health Technology Assessment (HTA) database in the CDSR database
- HMIC
- International Bibliography of Social Sciences
- Medline, including Medline in Process
- PsycINFO
- Social Policy and Practice
- Social Science Citation Index and Conference Proceedings Citation Index
- Sociological Abstracts
- Trials Register of Promoting Health Interventions (EPPI Centre TRoPHI)
- UK Clinical Research Network Portfolio Database

The following websites were also searched for research papers relevant to the review questions:

- Smoke free <http://smokefree.nhs.uk>



- NHS Centre for Smoking Cessation and Training <http://www.ncsct.co.uk/>
- Action on Smoking and Health (ASH) <http://www.ash.org.uk>
- Treat tobacco.net <http://www.treattobacco.net/en/index.php>
- Society for Research on Nicotine and Tobacco <http://www.srnt.org>
- International Union against Cancer <http://www.uicc.org>
- WHO Tobacco Free Initiative (TIF) <http://www.who.int/tobacco/en>
- International Tobacco Control Policy Evaluation Project <http://www.itcproject.org>
- Tobacco Harm Reduction <http://www.tobacoharmreduction.org/index.htm>
- Current controlled trials [www.controlled-trials.com](http://www.controlled-trials.com)
- Association for the treatment of tobacco use and dependence (ATTUD) [www.attud.org](http://www.attud.org)
- National Institute on drug abuse- the science of drug abuse and addiction <http://www.nida.nih.gov/nidahome.html>
- NICE <http://www.nice.org.uk/>
- Public health observatories <http://www.apho.org.uk/resource/advanced.aspx>
- Scottish Government <http://www.scotland.gov.uk/topics/research>
- Welsh Assembly Government <http://wales.gov.uk/>
- NHS Evidence <https://www.evidence.nhs.uk/>
- Joseph Rowntree Foundation <http://www.jrf.org.uk/publications>
- UK Centre for Tobacco Control Studies <http://www.ukctcs.org/ukctcs/index.aspx>

We electronically searched the World Conference on Tobacco or Health proceedings in years 2006, 2009 and 2012 (the conference is held every three years) to identify further potentially eligible papers, as this conference is not included in the databases and websites above. We also checked reference lists of included previous reviews to identify further potentially eligible studies. Additionally, we screened the electronic files of papers identified from Reviews 1, 2, 3, 6, and 7 for studies that had potential relevance.

Studies were managed during the review using the EPPI-Centre's online review software EPPI-Reviewer (version 4.0).

## TITLE AND ABSTRACT SCREENING

All records from the searches were uploaded into a database and duplicate records were removed. Where no abstract was available, a web search was first undertaken to locate one; if no abstract could be found, records were screened on title alone and full-text documents were retrieved where there was any doubt.

## Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

To trial the inclusion criteria, a pilot round of screening was conducted on a random selection of 30 document titles and abstracts. Piloting was conducted by three reviewers. A reconciliation meeting was then held to discuss disagreements and suggest changes to the inclusion criteria.

Following the pilot screening, 1,143 records (10%) were double screened. The inter-rater agreement rate for double-screening was 97.7%, which was considered by the project team and NICE to be sufficiently high. As such, the remaining documents were split between two reviewers who independently screened their allocated records. Of the double-screened items, any disagreements were resolved by a third reviewer. Throughout the entire process, the reviewers discussed difficult and ambiguous records to ensure consistency.

The final inclusion criteria are presented below (also see Appendix 2 for detailed guidance and definitions used for each criterion). The criteria were applied in a hierarchical fashion.

- The document must be published during or after 1985
- The document must report on a piece of empirical research
- The title and/or abstract must refer to smoking cessation interventions/ services
- The study (or a component of it) must be conducted in a mental health secondary care setting, or include patients or workers in mental health services, or family/friends/visitors of mental health patients.
- The study design must involve a comparison (e.g., controlled trials, before-and-after) and/or views or process evaluation (e.g., interviews, surveys)

If the study met the above criteria and included evidence on barriers or facilitators (including knowledge, attitudes and beliefs) of using or implementing smoking cessation interventions/ services, it was marked as relevant to Review 5. If the study met the above criteria and evaluated the effectiveness of an intervention, it was marked as relevant to Review 4.

### FULL TEXT SCREENING

Once all of the titles and abstracts were screened, the full-text documents were retrieved for those records marked for inclusion. The retrieved documents were then re-screened on the basis of the detail available in the full-text article by Ms Jayes using a previously piloted screening checklist (Appendix 3). A random selection of a 40% of the full-text documents was double-screened by the Ms Jayes and Dr Leonardi-Bee and Dr Ratschen. Forty-nine articles were double screened based on full text, and we reviewers agreed on 96%, which was deemed sufficiently high. Any disagreements were discussed. Those documents that passed the inclusion criteria on the basis of the full-text screening were included in the review.

## DATA EXTRACTION AND QUALITY ASSESSMENT

Data extraction and appraisal of the quality of the included studies was performed by Ms Jayes, Dr Ratschen and Dr Leonardi-Bee, with a random selection of 10% being double-assessed by Professor McNeill. Data were extracted using previously piloted data extraction forms for which followed the methods as outlined in the methods manual [www.nice.org.uk/phmethods2009](http://www.nice.org.uk/phmethods2009), and PROGRESS-Plus criteria (age, sex, sexual orientation, disability, ethnicity, religion, place of residence, occupation, education, socioeconomic position and social capital) was noted. Any difference in assignment of quality was resolved through discussion. Internal and external validity of the studies was rated using the previously piloted quality appraisal checklists which followed the methods as outlines in the methods manual, with each study being coded as either ++, +, or -. ++ indicated a high quality score for internal and external validity, where the study demonstrated all or most of the checklist criteria had been fulfilled, and where these had not been fulfilled, the conclusions of the study were unlikely to alter, had this been the case. + indicated moderate quality for internal and external validity, where the study demonstrated some of the checklist criteria had been fulfilled, and where they had not been fulfilled, or not adequately described, the conclusions of the study were unlikely to alter. – indicated a low quality score for internal and external validity, where the study demonstrated few or none of the checklist criteria had been fulfilled and the conclusions of the study were likely or very likely to alter, had this been the case. Additional criteria were used to determine the quality of the survey based questionnaire studies, with studies being given higher quality scores if they demonstrated a lack of bias during the selection of sample, a sample size of 100+ participants, response rate of at least 65%, and medium or high overall relevance to the research questions of the review. Composite inter-rater agreement (the per cent agreement) was calculated and reported.

## DATA SYNTHESIS

Preliminary themes and subthemes based on the user and provider perspectives were identified from the included studies, and discussed with members of the team, to determine whether these reflected the spectrum of evidence comprehensively. We also used discussion pieces to develop the themes. Themes of particular relevance to the UK were highlighted. Where possible, data were meta-synthesised to identify findings, group findings into categories on the basis of similarity in meaning, and aggregated to generate synthesised findings. Where we were unable to perform meta-synthesis, we summarised the findings of the individual studies using a narrative approach through listing significant factors and themes. Data were characterised using PROGRESS-Plus, and sensitivity analyses were carried out where enough papers had data relating to specific inequality measures known to be associated with higher prevalence of smoking and those in who smoking cessation and temporary abstinence are known to have differential impacts.

## EVIDENCE TABLES

Evidence tables were completed for each included study.

## EVIDENCE STATEMENTS

Evidence statements based on an aggregated summary of the available evidence were produced, which reflected the strength (quality, quantity and consistency) of the evidence, and statements regarding its applicability were made. The quality of the evidence was categorised as strong (where statements were based on evidence from several high quality studies), moderate (where statements were based on evidence from either one high study, or a mixture of high and lower quality studies), weak (where statements were based on evidence from lower quality studies), or very weak (where statements were based on evidence from individual lower quality studies). Statements were also made where there was a lack of evidence. Statements regarding the applicability of the evidence to the UK setting were also reported and categorised as directly applicable, partially applicable, or not applicable.

## RESULTS

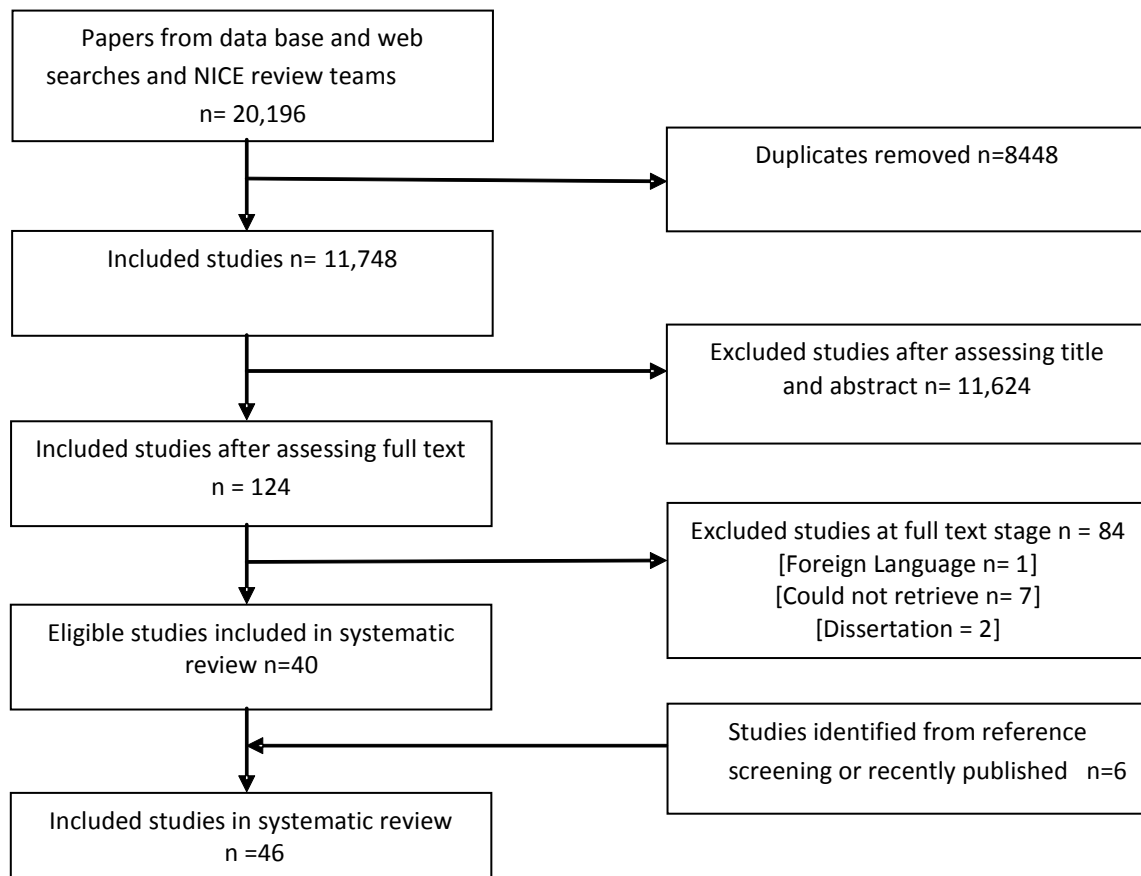
### OVERVIEW OF RESULTS FROM SEARCH

20,196 references were identified from the search strategy, comprising 20,058 references from the databases searched, 35 references located through web searches, and 103 references located through other NICE review teams. Following removal of 8,448 references due to duplication, a total of 11,748 references were screened based on their title and abstract. Of these, 11,624 references were deemed not eligible for inclusion, thus a total of 124 were screened based on their full text. We excluded 84 of the full-text papers with the majority of these being excluded due to not fulfilling the inclusion criteria; however one of these was excluded due to a translation not being available, two due to the dissertation not being available and seven due to the full text paper being irretrievable. Additionally, we identified a further five eligible papers from reference scanning of identified reviews. A moderately high inter-rater agreement rate of 67% was found between the reviewers based on data extraction and quality assessment.

One additional paper was recently published which assessed implementing a tailored tobacco dependence service in UK mental health settings, and assessing its impact, and barriers and facilitators to implementation (Parker et al 2012). As a pragmatic pilot project, its focus differs from the other included studies, and the findings are mainly presented and discussed in a separate section of the results. Thus, a total of 46 papers were deemed eligible for inclusion into the review (Figure 1).

A further two unpublished studies were recently identified through personal communication with lead authors in the area (Howard LM, Bekele D, Rowe M, Demilew J, Bewely S, & Marteau TM. Smoking cessation in pregnant women with mental disorders: a cohort and nested qualitative study, unpublished; Howard LM. Mental health nursing and physical health care: a cross-sectional study of nurses' attitudes, practice and perceived training needs for the physical health care of people with severe mental illness, unpublished). The findings from these studies will be incorporated into the review once the papers have been published. No further eligible studies were identified following the NICE call for evidence.

**Figure 1** Flow chart of study selection



### OVERVIEW OF STUDIES INCLUDED IN THE REVIEW

A total of 46 primary studies were included in the review (Appendix 4), with the majority focusing on the views of staff and mental health workers. One critical review and two discussion pieces were also included in the review.

### SETTINGS OF THE STUDIES

Eighteen of the included studies focused solely on inpatient settings, 16 solely on community settings, and nine on both inpatients and outpatient settings. The setting was unclear in the remaining three studies.

The majority of the included studies were conducted in the US, with a further nine studies being conducted in Australia, 10 studies in England, four studies in Canada, and individual studies from Brazil and South Ireland.

The majority of the included studies focused on the views, attitudes and beliefs of staff members, with a further 12 focusing solely on the views of the patients, and five focusing on both the views of the staff and the patients. One of the included studies reported the views of relatives and main care givers. One of the included studies collected information on barriers and facilitators relating to the implementation of a tobacco dependence service via the advisers.

### DESIGNS OF THE STUDIES

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The majority of the included studies used a survey based questionnaire, with only 12 studies using solely a qualitative approach, six using a mixed methods approach, and individual studies using either a case control design or an evaluation of a smoking cessation programme.

### QUALITY ASSESSMENT

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The overall quality of the included studies varied, with 12 studies being awarded the highest score for quality, respectively; which indicated that the study demonstrated all or most of the checklist criteria had been fulfilled, and where these had not been fulfilled, the conclusions of the study were unlikely to alter, had this been the case. Twenty-four studies were awarded medium score for quality, respectively; which indicated that the study demonstrated some of the checklist criteria had been fulfilled, and where they had not been fulfilled, or not adequately described, the conclusion of the study were unlikely to alter. Finally, ten studies were awarded the lowest score for quality, respectively; which indicated that few or none of the checklist criteria had been fulfilled and the conclusions of the study were likely or very likely to alter, had this been the case.

### APPLICABILITY

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Ten of the included studies were conducted in the UK [**Dickens 2004, Dickens 2005, Edmonds 2007, McNally 2010, Parker 2012, Ratschen 2009a, Ratschen 2009b, Ratschen 2010b, Sidani 2011, Stubbs 2004**]. The quality of these studies was generally average with seven being awarded the medium score for quality [**Dickens 2004, Dickens 2005, McNally 2010, Parker 2012, Ratschen 2009b, Sidani 2011, Stubbs 2004**]; whilst the remaining three were awarded the highest score [**Edmonds 2007, Ratschen 2009a, Ratschen 2010b**].

A further 10 studies were conducted in countries which have similar smoking cessation services to that of the UK [**Ashton 2010, Lawn 2002, Lawn 2004, Lawn 2006, Lubman 2006, Mikhailovich 2008, O'Donovan 2009, Tsourtos 2011, Wye 2009, Wye 2010**]. The quality of these 10 studies was generally high with six being awarded the highest score for quality [**Lawn 2002, Lawn 2004, Lawn 2006, Tsourtos 2011, Wye 2009, Wye 2010**], whilst the remaining four were either awarded a medium score [**Ashton 2010, Lubman 2006, O'Donovan 2009**] or the lowest score [**Mikhailovich 2008**].

**QUESTION 1. WHAT ARE THE BARRIERS AND FACILITATORS THAT AFFECT THE DELIVERY OF EFFECTIVE INTERVENTIONS, FOR EXAMPLE THE INTERVENTIONS AS IDENTIFIED IN REVIEW 4?**

All, except two [**Himelhoch 2003, Johnson 2009**], of the 46 studies included in the review addressed this question directly or indirectly. The studies are summarised in detailed in the evidence tables in Appendix 5. The results relating to this question are presented below and categorised based on the populations of interest; patients; relatives; service providers (staff and management). The country, study design (CC=case control, MM=mixed methods, PE=programme evaluation, Q=qualitative, S=survey), and quality score (++, +, -) for each study is presented in parentheses following the first author's name and year of publication.

**QUESTION 1A. WHAT ARE THE VIEWS (KNOWLEDGE, ATTITUDES, AND BELIEFS) OF THE POPULATIONS OF INTEREST IN MENTAL HEALTH SERVICES (ALL PATIENTS, SERVICE USERS [INCLUDING FAMILY, CARERS, AND VISITORS]) WHO MAY USE SMOKING CESSATION OR TEMPORARY ABSTINENCE INTERVENTIONS?**

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Seventeen studies and one review reported the views of patients and service users regarding the barriers and facilitators that affect the delivery of effective smoking cessation and temporary abstinence interventions in the population of interest [**Dickens 2005; Dickerson 2011; Edmonds 2007; Goldberg 1996; Green 2005; Kelly 2010; Lawn 2002; Lawn 2004; Lucksted 2000; Mikhailovich 2008; Morris 2009; Ratschen 2010b, Scherer unpublished; Solty 2009; Snyder 2008; Tidey 2009; Tsourtos 2011; Williams 2011**]. The methods and findings of the studies are presented briefly in Table 1.



Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

**Table 1 Characteristics of included studies – Patient and service users’ views (knowledge, attitudes and beliefs)**

<b>Author, year, quality</b>	<b>Aim of the study</b>	<b>Method, population, and setting</b>	<b>Location</b>
<b>Author:</b> Dickens <b>Year:</b> 2005 <b>Quality:</b> +	Views and beliefs of psychiatric inpatients about smoking in hospital	<b>Method:</b> Survey <b>Population:</b> Patients on forensic wards of psychiatric hospital <b>Sample size:</b> 45 <b>Setting:</b> Inpatient	England
<b>Author:</b> Dickerson <b>Year:</b> 2011 <b>Quality:</b> +	To understand better the experiences of persons with serious mental illness who have quit smoking	<b>Method:</b> Interviews <b>Population:</b> Patients with serious mental illness (schizophrenia, schizoaffective disorder, bipolar disorder, major depression) <b>Sample size:</b> 78 <b>Setting:</b> Community	USA
<b>Author:</b> Edmonds <b>Year:</b> 2007 <b>Quality:</b> ++	To examine the process of mental health professionals offering stop smoking support, exploring the experiences and perceptions of the participants in the one to one stop smoking intervention	<b>Method:</b> Evaluation and patient interviews <b>Population:</b> Mental health service users accessing specialised stop smoking service <b>Sample size:</b> 20 <b>Setting:</b> Community	England
<b>Author:</b> Goldberg <b>Year:</b> 1996 <b>Quality:</b> ++	To assess what clients themselves see as barriers and opportunities for smoking cessation	<b>Method:</b> Survey and focus groups <b>Population:</b> Patients with schizophrenia <b>Sample size:</b> 105 <b>Setting:</b> Community	Canada
<b>Author:</b> Green <b>Year:</b> 2005 <b>Quality:</b> +	To examine the attitudes of people with mental illness towards smoking reduction and cessation	<b>Method:</b> Focus groups <b>Population:</b> Patients with self-reported mental illness <b>Sample size:</b> 21 <b>Setting:</b> Community	Canada
<b>Author:</b> Kelly <b>Year:</b> 2010 <b>Quality:</b> -	To examine the views and attitudes regarding health risks of cigarettes smoking and motivators for cessation in smokers with schizophrenia and smoker without a psychotic disorder	<b>Method:</b> Case-control study <b>Population:</b> Patients with schizophrenia <b>Sample size:</b> 200 <b>Setting:</b> Unclear	USA
<b>Author:</b> Lawn <b>Year:</b> 2002 <b>Quality:</b> ++	To describe the experiences of mental health clinics as they relate to smoking behaviour, the relationship of smoking behaviour to the course of their mental illness and its management, and to their attempts to quit smoking	<b>Method:</b> Interviews <b>Population:</b> Patients with schizophrenia, depression, bipolar affective disorder, and personality disorder <b>Sample size:</b> 24 <b>Setting:</b> Community	Australia
<b>Author:</b> Lawn <b>Year:</b> 2004 <b>Quality:</b> ++	To compare experiences from two psychiatric institutions regarding smoking related problems	<b>Method:</b> Ethnographic <b>Population:</b> Ward patients <b>Sample size:</b> 500 observed	Australia

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		<b>Setting:</b> Inpatient	
<b>Author:</b> Lucksted <b>Year:</b> 2000 <b>Quality:</b> ++	To understand smoking and quitting from the perspective of the population of persons attending mental health programs	<b>Method:</b> Focus groups <b>Population:</b> Clients of program with mental illness <b>Sample size:</b> 40 <b>Setting:</b> Community	USA
<b>Author:</b> Mikhailovich <b>Year:</b> 2008 <b>Quality:</b> -	An evaluation of a smoking cessation programme for special populations through examining the value of NRT within the programme, identify changes to behaviour, wellbeing, and other factors associated with the health of the participants, and to document programme factors and strategies that contributed towards the success of the programme	<b>Method:</b> Programme evaluation (methods not clear) <b>Population:</b> Patients participating in drug and alcohol service, Aboriginal health service, and mental health service <b>Sample size:</b> 11 <b>Setting:</b> Inpatient and community	Australia
<b>Author:</b> Morris <b>Year:</b> 2009 <b>Quality:</b> +	To understand the factors that impede and support tobacco cessation efforts from the perspective of both community mental health patients and providers	<b>Method:</b> Focus groups <b>Population:</b> Mental health service users <b>Sample size:</b> 62 <b>Setting:</b> Community	USA
<b>Author:</b> Ratschen <b>Year:</b> 2010b <b>Quality:</b> ++	To explore patients' experiences, smoking behaviour and symptoms of nicotine withdrawal in the context of a comprehensive smoke-free policy on mental health acute wards, and to identify options for the future to promote and support smoking cessation and/or reduction in these settings	<b>Method:</b> Semi-structured interviews <b>Population:</b> Patients admitted to acute care inpatient psychiatry unit <b>Sample size:</b> 15 <b>Setting:</b> Inpatient	England
<b>Author:</b> Scherer <b>Year:</b> Unpublished <b>Quality:</b> +	To assess the opinions of hospitalised patients, their relatives, and care team members about tobacco use in the hospitalised environment and smokers' dependence levels	<b>Method:</b> Survey and interviews <b>Population:</b> Hospitalised inpatients and relatives or responsible care givers <b>Sample size:</b> 25 patients and 25 relatives/care givers <b>Setting:</b> Inpatient	Brazil
<b>Author:</b> Solty <b>Year:</b> 2009 <b>Quality:</b> +	To determine the prevalence of cigarette smoking and the degree of nicotine dependence, and to assess smokers attitudes towards smoking, motivation to quitting, and the frequency that advice to quit was provided	<b>Method:</b> Survey <b>Population:</b> Patients admitted to acute care inpatient psychiatry unit <b>Sample size:</b> 211 <b>Setting:</b> Inpatient	Canada
<b>Author:</b> Snyder <b>Year:</b> 2008 <b>Quality:</b> ++	To identify personal, social and environmental factors that affect smoking cessation in persons with serious mental illness	<b>Method:</b> Focus groups <b>Population:</b> Patients residing in psychiatric rehabilitation centres <b>Sample size:</b> 25 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Tidey <b>Year:</b> 2009 <b>Quality:</b> -	To compare the positive and negative smoking expectancies and intention to quit smoking in smokers with mental illness	<b>Method:</b> Survey <b>Population:</b> Patients with schizophrenia, schizoaffective disorder, and those without psychiatric illness <b>Sample size:</b> 81 <b>Setting:</b> Unclear	USA

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<p><b>Author:</b> Tsourtos  <b>Year:</b> 2011  <b>Quality:</b> ++</p>	<p>To determine why non-smokers are 'resilient' to smoking in a population where there is a high prevalence of smoking and high perceived levels of stress, in comparison with current smokers</p>	<p><b>Method:</b> Interviews  <b>Population:</b> Patients with medical diagnosis of depression, some of whom had other mental illnesses  <b>Sample size:</b> 34  <b>Setting:</b> Community</p>	<p>Australia</p>
<p><b>Author:</b> Williams  <b>Year:</b> 2011  <b>Quality:</b> -</p>	<p>To describe the reasoning behind the development of the comprehensive model for Mental Health Tobacco Recovery programme</p>	<p><b>Method:</b> Critical review  <b>Population:</b> N/A  <b>Sample size:</b> N/A  <b>Setting:</b> Unclear</p>	<p>USA</p>

Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

The findings of the studies are presented below based on themes and sub-themes relating to barriers and facilitators, with quotes to support the themes where possible.

The themes relating to the perceived barriers and facilitators are presented below in Table 2.

**Table 2 Synthesis framework for views of patients and service users**

Theme	Subthemes	Number of studies discussing theme
Patients' views, attitudes and perceptions regarding smoking	Reasons for/triggers of smoking: Psychosocial, environmental, and neurobiological factors  Priority of smoking  Cigarettes as a currency and mechanism of control	12
Patients' views, attitudes and perceptions regarding making a quit attempt	Perceived barriers of making a quit attempt  Perceived facilitators to making a quit attempt	15
Patients' views, attitudes and perceptions regarding successfully quitting	Perceived barriers of successfully quitting  Perceived facilitators of successfully quitting  Outcomes following successfully quitting  Suggested interventions for smoking cessation	12

## 1. PATIENTS' VIEWS, ATTITUDES AND PERCEPTIONS REGARDING SMOKING

Twelve studies discussed the patients' views, attitudes and perceptions of smoking. The theme is sub-divided into a) reasons for/triggers of smoking, b) priority of smoking, and c) cigarettes as a currency and mechanism of control.

### REASONS FOR/TRIGGERS OF SMOKING: PSYCHOLOGICAL, ENVIRONMENTAL, AND NEUROLOGICAL FACTORS

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In two studies, inpatients and outpatients expressed they used smoking as a vehicle for gaining more autonomy and exerting control over their lives [Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++].

*"A lot of the things I get told [to do] but I can choose to smoke and drink. So when there's not many choices, to have something you can choose to do is pretty good you see."* [Lawn 2002, Australia, Q++]

*"I did quit for a few days, and that makes me a person [who] chooses; nobody is forcing me."* [Snyder 2008, USA, Q++]

In seven studies of inpatients and outpatients, patients with mental illness often reported that boredom was a factor for their smoking [Dickens 2005, England, S+; Goldberg 1996, Canada, MM++; Green 2005, Canada, Q+; Morris 2009, USA, Q+; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++; Tsourtos 2011, Australia, Q++], with some perceiving smoking as being 'something to do' [Goldberg 1996, Canada, MM++].

*"Give me something to occupy my time. There is nothing to do...except smoke, sleep, and shower."* [Morris 2009, USA, Q+]

*"When I'm sitting around doing nothing, I smoke more; it fills the time."* [Snyder 2008, USA, Q++]

*"I started smoking 90 a day because of boredom."* [Tsourtos 2011, Australia, Q++]

*"It [smoking] relieves boredom."* [Green 2005, Canada, Q+]

Additionally, inpatients and outpatients from two studies identified the need for the availability of alternative activities in the community setting so that they had something meaningful to replace smoking [Goldberg 1996, Canada, MM++; Ratschen 2010b, England, Q++].

*"I know all the negative things that smoking does. If I had something to look forward to during the day, activities would keep my mind of the cigarettes."* [Goldberg 1996, Canada, MM++]

*"If you give up smoking, you have to give yourself something to do instead of that."* [Goldberg 1996, Canada, MM++]

*“If I do exercise, I don’t want to smoke at all. If I could go to the gym here, I could stop immediately”* [Ratschen 2010b, England, Q++]

In four studies, inpatients and outpatients reported that they enjoyed smoking [Edmonds 2007, England, Q++; Goldberg 1996, Canada, MM++; Lucksted 2000, USA, Q++; Ratschen 2010b, England, Q++], and in three studies inpatients and outpatients expressed it would be hard to replace the pleasure and satisfaction that cigarettes gave them [Edmonds, 2007, England, ++; Synder 2008, USA, Q++; Lawn 2002, Australia, Q++]. In one study, outpatients reported that family members thought smoking was one of the few pleasures they had [Lawn 2002, Australia, Q++]. In one study, outpatients reported that mental health staff encouraged them to continue smoking due to the lack of alternative pleasures in their life [Lucksted 2000, USA, Q++].

*“It is the only thing I do that I really enjoy,”* and *“[it’s a] cheap thrill – [the] longer you go without, the more you enjoy it when you have it.”* [Goldberg 1996, Canada, MM++]

*“Yeah, because it was my thing that I did was smoked...It was like a bereavement, it was... big hole, big, big hole.”* [Edmonds 2007, England, Q++]

*“[Not smoking would mean having] nothing to look forward to.”* [Snyder 2008, USA, Q++]

*“I’ve been trying to find the word for my smoking. It’s sort of condolence. Like, I don’t have much in my life, and smoking’s been with me for a long time...When you don’t have much in your life, it’s a bit hard giving up something so familiar... And I think ‘Well, why do I have to quit? I deserve something’.”* [Lawn 2002, Australia, Q++]

*“[Patient reported the staff member told them] You have so few pleasures in your life, hold on to those you do have, including smoking.”* [Lucksted 2000, USA, Q++]

In six studies, inpatients and outpatients with mental illness reported smoking was a way to relax or calm down [Green 2005, Canada, Q+; Morris 2009, USA, Q+; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++; Solty 2009, Canada, S+; Tsourtos 2011, Australia, Q++], and were effective at providing temporary relief from feelings of tension and anxiety.

*“Stress makes me smoke more.”* [Green 2005, Canada, Q+]

*“Smoking has been a fall back for me because it has helped me in different situations; I just needed something that was going to get me through a hard time.”* [Tsourtos 2011, Australia, Q++]

*“I see that it works as a mild sedative. It keeps me calm when I’m under stress. When I’m under stress, I use cigarettes to help me relax.”* [Ratschen 2010b, England, Q++]

In three studies, addiction and the habitual nature of smoking were frequently cited reasons for smoking in inpatients and outpatients with mental illness [**Solty 2009, Canada, +; Snyder 2008, USA, Q++; Goldberg 1996, Canada, MM++**].

*"I wouldn't know how not to smoke. I can't remember what it was like without smoking."*  
[**Snyder 2008, USA, Q++**]

However, it is worth noting that many of the quotes above could also simply reflect a very heavy addiction to smoking, but the patients' perceive their smoking to be due to other factors, for example, relieving stress and anxiety, where the smoker feel less stressed when they smoke in comparison to them feeling more stressed when they withdraw from nicotine.

In two studies, outpatients described that cigarettes gave them a sense of companionship [**Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++**], and inpatients described that they helped to overcome feelings of loneliness [**Snyder 2008, USA, Q++**].

*"Who else have I got? They're always there. They're good friends and they don't criticise you."* [**Lawn 2002, Australia, Q++**]

*"...Smoking's been with me a long time. It's reliable. It doesn't let me know. It doesn't answer back... It's shared much of my day with me. It's there when I've gone thought most things, I suppose."* [**Lawn 2002, Australia, Q++**]

*"Smoking is a crutch for people being lonely. Begging for cigarettes gets you connected. You get introduced, and it draws attention to you. It helps you get to know people. It's some kind of security."* [**Snyder 2008, USA, Q++**]

*"[Cigarettes are a] good friend."* [**Snyder 2008, USA, Q++**]

Additionally, in four studies, inpatients and outpatients expressed the opinion that smoking was a social pastime [**Green 2005, Canada, Q+; Goldberg 1996, Canada, MM++; Lawn 2004, Australia, Q++; Snyder 2008, USA, Q++**], particularly in boarding home settings where smoking was a major component of their interaction with other residents [**Goldberg 1996, Canada, MM++**].

*"If you smoke, you can join the gang."* [**Green 2005, Canada, Q+**]

*"It was just good being around other people but they all used to smoke, so I just joined in. It was a real social thing. Some of the nurses used to come out and have a smoke and talk to you. They'd be talking to you just as a friend, not like when you were talking to the doctor."*  
[**Lawn 2004, Australia, Q++**]

Furthermore, in one study, outpatients reported smoking was a means of connecting with friends and family, and mental health staff [**Morris 2009, USA, Q+**]. Additionally, peer pressure was cited as

a reason to smoke, with inpatients reporting pressure to continue to smoke from friends who were smokers [Snyder 2008, USA, Q++].

In five studies predominately focusing on outpatient populations, patients made the link between using smoking as a coping strategy for helping them to cope with the symptoms of their mental illness [Dickens 2005, England, S+; Goldberg 1996, Canada, MM++; Lawn 2002, Australia, Q++; Lucksted 2000, USA, Q++; Morris 2009, USA, Q+], including lessening the side effects of their psychotropic medication [Lucksted 2000, USA, Q++] and enhancing attention [Morris 2009, USA, Q+].

*"The voices I hear make me nervous, so I smoke to relax," and "Smoking and worry things are connected .... I use smoking to relax from the worry things, can't get rid of the worry things, can't stop smoking."* [Goldberg 1996, Canada, MM++]

*"It's [smoking] therapeutic for us. The nurse calms you down having a one to one in the smoke room." and "It helps break down barriers."* [Dickens 2005, England, S+]

*"If you're going through a rough time, [mental] illness-wise... and you're getting an enormous amount of activity in your brain, and you just want to take a break, take five, you have a cigarette, and .... It helps focus you, calms your thinking."* [Lucksted 2000, USA, Q++]

Additionally, in one study, outpatients reported that relatives tended to condone smoking as a mechanism that the patient used to manage their mental illness, and for some patients they thought relatives saw them as 'a lost cause and therefore beyond help with their smoking' [Lawn 2002, Australia, Q++].

In a further two studies, inpatients and outpatients reported they smoked because they feared illness deterioration [Lawn 2002, Australia, Q++; Lawn 2004, Australia, Q++].

*"When I'm well, I can do without a smoke for ages. I can stop smoking just like that! When I'm unwell, I'll smoke my head off."* [Lawn 2002, Australia, Q++]

*"You have to keep it a level up... like it's something your brain and body's doing automatically to let you know that your nicotine level is dropping... it's a physical thing of actually needing it."* [Lawn 2002, Australia, Q++]

In one study, outpatients expressed that they were given more information from staff regarding the positive aspects of smoking, rather than the negative ones [Morris 2009, USA, Q+].

*"I more or less became a smoker because I was told it would help me with my illness. I was taught more about it helping with my illness than I was about cancer and stuff like that."* [Morris 2009, USA, Q+]



### PRIORITY OF SMOKING

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In three studies, inpatients and outpatients expressed smoking was a major priority in their lives [Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++; Tsourtos 2011, Australia, Q++], with cigarettes being referred to as an 'affordable luxury' [Snyder 2008, USA, Q++].

*"It's like a security blanket."* [Tsourtos 2011, Australia, Q++]

*"The first time when I had no money... I used to go around the street looking for butts... I don't know where or who they came from but I'd unroll them and join them all up again in one.... I've been that bad... I would have done anything for one at the time."* [Lawn 2002, Australia, Q++]

*"Once I was in hospital and I didn't smoke for 8 days. I felt good. A couple [of] hours after leaving, my case worker offered me some money, and then I snapped in my head, 'I'm gonna buy some cigarettes'. I didn't have anything else to fall back on. There wasn't anything else affordable."* [Snyder 2008, USA, Q++]

### CIGARETTES AS A CURRENCY AND MECHANISM OF CONTROL

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In three studies, patients reported cigarettes were used as a form of currency in an inpatient setting or as a mechanism of control [Lawn 2002, Australia, Q++; Lawn 2004, Australia, Q++; Lucksted 2000, USA, Q++].

In one study, inpatients reported the physical structure of the inpatient setting was found to promote a power play between patients and staff [Lawn 2004, Australia, Q++].

*"When you're locked up and treated like animals in a cage, you choose to smoke because there's not much else you can choose. If you fight back, they throw you in seclusion. When other things are so restricted on you, smoking is one thing you can decide to do to nark them, to show them that they're not totally controlling you... You feel very powerless."* [Lawn 2004, Australia, Q++]

Additionally, in two further studies, outpatients perceived their smoking was used as a reward or punishment in order to control their behaviour during their time in an inpatient setting [Lawn 2002, Australia, Q++; Lucksted 2000, USA, Q++].

*"Sometimes the smokes were almost used like blackmail so that, if you didn't do the right thing, the cigarettes were denied you. So if you're someone who usually smokes a cigarette every twenty minutes or so, you'd be frantic. It takes away your sense of being a person."* [Lawn 2002, Australia, Q++]

In one study, inpatients reported that smokers would be subject to reduced rates for boarding so they were able to have sufficient funds to buy cigarettes, or that they exchanged cigarettes for other needs, including sexual interactions with other inpatients **[Lawn 2004, Australia, Q++]**.

*“Occasionally we have entrepreneurial people who charge considerably more than the cost of cigarettes, or they’ll actually use cigarettes in order to get sexual favours.”* **[Lawn 2004, Australia, Q++]**

#### EVIDENCE STATEMENTS

ES 1.1 There is strong evidence to suggest inpatients and outpatients' perceived the reasons for smoking are: to gain autonomy [Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++]; relieve boredom [Dickens 2005, England, S+; Goldberg 1996, Canada, MM++; Green 2005, Canada, Q+; Morris 2009, USA, Q+; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++; Tsourtos 2011, Australia, Q++]; nicotine addiction [Soly 2009, Canada, S+; Snyder 2008, USA, Q++; Goldberg 1996, Canada, MM++]; pleasure and enjoyment [Edmonds 2007, England, Q++; Goldberg 1996, Canada, MM++; Lawn 2002, Australia, Q++; Lucksted 2000, USA, Q++; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++]; and to relax and calm down [Green 2005, Canada, Q+; Morris 2009, USA, Q+; Ratschen 2010b, England, Q++; Snyder 2008, USA, Q++; Soly 2009, Canada, S+; Tsourtos 2011, Australia, Q++].

ES 1.2 There is strong evidence from Canada and England to suggest inpatients and outpatients perceive the need for alternative meaningful activities to replace smoking [Goldberg 1996, Canada, MM++; Ratschen 2010b, England, Q++].

ES 1.3 There is strong evidence to suggest inpatients and outpatients smoke to give them a sense of companionship [Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++] and as a form of social pastime [Green 2005, Canada, Q+; Goldberg 1996, Canada, MM++; Lawn 2004, Australia, Q++; Morris 2009, USA, Q+; Snyder 2008, USA, Q++], particularly in residential care and inpatient settings where smoking was a major component of their interaction with other residents.

ES 1.4 There is strong evidence to suggest inpatients and outpatients report smoking as a form of self-medication to cope with symptoms of their mental illness [Goldberg 1996, Canada, MM++; Lawn 2002, Australia, Q++; Dickens 2005, England, S++; Morris 2009, USA, Q+; Lucksted 2000, USA, Q++], and because they fear stopping may result in a deterioration in their illness [Lawn 2002, Australia, Q++; Lawn 2004, Australia, Q++].

ES 1.5 There is strong evidence to suggest smoking was a major priority in the lives of inpatients and outpatients with mental illness [Lawn 2002, Australia, Q++; Snyder 2008, USA, Q++; Tsourtos 2011, Australia, Q++].

ES 1.6 There is strong evidence to suggest inpatients and outpatients perceive staff use cigarettes as a mechanism of control in inpatients settings [Lawn 2002, Australia, Q++; Lawn 2004, Australia, Q++; Lucksted 2000, USA, Q++], in particular using them as a reward or punishment in order to control the patient's behaviour [Lawn 2002, Australia, Q++; Lucksted 2000, USA, Q++].

Applicability: The evidence has direct applicability to the current UK settings and/or practices. Three of the studies were conducted in the UK [Dickens 2005, England, S+; Edmonds 2007, England, Q++; Ratschen 2010b, England, Q++], and a further three were conducted in a country which was deemed to have similar applicability to that of the UK setting [Lawn 2002, Australia, Q++; Lawn 2004, Australia, Q++; Tsourtos 2011, Australia, Q++].

## 2. PATIENTS' VIEWS, ATTITUDES AND PERCEPTIONS REGARDING MAKING A QUIT ATTEMPT

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Fifteen studies discussed the patients' views, attitudes and perceptions of quitting smoking. The theme is sub-divided into a) perceived barriers of making a quit attempt, and b) perceived facilitators to making a quit attempt.

### A. PERCEIVED BARRIERS OF MAKING A QUIT ATTEMPT

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In four studies of inpatients and outpatients, addiction to cigarettes was reported as a major barrier to quitting smoking [**Dickens 2005, England, S+**; **Green 2005, Canada, Q+**; **Goldberg 1996, Canada, MM++**; **Snyder 2008, USA, Q++**], with patients reporting they were 'hooked on it' [**Green 2005, Canada, Q+**; **Goldberg 1996, Canada, MM++**], were 'addicted to nicotine' [**Goldberg 1996, Canada, MM++**], or expressed "it's just too difficult to give up smoking" [**Dickens 2005, England, S+**]. In particular, in one study, some outpatients reported nothing would motivate them to quit smoking, due to their severity of dependence on nicotine [**Goldberg 1996, Canada, MM++**]. Additionally, fear of nicotine withdrawal and the habitual nature of smoking were also identified as barriers to quitting in one study [**Goldberg 1996, Canada, MM++**].

*"I need something to knock it out of my mind completely."* [**Snyder 2008, USA, Q++**]

*"It is your best friend... when I tried to quit, my thoughts go crazy and I start thinking about smoking cigarettes all the time."* [**Goldberg 1996, Canada, MM++**]

*"After I have a cigarette, I say to myself, I've got to stop smoking, but it doesn't materialize. It's hard because it becomes a routine."* [**Goldberg 1996, Canada, MM++**]

*"Even if my live-in boyfriend asked me to quit or move out, I'd move out"* [**Goldberg 1996, Canada, MM++**]

*"Even if the price went way up, I'd give up other things to still smoke"* [**Goldberg 1996, Canada, MM++**]

In three studies, inpatients and outpatients often reported they felt they were unable to quit smoking, primarily related to a lack of motivation and a sense of helplessness [**Goldberg 1996, Canada, MM++**; **Morris 2009, USA, Q+**; **Snyder 2008, USA, Q++**].

*"I was never able to quit longer than a few weeks. All three times I quit I really didn't have the desire to quit."* [**Snyder 2008, USA, Q++**]

Stress was also identified as a barrier to quitting by inpatients and outpatients in two studies [**Ratschen 2010b, England, Q++**; **Tsourtos, 2011, Australia, Q++**].

*"Smoking stresses my body but giving up increases stress to the max"* [**Tsourtos 2011, Australia, Q++**]

In two studies, inpatients and outpatients identified that the severity of mental health symptoms was a barrier to quitting smoking [Mikhailovich 2008, Australia, MM-; Tsourtos 2011, Australia, Q++], due to having more “downtimes” [Tsourtos 2011, Australia, Q++].

In three studies, inpatients and outpatients perceived there was little point in quitting smoking as this would have no direct effect on their recovery from their mental illness [Lawn 2002, Australia, Q++], quality of life [Ratschen 2010b, England, Q++], or health [Snyder 2008, USA, Q++].

*“I’m just not sure what else there is. What would I do with myself? I don’t expect my current situation to be any different... Seems like I’ve got an illness, like, it would be good to go wouldn’t it. I wouldn’t have the illness no more... Even if I did give up smoking, I’ve still got schizophrenia, haven’t I?” [Lawn 2002, Australia, Q++]*

*“Yes, but what would be the benefit of giving up? If it’s important for me to give up smoking, I have to understand the reason why I should give up smoking. My quality of life won’t change if I gave up. My life is sitting watching TV, sitting around, having teas, and then sleeping. There’s no motivation to give up, is there?” [Ratschen 2010b, England, Q++]*

*“I have a friend who doesn’t smoke or drink, yet he coughs and coughs. He’s a young guy, so I know it isn’t just the smoking.” [Snyder 2008, USA, Q++]*

Additionally, there was evidence from one study (setting unclear) that smokers with a psychotic disorder thought health concerns was less of a motivator for considering quitting than patients without a psychotic disorder [Kelly 2010, USA, CC-].

In three studies, the smoking status of relatives, peers and staff was thought to be a major barrier to quitting smoking; where inpatients and outpatients expressed that they would find it difficult to stop smoking when their friends, families, and mental health staff continued to smoke around them [Dickens 2005, UK, S+; Goldberg 1996, Canada, MM++; Morris 2009, USA, Q+]. Additionally, in one study, outpatients perceived that the places where activities were available, such as club houses and drop-in centres, tended to condone smoking [Morris 2009, USA, Q+].

*“They [mental health providers] have to not smoke or they’re not a good example for me. If they smoke, they’ve got nothing to tell me.” [Morris 2009, USA, Q+]*

In three studies, outpatients identified that negative views and beliefs of staff were factors which determined their beliefs regarding quitting smoking [Green 2005, Canada, Q+; Lawn 2002, Australia, Q++; Lucksted 2000, USA, Q++]. Outpatients reported mental health staff were negative and judgmental about their smoking behaviour, which consequently increased the patients’ sense of powerlessness [Lawn 2002, Australia, Q++]. Furthermore, outpatients reported staff actively

discouraged them stopping smoking due to the staffs' beliefs that it would increase worry and stress [Lucksted 2000, USA, Q++]. Additionally, outpatients reported being told by staff members that they should only contemplate quitting smoking towards the end of their life [Green 2005, Canada, Q+].

*"You have so many troubles, why worry about this one too?"* [Lucksted 2000, USA, Q++]

*"It would be too stressful [to quit]."* [Lucksted 2000, USA, Q++]

*"[You will] stop towards the end of [your] life."* [Green 2005, Canada, Q+]

A lack of knowledge regarding effective cessation strategies was discussed as a barrier to making a quit attempt in two studies [Morris 2009, USA, Q+; Lucksted 2000, USA, Q++], with outpatients citing the need for structured patient education for smoking cessation, which detailed relevant information about smoking cessation interventions, such as NRT, issues relating to psychotropic medications and methods of minimising withdrawal symptoms [Morris 2009, USA, Q+; Lucksted 2000, USA, Q++].

#### B. PERCEIVED FACILITATORS TO MAKING A QUIT ATTEMPT

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The health effects of smoking was reported as a facilitator to making a quit attempt in six studies of inpatients and outpatients [Dickerson 2011, USA, Q+; Goldberg 1996, Canada, MM++; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+; Tidey 2009, USA, S-; Tsourtos 2011, Australia, Q++].

*"I got fed up with it [smoking]. It causes lung cancer", "I'd rather quit now than when I die. It's a nasty, dirty habit."* [Dickerson 2011, USA, Q+]

*"Looking at a picture of blackened lungs and people who could only breathe with a respirator."* [Goldberg 1996, Canada, MM++]

However, in two studies, some outpatients reported that they would need to experience a negative health effect before they attempted to quit smoking [Dickerson 2011, USA, Q+; Goldberg 1996, Canada, MM++].

*"I had a bad cough and took a day off from smoking. I never smoked since."* [Dickerson 2011, USA, Q+]

*"When I feel my health is going bad – it doesn't bother my throat much [now] and I smoke a lot."* [Goldberg 1996, Canada, MM++]

Furthermore, in one study, outpatients believed they would need firm direction from their doctor before they would attempt to quit smoking [Goldberg 1996, Canada, MM+].

*“If I was told by my doctor that I couldn’t smoke anymore or I’d die.” [Goldberg 1996, Canada, MM++]*

Peer, family and social pressures were cited as important facilitators to making a quit attempt in three studies of inpatients and outpatients [Goldberg 1996, Canada, MM++; Kelly 2010, USA, CC-; Snyder 2008, USA, Q++], with patients reporting the need to reduce their smoking consumption due to family and social pressures to quit smoking (setting unclear) [Kelly 2010, USA, CC-]. However, in a further study, only a few current inpatient smokers who had made previous attempts to reduce their smoking consumption reported social and family pressure as a reason [Soly 2009, Canada, S+].

*“I think the government is trying to change the majority to the minority, and when you have the majority of people doing a certain thing, you’re gonna choose to go with the majority... If the majority of you guys didn’t smoke cigarettes, I probably would not smoke. I would go with the majority.” [Snyder 2008, USA, Q++]*

Additionally, in two studies, inpatients and outpatients reported they would find it easier to quit smoking if they had more social support to encourage them to stop smoking [Goldberg 1996, Canada, MM++; Snyder 2008, USA, Q++].

*“I would need to drag my momma, my grandmother, everybody, even my dog, to encourage me not to smoke.” [Snyder 2008, USA, Q++]*

Patients reported their social environment was important factor related to whether they smoked or not; with inpatients reporting that they respected the rules of not smoking when they were in an environment where smoking was not allowed [Snyder 2008, USA, Q++].

*“It is interesting to me that I am able to not smoke for several weeks when I stay at my mom’s house, but the minute I am back in my apartment, I light up.” [Snyder 2008, USA, Q++]*

*“A lot of time we recognise we don’t need to smoke, like at church. We give respect to the place.” [Snyder 2008, USA, Q++]*

Additionally, in one study, some outpatients reported the negative image of smoking motivated them to make a quit attempt [Goldberg 1996, Canada, MM++].

*“[I] didn’t want to be the perfect picture of a psychiatric patient – they all smoke.” [Goldberg 1996, Canada, MM++]*

The cost of cigarettes was identified as an important facilitator to quitting smoking in four studies of inpatients and outpatients [Dickerson 2011, USA, Q+; Goldberg 1996, Canada, MM++; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+]. Outpatients who were former smokers reported the cost of cigarettes was a major facilitator for motivating them to quit [Dickerson 2011, USA, Q+; Goldberg 1996, Canada, MM++], and inpatient's who were current smokers reported cost as one of the major reasons for initiating past attempts to reduce their cigarette consumption [Solty 2009, Canada, S+].

In three studies, outpatients identified that a positive attitude would be needed before initiating a quit attempt otherwise the attempt would definitely fail [Morris 2009, USA, Q+; Edmonds 2007, England, Q++; Lucksted 2000, USA, Q++]. In particular, in one study, outpatients identified the importance of using pharmacological treatments in combination with motivation, information and sustained support to enhance the success of a quit attempt [Lucksted 2000, USA, Q++].

In a further study, outpatients believed they should be educated in the harmful effects of tobacco use versus the potential benefits of symptoms control for their mental illness [Morris 2009, USA, Q+]. However, in a study conducted in the UK, the majority of inpatients thought they received sufficient information regarding giving up smoking, and the staff on the wards were thought to be supportive [Dickens 2005, England, S+].

In one study, outpatients thought they would only try to quit smoking if the process could be done 'painlessly' [Lawn 2002, Australia, Q++].

*"I'd like them to take me to hospital for 3 to 4 days and tie me down and give me a sleeping drug for that time and I'd probably wake up and not want a smoke... To quit I think I'd need the magic pill."* [Lawn 2002, Australia, Q++].

#### EVIDENCE STATEMENTS

ES 2.1 There is strong evidence to suggest inpatients and outpatients perceive nicotine addiction as a major barrier to making a quit attempt [Dickens 2005, England, S+; Green 2005, Canada, Q+; Goldberg 1996, Canada, MM++; Snyder 2008, USA, Q++].

ES 2.2 There is strong evidence to suggest inpatients and outpatients consider they are unable to quit smoking, primarily related to a lack of motivation [Goldberg 1996, Canada, MM++; Morris 2009, USA, Q+; Snyder 2008, USA, ++]. There was moderate evidence to suggest inpatients and outpatients perceive stress [Tsourtos, 2011, Australia, ++], and the severity of their mental health symptoms [Mikhailovich 2008, Australia, MM-; Tsourtos 2011, Australia, Q++] as barriers to quitting smoking.

ES 2.3 There is moderate evidence to suggest some inpatients and outpatients perceived there was little point in quitting smoking as this would have no direct effect on their recovery from their



mental illness [**Lawn 2002, Australia, Q++**], improve their quality of life [**Ratschen 2010b, England, Q++**], or health [**Snyder 2008, USA, Q++**].

ES 2.4 There is strong evidence to suggest inpatients' and outpatients' perceive the influence of peer, family, and social pressure as important barriers to quitting, with patients perceiving it difficult to quit smoking when peers, family, and staff members smoke around them [**Dickens 2005, England, S++**; **Goldberg 1996, Canada, MM++**; **Morris 2009, USA, Q+**].

ES 2.5 There is strong evidence to suggest outpatients perceive the negative views and beliefs of staff as important barriers to quitting smoking [**Green 2005, Canada, Q+**; **Lawn 2002, Australia, Q++**; **Lucksted 2000, USA, Q++**].

ES 2.6 There is moderate evidence from the USA to suggest outpatients perceive they have a lack of knowledge regarding which strategies are effective for smoking cessation [**Morris 2009, USA, Q+**; **Lucksted 2000, USA, Q++**]; with outpatients requesting the need for structured patient education, which detailed relevant information about smoking cessation interventions, issues relating to psychotropic medications and methods of minimising withdrawal symptoms [**Morris 2009, USA, Q+**; **Lucksted 2000, USA, Q++**].

ES 2.7 There is mixed evidence regarding the impact of the patients' physical health on quitting smoking, with strong evidence to suggest inpatients' and outpatients' with mental illness perceived worrying about their physical health was a facilitator to quitting smoking [**Dickerson 2011, USA, Q+**; **Goldberg 1996, Canada, MM++**; **Ratschen 2010b, England, Q++**; **Solty 2009, Canada, S+**; **Tidey 2009, USA, S-**; **Tsourtos 2011, Australia, Q++**]. However, there is moderate evidence to suggest that outpatients would need to experience a negative health effect of smoking before they would consider quitting [**Dickerson 2011, USA, Q+**; **Goldberg 1996, Canada, MM++**].

ES 2.8 There is strong evidence to suggest inpatients' and outpatients' perceive the influence of peer, family, and social pressures to quit smoking as important facilitators to quit [**Goldberg 1996, Canada, MM++**; **Kelly 2010, USA, CC-**; **Snyder 2008, USA, Q++**].

ES 2.9 There is strong evidence to suggest inpatients and outpatients perceive the high cost of cigarettes as a major facilitator to quitting smoking [**Dickerson 2011, USA, Q+**; **Goldberg 1996, Canada, MM++**; **Ratschen 2010b, England, Q++**; **Solty 2009, Canada, S+**].

ES 2.10 There is moderate evidence to suggest outpatients' perceived they would need to have a positive attitude regarding the success of their quit during a quit attempt to maximise success [**Morris 2009, USA, Q+**; **Edmonds 2007, England, Q++**].

Applicability: The evidence has direct applicability to the current UK settings and/or practices. Three of the studies were conducted in the UK [**Dickens 2005, England, S+**; **Edmonds 2007, England, Q++**; **Ratschen 2010b, England, Q++**], and a further three were conducted in a country which was deemed to have similar applicability to that of the UK setting [**Lawn 2002, Australia, Q++**; **Mikhailovich 2008, Australia, MM-**; **Tsourtos 2011, Australia, Q++**].

### 3. PATIENTS' VIEWS, ATTITUDES AND PERCEPTIONS REGARDING SUCCESSFULLY QUITTING

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Eleven studies and one review discussed the patients' views, attitudes and perceptions regarding successful quitting. This theme is sub-divided into a) perceived barriers of successfully quitting, b) perceived facilitators to successfully quitting, c) outcomes following successfully quitting, and d) suggested interventions for smoking cessation.

#### A. PERCEIVED BARRIERS OF SUCCESSFULLY QUITTING

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A literature review of primary studies reported patients with mental illness tended to perceive NRT was not effective for smoking cessation [Williams 2011, Review, -], and this was discussed in two studies of inpatients [Scherer unpublished, Brazil, MM+; Ratschen 2010b, England, Q++].

*"Many do not believe that NRT improves a smoker's chance of quitting despite an abundance of evidence to the contrary... These same barriers are even greater in the mental health system."* [Williams 2011, Review, -]

*"I believe that the patch does not work, it doesn't solve anything."* (inpatient) [Scherer unpublished, Brazil, MM+]

*"I think it [NRT] doesn't solve anything, a medicine that made you feel disgust would be better."* (relative) [Scherer unpublished, Brazil, MM+]

Additionally, in one study, some inpatients described that using NRT made them smoke more and were therefore reluctant to use NRT for smoking cessation [Ratschen 2010b, England, Q++].

*"Last time I went on patches I smoked three times as much – I don't know why."* [Ratschen 2010b, England, Q++]

Furthermore, some inpatients in one study reported they would not take any smoking cessation medication in addition to that for their mental illness [Ratschen 2010b, England, Q++].

*"I don't know what they've got on the market now, but I wouldn't want to take any medication, but I would try the patches or inhalers."* [Ratschen 2010b, England, Q++]

Additionally, the use of unsupported quit attempts was discussed in one study of inpatients; half of current smokers reported they would initially try to quit on their own, and the majority of former smokers said they had successfully quit smoking on their own [Soltz 2009, Canada, S+].

The literature review also reported that some smokers believed pharmacological interventions for smoking cessation which contained nicotine would be more harmful than smoking cigarettes [Williams 2011, Review, -].

*“Smokers are often mis-informed, mistakenly believing that nicotine is a carcinogen and that NRT poses more cardiovascular threat than smoking.” [Williams 2011, Review, -]*

The cost of NRT was reported by outpatients as a major barrier for its use as a smoking cessation intervention [Lawn 2002, Australia, Q++]; however, in a further study outpatients were not aware that NRT could be received on prescription and so would have been free for those entitled to free prescriptions [Edmonds 2007, England, Q++].

In one UK study, outpatients generally had quite negative views regarding attending group behavioural support and perceived the group format would not be as effective for quitting smoking as compared to one to one support [Edmonds 2007, England, Q++].

*“I don’t do well in big groups. I get a little bit pensive. I wouldn’t have been able to handle that. Too much stress for nothing. Which would make me want to go outside for a cigarette.” [Edmonds 2007, England, Q++]*

*“I did have this little picture of going into one of these groups, where you all sit around, a bit like AA [Alcoholics Anonymous]. I did have a thought that I might end up in one of those.” [Edmonds 2007, England, Q++]*

Additionally, in one UK study, some inpatients felt that an inpatient setting was not a suitable environment to be given smoking cessation support [Ratschen 2010b, England, Q++].

*“No [I would not attend a support programme on the inpatient ward] because if I wanted to give up I would.... I’m only smoking a lot because I’m in hospital.” [Ratschen 2010b, England, Q++]*

In one study, inpatients and outpatients identified that some smokers with mental illnesses may have difficulties accessing smoking cessation programmes, for example, due to needing to use public transport [Mikhailovich 2008, Australia, MM-].

## B. PERCEIVED FACILITATORS TO SUCCESSFULLY QUITTING

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The effectiveness of NRT as a smoking cessation intervention was discussed in five studies [Dickens 2005, England, S+; Edmonds 2007, England, Q++; Lawn 2002, Australia, Q++; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+], with inpatients from three studies perceiving NRT to be the most beneficial intervention to help them quit smoking [Dickens 2005, UK, S+; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+].

## Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

In four studies, inpatients and outpatients discussed the role of behavioural support as an intervention for smoking cessation [Dickerson 2011, USA, Q+; Edmonds 2007, England, Q++; Morris 2009, USA, Q+; Ratschen 2010b, England, Q++], with outpatients reporting they would have found the option of using behavioural support interventions useful during their quit attempts [Dickerson 2011, USA, Q+; Edmonds 2007, England, Q++].

*“It’s got to be a one to one for you to be able to get it through your head.” [Edmonds 2007, England, Q++]*

In one UK study, outpatients in the study thought it was important that they were able to dictate how many sessions of behavioural support they received as part of the smoking cessation support [Edmonds 2007, England, Q++].

*“It all needs to be all free option, as many options as possible, and people to choose.” [Edmonds 2007, England, Q++]*

The setting of behavioural smoking cessation support was reported an influential factor in quitting in one study [Edmonds 2007, England, Q++], with outpatients reporting the need for the support to be delivered in an informal and non-clinical environment.

*“It felt informal, not like you were going to a clinic or anything like that or any kind of rehab. It is like a homely environment.” [Edmonds 2007, England, Q++]*

*“Going to a group or the hospital or somewhere like that... would have been a bit anxious about that.” [Edmonds 2007, England, Q++]*

*“...the home environment is much better... a mentally ill patient has to keep going to these meeting and seeing psychiatrists and doctors and nurses and it’s all pressure... whereas when it’s in your own environment, you’re relaxed and you feel more inclined to ask the right questions, whereas when you have to go and see a psychiatrist or a nurse or whatever or a doctor, you’re nervous and you don’t ask the same questions, you forget the questions that you were going to ask and you don’t get the same result. You just don’t get the same result.” [Edmonds 2007, England, Q++]*

In one UK study, outpatients expressed the opinion that the behavioural support offered to them should be tailored to their needs as a patient with mental illness [Edmonds 2007, England, Q++].

*“Because they are actually taking your personal care into consideration and it is different if you have a mental health problem, the smoking issues, compared to being in the general public, I just feel that having an extra support like that was really good... it’s just like being treated like an individual and not like the herd thing, being listened to and being supported is*

*just much better than the general way of doing it for most people I think.” [Edmonds 2007, England, Q++]*

In two studies, outpatients identified the need for smoking cessation support to involve peer support through the involvement of either one or more persons with a history of mental illness who had successfully quit smoking [Dickerson 2011, USA, Q+; Morris 2009, USA, Q+].

*“...maybe a peer advocate, maybe somebody that’s smoked and quit smoking and they have ideas of how they dealt with stress at that time and how they deal with it now.” [Morris 2009, USA, Q+]*

*“I think support groups would be helpful. The more people that are trying to quit you can feed off each other’s need to quit, or motivation to quit.” [Morris 2009, USA, Q+]*

In one study, outpatients described the importance for the staff supporting the patient to quit smoking to be able to have a balance between taking a non-judgmental approach to quitting [Edmonds 2007, England, Q++], whilst being able to maintain a positive expectation in the patient’s ability to quit smoking [Morris 2009, USA, Q+].

*“He was saying that even if you didn’t manage to make it, it wasn’t really a failure, you could just try again .... Watch out for when you make mistakes again.” [Edmonds 2007, England, Q++]*

Additionally, outpatients reported a major facilitator to quitting was that the smoking cessation advisor had confidence in them being successful [Edmonds 2007, England, Q++].

*“[The advisor] had a lot of confidence in me and I think that was what I needed” [Edmonds 2007, England, Q++]*

In particular, outpatients thought a major facilitator to the success of their quit attempt was related to the staff acting as an advocate during the quit attempt [Edmonds 2007, England, Q++].

*“Well, she was very helpful with the chemist. My chemist isn’t very helpful and .... she was very supportive with him, no, to me, for letting him know that this particular drug was what she had asked for, and that particular drug was what she wants me to have and that this other one which was 10 pounds cheaper wasn’t the one she wanted, and that’s what she told him. And she told him that she wanted a month’s supply, ... not just a week’s and then stop, which is what he was doing and .... She soon sorts people out.” [Edmonds 2007, England, Q++]*

Furthermore, in one study, outpatients identified the importance of the smoking cessation advisor having a good knowledge of mental health problems, and how smoking and quitting can impact on their mental health [Edmonds 2007, England, Q++].

*“It was helpful not having to explain about being ill because, it was almost as if she understood...it’s not a nice place to be without having to explain it to people, so I think that the fact that there are people that can help you stop smoking who know about mental health issues is helpful.”* [Edmonds 2007, England, Q++]

### C. OUTCOMES FOLLOWING SUCCESSFULLY QUITTING

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In one study, outpatients reported successfully quitting improves their mental health and relationships with others through a sense of achievement and increased communication with others [Edmonds 2007, England, Q++].

*“I feel really proud of myself.”* [Edmonds 2007, England, Q++]

*“Found we sat and talked quite a lot a more... I’d say it has been positive experience.”* [Edmonds 2007, England, Q++]

Additionally, in an evaluation of a smoking cessation programme, inpatients’ with mental health conditions were noted to form new social activity groups as they quit smoking [Mikhailovich 2008, Australia, MM-].

*“...also formed a social group to walk together or play cards.”* [Mikhailovich 2008, Australia, MM-]

### D. SUGGESTED INTERVENTIONS FOR SMOKING CESSATION

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The use of monetary incentives as rewards for achieving smoking cessation was discussed in two studies [Goldberg 1996, Canada, MM++; Kelly 2010, USA, CC-]. In one study, outpatients reported they would be more motivated to attempt to quit smoking if they were paid [Goldberg 1996, Canada, MM++]; however, in another study immediate reinforcements and rewards were significantly less likely to be a major motivators for considering smoking cessation in patients with schizophrenia as compared to controls without psychotic disorders (setting unclear) [Kelly 2010, USA, CC-].

The role of cutting down on cigarettes was discussed in two studies [Lawn 2002, Australia, Q++; Ratschen 2010b, England, Q++]. In one study, outpatients perceived they would find it easier to achieve success if their goal was to cut down on their smoking rather than aiming for complete smoking cessation, so they were able to continue to use the nicotine from the cigarettes, albeit at lower levels, as a form of self-medication [Lawn 2002, Australia, Q++]. However, other outpatients

in the study reported cutting down would not be an appropriate goal for them due to the temptation of still having access to cigarettes [Lawn 2002, Australia, Q++].

In the second study, some inpatients were not aware that NRT could be used as to reduce smoking [Ratschen 2010b, England, Q++]. Additionally, some of the inpatients stated cutting down their cigarette consumption could be of interest to them [Ratschen 2010b, England, Q++].

*“Just reduce smoking really, because I’m not bothered how much I smoke, but while I’m on the ward I do worry about it, because I haven’t got much money to keep buying cigarettes and toiletries, and when I leave I have to find accommodation, and I have to sacrifice something, and sacrificing cigarettes is better than sacrificing my toiletries or food or anything.” [Ratschen 2010b, England, Q++]*

#### EVIDENCE STATEMENTS

ES 3.1 There is moderate evidence from Brazil and England to suggest inpatients’ perceive NRT as not effective for smoking cessation [Scherer unpublished, Brazil, MM+; Ratschen 2010b, England, Q++]; however, there is moderate evidence from UK and Canadian studies to suggest that some inpatients’ perceived NRT to be the most beneficial intervention to help them quit smoking [Dickens 2005, UK, S+; Ratschen 2010b, England, Q++; Solty 2009, Canada, S+]. There is moderate evidence from England to suggest some inpatients would prefer not to take further medications than those they were already taking for their mental illness [Ratschen 2010b, England, Q++].

ES 3.2 There is moderate evidence from Australia to suggest outpatients perceived the cost was a barrier to using NRT for smoking cessation [Lawn 2002, Australia, Q++]; and moderate evidence from England to suggest outpatients were not aware that NRT could be received on prescription and so would have been free for those entitled to free prescriptions [Edmonds 2007, England, Q++].

ES 3.3 There is moderate evidence from England to suggest that outpatients perceived the group format for behavioural therapy would not be as effective as using an individual (one-to-one) format [Edmonds 2007, England, Q++].

ES 3.4 There is moderate evidence from England to suggest that inpatients perceived providing smoking cessation support in a hospital inpatient setting would not be the most suitable environment [Ratschen 2010b, England, Q++].

ES 3.5 There is moderate evidence to suggest outpatients’ would have found the option of using behavioural support interventions useful during their quit attempts [Dickerson 2011, USA, Q+; Edmonds 2007, England, Q++].

ES 3.6 There is moderate evidence from England and the USA to suggest outpatients who had successfully quit perceived the following as important facilitators to successfully quitting: i) being able to dictate how many sessions of behavioural support they received [Edmonds 2007, England, Q++], ii) the option to have the support in an informal and non-clinical environment [Edmonds 2007, England, Q++], iii) receiving cessation support that is tailored to their needs as patients with mental

illness [Edmonds 2007, England, Q++], and iv) having the support involve either one or more persons with a history of mental illness who had successfully quit smoking [Dickerson 2011, USA, Q+; Morris 2009, USA, Q+].

ES 3.7 There is moderate evidence from England and the USA to suggest that outpatients perceive having a supportive smoking cessation advisor is an important facilitator to successfully quitting [Edmonds 2007, England, Q++; Morris 2009, USA, Q+]. In particular, they described the importance that the smoking cessation advisor should i) take a non-judgmental approach to quitting [Edmonds 2007, England, Q++], whilst being able to maintain a positive expectation in the patient's ability to quit smoking [Morris 2009, USA, Q+], ii) act as an advocate during the quit attempt [Edmonds 2007, England, Q++], and iii) have a good knowledge of mental health problems, and how smoking and quitting can impact on their mental health [Edmonds 2007, England, Q++].

ES 3.8 There is moderate evidence from the USA and Canada to suggest outpatients' perceive monetary incentives could be an effective intervention for smoking cessation [Goldberg 1996, Canada, MM++; Kelly 2010, USA, CC-].

ES 3.9 There is moderate evidence to suggest some inpatients' and outpatients' perceive they would find it easier to achieve success if their goal was to cut down on their smoking rather than aiming for complete smoking cessation [Lawn 2002, Australia, Q++; Ratschen 2010b, England, Q++].

ES 3.10 There is weak evidence to suggest inpatients' and outpatients' perceived quitting smoking resulted an improvement in communication with others and in forming new peer groups [Edmonds 2007, UK, ++; Mikhailovich 2008, Australia, MM-].

Applicability: The evidence has direct applicability to the current UK settings and/or practices. Three of the studies were conducted in the UK [Dickens 2005, England, S+; Edmonds 2007, England, Q++; Ratschen 2010b, England, Q++], and a further two studies were conducted in a country which was deemed to have a similar applicability to the UK setting [Lawn 2002, Australia, Q++; Mikhailovich 2008, Australia, MM-].



**QUESTION 1B. WHAT ARE THE VIEWS (KNOWLEDGE, ATTITUDES, AND BELIEFS) OF THE SERVICE PROVIDERS WITHIN THE NHS STOP SMOKING SERVICES AND MENTAL HEALTH STAFF WITHIN HOSPITALS, OUTPATIENT CLINICS AND THE COMMUNITY, INCLUDING INTENSIVE SERVICES IN PSYCHIATRIC UNITS AND SECURE HOSPITALS?**

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Thirty-two studies, one review and two discussion pieces reported the views of service providers regarding the barriers and facilitators that affect the delivery of effective smoking cessation and temporary abstinence interventions in the population of interest [Ashton 2010; Champion 2008; Dickens 2004; Essenmacher 2008; Edmonds 2007; Landow 1995; Lawn 2004; Lawn 2006; Lubman 2006; McNally 2010; Morris 2009; O'Donovan 2009; Parker 2012, Price 2007a, Price 2007b; Prochaska 2005; Prochaska 2006; Ratschen 2009a, Ratschen 2009, Ratschen 2010a, Sarna 2009; Scherer unpublished; Sharp 2009; Secker-Walker 1994; Sidani 2011; Stubbs 2004; Tong 2010; Weinberger 2008; Williams 2009; Williams 2011; Wye 2009; Wye 2010; Ziedonis 1997; Zvolensky 2005]. The methods and findings of the primary studies and the critical review are presented briefly in Table 3.

Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

**Table 3 Characteristics of included studies – Staff views (knowledge, attitudes and beliefs)**

<b>Author, year, quality</b>	<b>Aim of the study</b>	<b>Method, population, and setting</b>	<b>Location</b>
<b>Author:</b> Ashton <b>Year:</b> 2010 <b>Quality:</b> +	To assess mental health workers' attitudes to addressing patients' tobacco use and to identify any perceived barriers that prevent people with mental illness from receiving the support they require to tackle tobacco use	<b>Method:</b> Survey <b>Population:</b> Adult mental health workers <b>Sample size:</b> 324 <b>Setting:</b> Inpatient and community	Australia
<b>Author:</b> Dickens <b>Year:</b> 2004 <b>Quality:</b> +	To examine differences in attitudes and beliefs about smoking between nurses and other professional groups in a mental health setting	<b>Method:</b> Survey <b>Population:</b> Nurses and health professionals <b>Sample size:</b> 690 <b>Setting:</b> Inpatient	England
<b>Author:</b> Edmonds <b>Year:</b> 2007 <b>Quality:</b> ++	To examine the process of mental health professionals offering stop smoking support, exploring the experiences and perceptions of the participants in the one to one stop smoking intervention	<b>Method:</b> Evaluation and patient interviews <b>Population:</b> Mental health professionals <b>Sample size:</b> 40 <b>Setting:</b> Community	England
<b>Author:</b> Essenmacher <b>Year:</b> 2008 <b>Quality:</b> +	To determine staff's characteristics that are associated with attitudes about providing cessation services to veteran patients with psychiatric illness	<b>Method:</b> Survey and interviews <b>Population:</b> Clinical and non-clinical staff members <b>Sample size:</b> 150 in survey, 8 interviews <b>Setting:</b> Inpatient	USA
<b>Author:</b> Landow <b>Year:</b> 1995 <b>Quality:</b> -	To learn how physicians approach the problem of high smoking rates in psychiatric populations	<b>Method:</b> Survey <b>Population:</b> Mental health professionals <b>Sample size:</b> 128 <b>Setting:</b> Unclear	USA
<b>Author:</b> Lawn <b>Year:</b> 2004 <b>Quality:</b> ++	To compare experiences from two psychiatric institutions regarding smoking related problems	<b>Method:</b> Ethnographic <b>Population:</b> Ward staff <b>Sample size:</b> Not reported <b>Setting:</b> Inpatient	Australia
<b>Author:</b> Lawn <b>Year:</b> 2006 <b>Quality:</b> ++	To investigate the ethical thinking of a small sample of nurses with regard to smoking by mentally ill patients, in an attempt to understand and propose some reasons why psychiatric nurses have not been as influential as expected in smoking cessation in psychiatric settings	<b>Method:</b> Interviews <b>Population:</b> Nurses <b>Sample size:</b> 7 <b>Setting:</b> Inpatient and community	Australia
<b>Author:</b> Lubman <b>Year:</b> 2007 <b>Quality:</b> -	Psychiatrists should assess the smoking status of all patients, including their level of nicotine dependence and readiness to quit	<b>Method:</b> Survey <b>Population:</b> Psychiatrists and general practitioners <b>Sample size:</b> Approximately 600 psychiatrists and 480 general practitioners <b>Setting:</b> Community	Australia
<b>Author:</b> McNally <b>Year:</b> 2010 <b>Quality:</b> +	To examine whether smoking cessation services are following guidance on delivery of services to patients with mental illness	<b>Method:</b> Survey and interviews <b>Population:</b> NHS Stop Smoking Services staff <b>Sample size:</b> 27	England

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		<b>Setting:</b> Community	
<b>Author:</b> Morris <b>Year:</b> 2009 <b>Quality:</b> +	To understand the factors that impede and support tobacco cessation efforts from the perspective of both community mental health patients and providers	<b>Method:</b> Focus groups <b>Population:</b> Mental health administrators <b>Sample size:</b> 19 <b>Setting:</b> Community	USA
<b>Author:</b> O'Donovan <b>Year:</b> 2009 <b>Quality:</b> +	To examine nurses' smoking prevalence and their role in smoking cessation, particularly their attitudes towards health promotion	<b>Method:</b> Survey <b>Population:</b> Nurses <b>Sample size:</b> 430 <b>Setting:</b> Inpatient	South Ireland
<b>Author:</b> Parker <b>Year:</b> 2012 <b>Quality:</b> +	To implement a tailored tobacco dependence service in mental health settings and assess its impact, and barriers and facilitators to implementation	<b>Method:</b> Mixed methods <b>Population:</b> Mental health professional advisers supporting patients and staff who are smokers <b>Sample size:</b> Two advisors reporting on barriers and facilitators relating to 2038 community patients and 4 acute and 2 rehabilitation wards containing a total of 129 beds <b>Setting:</b> Inpatient and community	England
<b>Author:</b> Price <b>Year:</b> 2007a <b>Quality:</b> -	To explore psychiatrists' perceptions and practices relating to treating smoking in patients, and to examine whether these perceptions and practices varied by psychiatrists' characteristics	<b>Method:</b> Survey <b>Population:</b> Psychiatrists <b>Sample size:</b> 78 <b>Setting:</b> Community	USA
<b>Author:</b> Price <b>Year:</b> 2007b <b>Quality:</b> +	Practice and perceptions of smoking cessation activities among child and adolescent psychiatrists	<b>Method:</b> Survey <b>Population:</b> Psychiatrists <b>Sample size:</b> 184 <b>Setting:</b> Community	USA
<b>Author:</b> Prochaska <b>Year:</b> 2005 <b>Quality:</b> +	To assess the need for and interest in tobacco cessation curricula in psychiatric residency training	<b>Method:</b> Survey <b>Population:</b> Psychiatry residents <b>Sample size:</b> 105 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Prochaska <b>Year:</b> 2006 <b>Quality:</b> +	To evaluate, in a national survey of residency training directors, the need for and interest in tobacco cessation training in psychiatry residency programs	<b>Method:</b> Survey <b>Population:</b> Residency training directors <b>Sample size:</b> 114 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Ratschen <b>Year:</b> 2009a <b>Quality:</b> ++	To investigate staff knowledge and attitudes relating to smoking prevalence, dependence, treatment and the relationship between smoking and mental illness	<b>Method:</b> Survey <b>Population:</b> Mental health trust staff <b>Sample size:</b> 459 <b>Setting:</b> Inpatient	England
<b>Author:</b> Ratschen <b>Year:</b> 2009b <b>Quality:</b> +	To explore the practical implications of, and problems arising from, the implementation of a comprehensive smoke-free policy	<b>Method:</b> Interviews <b>Population:</b> Ward staff <b>Sample size:</b> 16	England

Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

		<b>Setting:</b> Inpatient	
<b>Author:</b> Sarna <b>Year:</b> 2009 <b>Quality:</b> -	To describe frequency of psychiatric nurses' self-reported interventions to address smoking, and to explore associations between nurses' demographic and professional characteristics and awareness of Tobacco Free Nurses and the 5A's	<b>Method:</b> Survey <b>Population:</b> Nurses <b>Sample size:</b> 100 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Scherer <b>Year:</b> Unpublished <b>Quality:</b> +	To assess the opinions of hospitalised patients, their relatives, and care team members about tobacco use in the hospitalised environment and smokers' dependence levels	<b>Method:</b> Survey and interviews <b>Population:</b> Care team staff <b>Sample size:</b> 48 <b>Setting:</b> Inpatient	Brazil
<b>Author:</b> Secker-Walker <b>Year:</b> 1994 <b>Quality:</b> +	To assess and compare the smoking cessation counselling activities of different health professional groups	<b>Method:</b> Survey <b>Population:</b> Mental health counsellors <b>Sample size:</b> 80 <b>Setting:</b> Community	USA
<b>Author:</b> Sharp <b>Year:</b> 2009 <b>Quality:</b> +	To assess psychiatric nurses' perspectives concerning tobacco dependence intervention	<b>Method:</b> Survey <b>Population:</b> Psychiatric nurses <b>Sample size:</b> 1381 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Sidani <b>Year:</b> 2011 <b>Quality:</b> +	To examine the smoking cessation beliefs of clinical mental health counsellors and their practices with clients	<b>Method:</b> Survey <b>Population:</b> Clinical mental health counsellors <b>Sample size:</b> 330 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Stubbs <b>Year:</b> 2004 <b>Quality:</b> +	To examine staff views on smoking at work in a large psychiatric hospital	<b>Method:</b> Survey <b>Population:</b> Ward staff <b>Sample size:</b> 599 <b>Setting:</b> Inpatient	England
<b>Author:</b> Tong <b>Year:</b> 2010 <b>Quality:</b> +	To describe the smoking prevalence, smoking cessation practices, and beliefs for multiple types of mental health professionals, and factors associated with self-reported delivery of tobacco dependence treatments	<b>Method:</b> Survey <b>Population:</b> Mental health professionals <b>Sample size:</b> 2804 (of which 400 psychiatrists) <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Weinberger <b>Year:</b> 2008 <b>Quality:</b> -	To examine the attitudes of clinicians regarding smoking cessation for psychiatric and substance abusing patients	<b>Method:</b> Survey <b>Population:</b> Mental health clinicians <b>Sample size:</b> 34 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Williams <b>Year:</b> 2009 <b>Quality:</b> +	To develop and implement a 2-day continuing education curriculum called "Treating Tobacco Dependence in Mental Health Setting"	<b>Method:</b> Survey <b>Population:</b> Mental health workers <b>Sample size:</b> 71 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Williams <b>Year:</b> 2011 <b>Quality:</b> -	To describe the reasoning behind the development of the comprehensive model for Mental Health Tobacco Recovery programme	<b>Method:</b> Review <b>Population:</b> N/A <b>Sample size:</b> N/A	USA

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		<b>Setting:</b> Unclear	
<b>Author:</b> Wye <b>Year:</b> 2009 <b>Quality:</b> ++	To identify smoking policies and procedures in public psychiatric inpatient units	<b>Method:</b> Survey <b>Population:</b> Nurse/unit managers <b>Sample size:</b> 123 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Wye <b>Year:</b> 2010 <b>Quality:</b> ++ (N.B. Same study as Wye 2009)	To describe the views of nurse managers regarding the provision of nicotine dependence treatment, and factors that nurse managers perceive to be determinants of nicotine dependence treatment provision	<b>Method:</b> Survey <b>Population:</b> Nurse/unit managers <b>Sample size:</b> 123 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Ziedonis <b>Year:</b> 1997 <b>Quality:</b> -	An evaluation of a smoking cessation programmes for smokers with schizophrenia	<b>Method:</b> Programme evaluation <b>Population:</b> N/A <b>Sample size:</b> 24 <b>Setting:</b> Community	USA
<b>Author:</b> Zvolensky <b>Year:</b> 2005 <b>Quality:</b> -	To gauge the degree of basic cessation counselling provided by practitioners specialising in anxiety treatment disorders	<b>Method:</b> Survey <b>Population:</b> Mental health staff <b>Sample size:</b> 75 <b>Setting:</b> Inpatient and community	USA

## Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

The findings of the studies are presented below based on themes and sub-themes relating to barriers and facilitators, with quotes to support the themes where possible.

The themes relating to the perceived barriers and facilitators are presented below in Table 4.

**Table 4 Synthesis framework for views of staff**

Theme	Subthemes	Number of studies discussing theme
Staff attitudes and beliefs regarding smoking in patients	Smoking as a personal choice Smoking as a means of self-medication Smoking as shared activity to build rapport Cigarettes as a mechanism of control	12
Staff attitudes towards smoking cessation in patients	Negative beliefs regarding quitting Positive beliefs regarding quitting Influence of staff smoking status on patients Roles and responsibilities of staff in quitting Perceived impact of quitting on mental illness	24
Perceived barriers and facilitators to quitting in patients	Motivation, nicotine dependence, psychosocial, and environmental factors	8
Staff skills and abilities	Confidence in providing smoking cessation support Adequacy of training	18
Staff perceptions of systems and policies	Priority of smoking cessation Time and other resources	15
Staff perceptions regarding interventions for smoking cessation in patients	Perceived effectiveness and safety of interventions Awareness of staff of services Lack of re-imburement Information and accessibility of support for patients Other factors reported to influence the provision of interventions for smoking cessation	16

## 1. STAFF ATTITUDES AND BELIEFS REGARDING SMOKING IN PATIENTS

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Twelve studies and one discussion piece discussed staff attitudes to smoking. The theme is sub-divided into a) smoking as a personal choice, b) smoking as shared activity to build rapport, and c) cigarettes as mechanisms of control.

### A. SMOKING AS A PERSONAL CHOICE

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In six studies, clinical and non-clinical staff thought tobacco use was a personal choice of the patient [Ashton 2010, Australia, S+; Dickens 2004, England, S+; Essenmacher 2008, USA, MM+; Lawn 2004, Australia, Q++; Lawn 2006, Australia, Q++; Williams 2009, USA, S+].

*“If they choose to.”, “Up to the individual.”, “They are adults and can decide for themselves.”*  
[Dickens 2004, England, S+]

In one study, nursing staff expressed the view that the patients shouldn't have to alter their smoking behaviour following admission to a psychiatric setting [Lawn 2006, Australia, Q++].

*“I just think everyone has got the right to choose to do what they want to do.... They were smoking before they were detained so what rights have we to stop them from smoking once they're detained.”* [Lawn 2006, Australia, Q++]

Nurses and ward staff expressed views that they thought patients smoked because they enjoyed smoking and found it pleasurable [Lawn 2006, Australia, Q++], smoking relieved boredom [Ratschen 2009b, England, Q+; Lawn 2006, Australia, Q++], and staff didn't believe that smoking should be denied [Lawn 2006, Australia, Q++].

*“When they're [on the locked wards], they've got so little anyway, that's one of the pleasures that they've got.”* [Lawn 2006, Australia, Q++]

*“I have the impression with those patients that, often, they are really fixated on the nicotine, and they look forward to going to smoke, and it's one of their main things in life.”* [Ratschen 2009b, England, Q+]

In two studies, ward staff perceived patients with severe mental illness to have very little to look forward to [Lawn 2004, Australia, Q++], and it was used as a coping mechanism as it was “the one thing” to look forward to when everything else that used to be familiar to them couldn't be accessed following admission as an inpatient [Ratschen 2009b, England, Q+].

*“In my hearts of hearts, with patients with schizophrenia, I feel that they haven't got much left for them, so good luck to them. If they want to smoke, let them.”* [Lawn 2004, Australia, Q++]

In three studies, nurses, mental health administrators, and ward staff also believed cigarettes were a priority in many patients' lives, and were prioritized over other concerns [Lawn 2006, Australia, Q++; Morris 2009, USA, Q+; Ratschen 2009a, England, S++].

*"They [mental health consumers] don't care how much they spend on cigarettes. Their cigarettes are so important to them, it doesn't matter."* [Morris 2009, USA, Q+]

Additionally, a survey of 123 unit managers thought patients with mental health conditions usually have enough problems without having the additional worry regarding their smoking [Wye 2010, Australia, S++].

#### B. SMOKING AS A MEANS OF SELF-MEDICATION

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In two studies, there was the perception from nursing and ward staff that cigarettes were administered as a means of self-medication, to control symptoms of mental illness [Ratschen 2009a, England, S++; Lawn 2006, Australia, Q++].

#### C. SMOKING AS SHARED ACTIVITY TO BUILD RAPPORT

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In two studies, nursing and ward staff reported that smoking was used as a means of developing a rapport with the patients [Lawn 2004, Australia, Q++; Lawn 2006, Australia, Q++].

*"Part of working with really difficult clients is trying to find an entry point where you can develop rapport with them. And what was more easy than sitting around with them and having a smoke."* [Lawn 2004, Australia, Q++]

However, in a survey of 123 unit managers, only a minority of them agreed or strongly agreed that it is sometimes useful for staff to smoke with a patient to build rapport or trust (30%) [Wye 2010, Australia, S++].

#### D. CIGARETTES AS A MECHANISM OF CONTROL

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In three studies, nursing and ward staff and mental health administrators described smoking had been and is still currently used by staff as a behavioural reward [Lawn 2004, Australia ++; Lawn 2006, Australia, Q++; Morris 2009, USA, Q+]; including being used as a reward or punishment for adherence to treatment medications [Ratschen 2010a, Discussion piece], and as currency in inpatient settings [Lawn 2006, Australia, Q++].

*"If you wanted the patient to do something, you could give them a cigarette and they'd probably do it. In fact, I can remember my first ward, the charge sister saying, 'Go and run this errand and I'll give you a cigarette. Go and make your bed and I'll give you a cigarette...' It was how you go things done."* [Lawn 2006, Australia, Q++]



In one study, ward staff reported that the physical structure of the inpatient setting was found to promote a power play between patients and staff [Lawn 2004, Australia, Q++].

*“If they didn’t smoke, they wouldn’t come back to the door every half-an-hour either. There’s something about having a closed door between us that makes a difference. It’s a real power thing... Staff seems to adopt a certain mentality of control just because of the environment. It’s very easy to give people cigarette. It’s easier than not giving them.” [Lawn 2004, Australia, Q++]*

In three studies, nursing and ward staff reported the use of cigarettes as a ‘therapeutic’ means to help a smooth running of the inpatient ward environment, by, they believe, reducing aggression [Lawn 2004, Australia, Q++; Lawn 2006; Australia, Q++; Stubbs 2004, England, S+].

*“From both a nurses and client management perspective, if you can keep the ward running smoothly and minimising the amount of aggression, by allowing them to smoke, then allowing them to smoke facilitates that. By all means, I’d rather have a smoother running ward than go home with a broken arm.” [Lawn 2004, Australia, Q++]*

*“I accept that [smoking] affects their health in a derogatory way; however, I think the greater priority is the immediate client and staff safety. And if withholding cigarettes is going to increase client irritability and the potential for aggression and violence, I think the long-term decline in their health is the lesser of the two evils, because of the potential that the immediate violence can cause.” [Lawn 2006, Australia, Q++]*

#### EVIDENCE STATEMENTS

ES 4.1 There is strong evidence to suggest that clinical and non-clinical staff mental health staff in inpatient and outpatient settings believe tobacco use is a personal choice of the patient [Ashton 2010, Australia, S+; Dickens 2004, England, S+; Essenmacher 2008, USA, MM+; Lawn 2004, Australia, Q++; Lawn 2006, Australia, Q++; Williams 2009, USA, S+]. There is moderate evidence to suggest ward staff in inpatient and outpatient settings perceived that patients experience enjoyment from smoking and use cigarettes as a coping mechanism, and as a means of self-medication to control mental illness symptoms [Ratschen 2009b, England, Q+; Lawn 2006, Australia, Q++]. There is moderate evidence to suggest that ward staff and mental health administrators in inpatient and outpatient settings perceive cigarettes to fulfill an especially important function in the lives of patients with mental illness [Morris 2009, USA +; Ratschen 2009a, England, S++].

ES 4.2 There is strong evidence from Australia and the USA to suggest nursing and mental health ward staff, and mental health administrators perceive cigarettes are used as a form of currency or means of control to achieve compliance in inpatients with mental health conditions [Lawn 2004, Australia, Q++; Lawn 2006, Australia, Q++; Morris 2009, USA, Q+]; and there is strong evidence to suggest nursing and ward staff and unit administrators perceive cigarettes are used to develop a rapport with inpatients [Lawn 2004, Australia, Q++; Wye 2010, Australia, S++].

ES 4.3 There is strong evidence from Australia and England to suggest nursing and mental health ward staff from predominately inpatient settings believe allowing patients to continue to smoke in hospital, as opposed to withdrawing the provision through banning smoking, will reduce the likelihood of aggression and violence, thereby ensuring a smoother running of an inpatient setting [Lawn 2004, Australia, Q++; Lawn 2006; Australia, Q++; Stubbs 2004, England, S+].

Applicability: Most of the evidence has direct applicability to the current UK settings and/or practices. Four studies were conducted in the UK [Dickens 2004, England, S+; Ratschen 2009a, England, S++; Ratschen 2009b, England, Q+; Stubbs 2004, England, S+], and a further four studies were conducted in countries which were deemed to have similar applicability to that of the UK setting [Lawn 2006, Australia, Q++; Ashton 2010, Australia, S+; Lawn 2004, Australia, Q++; Wye 2010, Australia, S++].

## 2. STAFF ATTITUDES TOWARDS SMOKING CESSATION IN PATIENTS

Twenty-four studies and one discussion piece discussed staff attitudes to smoking. The theme is subdivided into a) negative beliefs regarding quitting, b) positive beliefs regarding quitting, c) influence of staff smoking status on patients, d) roles and responsibilities of staff in quitting, and e) perceived impact of quitting on mental illness.

### A. NEGATIVE BELIEFS REGARDING QUITTING

There is a popular misconception that patients with mental health conditions are unable to quit smoking [Ratschen 2010a, Discussion piece]. This barrier was discussed in eight studies from the point of view of the psychiatrists and nursing staff members and mental health managers [Edmonds 2007, England, Q++; Lawn 2004, Australia, Q++; Morris 2009, USA, Q+; Price 2007a, USA, S-; Price 2007b, USA, S+; Sharp 2009, USA, S+; Stubbs 2004, England, S+; Wye 2010, Australia, S++].

In particular, several studies reported that clinical and non-clinical staff members and mental health managers believed that patients with mental illnesses are unable to stop smoking [Edmonds 2007, England, Q++; Essenmacher 2008, USA, MM+; Sharp 2009, USA, S+], usually did not wish to quit [Price 2007b, USA, S+; Sidani 2011, USA, S+; Wye 2010, Australia, S++], would be non-responsive to their suggestions regarding quitting smoking [Price 2007b, USA, S+; Sidani 2011, USA, S+], or addressing nicotine dependence was “too much to take onboard” and was futile to undertake [Ratschen 2009b, England, Q+].

*“Many have the attitude that people with mental health problems ‘can’t stop smoking’, ‘can’t give up’, will ‘never be able to stop.’”* [Edmonds 2007, England, Q++]

In one study, psychiatrists reported previous failures in persuading patients to quit was a barrier to talking about smoking cessation to their patients [Price 2007b, USA, S+].

In three studies, ward staff, psychiatrists and general practitioners, and mental health administrators reported they sometimes actively discouraged patients from quitting smoking [Morris 2009, USA, Q+; Lubman 2006, Australia, S-; Ratschen 2009b, England, Q+]. Psychiatrists, general practitioners, and mental health administrators described having advised patients against quitting smoking due to the perception that the patient had too many other issues in their lives already and smoking cessation would be another one, that it was ‘not worth the effort’ [Morris 2009, USA, Q+], or that reducing smoking consumption would not be helpful in adolescents with psychosis or depression [Lubman 2006, Australia, S-].

*“They’re poorly and they’re going through enough as it is. For them to have to stop smoking as well is even more traumatic. I always say...[] you need to get yourself right before you can stop smoking.”* [Ratschen 2009b, England, Q+]

## B. POSITIVE BELIEFS REGARDING QUITTING

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Despite the reported negative beliefs regarding the ability for patients with mental health conditions to quit smoking, the results from 10 studies indicated that clinical and non-clinical mental health staff thought it was important for smoking cessation to be addressed in their patients [Ashton 2010, Australia, S+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Ratschen 2009b, England, Q+; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Stubbs 2004, England, S+; Tong 2010, USA, S+; Weinberger 2008, USA, S-; Wye 2010, Australia, S++].

*"Tobacco use leads to long term poor health and financial problems" and "Clients are in crisis and are often long term smokers, I think it is difficult but important."* [Ashton 2010, Australia, S+]

In two studies, mental health workers, nurses and unit managers also indicated that they felt that it was important for the patient to have the option to stop smoking if they wanted to [Ashton 2010, Australia, S+; Wye 2010, Australia, S++].

*"I believe people should have a choice if they want to smoke or not.", "Important if client wishes to make changes."* [Ashton 2010, Australia, S+]

## C. INFLUENCE OF STAFF SMOKING STATUS ON PATIENTS

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In six studies, some nurses and ward staff and non-clinical staff stated that their own smoking status was responsible for their negative views regarding encouraging smoking cessation and reduction in patients with mental illness [Dickens 2004, England, S+; Edmonds 2007, England, Q++; Essenmacher 2008, USA, MM+; Lawn 2004, Australia, Q++; Prochaska 2005, USA, S+; Sarna 2009, USA, S-].

*"To tell you honestly, it's probably my own nicotine addiction that influences how I view my patients' needs. When I'm stressed about something, I usually have a cigarette and pace."* [Lawn 2004, Australia, Q++]

In one study, mental health administrators identified that the overt use of tobacco by other staff members was a barrier for their patients to stop smoking in an inpatient setting as it undermined their role [Morris 2009, USA, Q+].

*"I'm busy talking to my folks about better health maintenance overall, including smoking cessation and weight loss and exercise, and they're out there smoking with their case manager."* [Morris 2009, USA, Q+]

In one study, inpatient clinical and non-clinical staff thought their mental health hospital should provide support for staff members to assist them with trying to quit smoking through taking a multidisciplinary approach to the support offered [Essenmacher 2008, USA, MM+].

#### D. ROLES AND RESPONSIBILITIES OF STAFF IN QUITTING

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In three studies, psychiatrists and clinical and non-clinical mental health workers expressed the opinion that it was not their responsibility or their area of expertise to provide smoking cessation support [Ashton 2010, Australia, S+; Essenmacher 2008, USA, MM+; Price 2007b, USA, S+]; additionally in one UK survey of over 400 clinical mental health professionals, a minority of staff agreed it was their responsibility as a mental health professional to address smoking in their patients [Ratschen 2009a, England, S++].

*“My patients are not interested; I do not think I am the smoking police.”* [Ashton 2010, Australia, S+]

In contrast, psychiatrists and practice nurses in one study reported that they felt it was their role to help patients to stop smoking, including increasing their motivation to quit [Williams 2009, USA, S+].

In two studies, community based psychiatrists thought patients’ had a preoccupation with other health or medical complaints and therefore didn’t talk to their patients about smoking cessation [Price 2007a, USA, S-; Price 2007b, USA, S+].

#### E. PERCEIVED IMPACT OF QUITTING ON MENTAL HEALTH

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A discussion piece reported it can be difficult to distinguish between withdrawal symptoms and the symptoms of mental illness as the symptoms can overlap considerably, therefore staff may misinterpret nicotine withdrawal as deterioration in mental health [Campion 2008, Discussion Piece]. It was noted that ward staff incorrectly attributed nicotine withdrawal as a sign of impending illness deterioration in one study [Lawn 2004, Australia, Q++].

In five studies, clinical and non-clinical mental health staff believed that quitting smoking would have a detrimental effect on the patients’ mental health [Dickens 2004, England, S+; Lawn 2004, Australia, Q++; Scherer unpublished, Brazil, MM+; Sidani 2011, USA, S+; Stubbs 2004, England, S+], particularly relating to increased risk of agitation and aggression [Scherer unpublished, Brazil, MM+]. However, in a further study mental health clinicians were uncertain whether quitting would result in an exacerbation of psychiatric symptoms [Weinberger 2008, USA, S-]. One study reported that during a smoking cessation program study no exacerbations of psychiatric symptoms were noted in patients who had periods of extended abstinence [Ziedonis 1997, USA, PE-].

One study reported that mental health professionals perceived the stress of nicotine withdrawal would significantly impair the effectiveness of medical therapy for mental illnesses [Landow 1995, USA, S-].

#### EVIDENCE STATEMENTS

ES 5.1 There is strong evidence to suggest that psychiatrists and nursing staff members and mental health managers from inpatient and outpatient settings have the misconception that patients with mental health conditions are unable to stop smoking [Edmonds 2007, England, Q++; Lawn 2004, Australia, Q++; Morris 2009, USA, Q+; Price 2007a, USA, S-; Price 2007b, USA, S+; Sharp 2009, USA, S+; Stubbs 2004, England, S+; Wye 2010, Australia, S++].

ES 5.2 Despite the evidence that staff believe patients with mental health conditions are unable to stop smoking, there is strong evidence to suggest that clinical and non-clinical mental health staff from inpatient and outpatient settings feel that patients' smoking should be addressed [Ashton 2010, Australia, S+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+; Weinberger 2008, USA, S-], and moderate evidence that they should have the option to stop smoking if they so wished [Ashton 2010, Australia, S+]. Furthermore, there is moderate evidence to suggest that some ward staff, psychiatrists and general practitioners, and mental health administrators from inpatient and outpatient settings actively discourage patients from quitting [Lubman 2006, Australia, S-; Morris 2009, USA, Q+; Ratschen 2009b, England, Q+].

ES 5.3 There is strong evidence to suggest that the smoking status of nurses, ward staff and non-clinical staff predominately from inpatient settings is a barrier to providing and supporting smoking cessation, where smokers are more likely to have negative views about smoking cessation and reduction [Dickens 2004, England, +; Edmonds 2007, England, Q++; Essenmacher 2008, USA, MM+; Lawn 2004, Australia, Q++; Prochaska 2005, USA, S+; Sarna 2009, USA, S-]. Additionally, there is weak evidence to suggest mental health administrators from outpatient settings perceive the overt use of tobacco by staff members was a barrier to patients' quitting smoking [Morris 2009, USA, Q+]. Furthermore, there was weak evidence to suggest clinical and non-clinical staff perceived that smoking cessation support for staff members should be provided in inpatient settings [Essenmacher 2008, USA, MM+].

ES 5.4 The evidence is mixed regarding the beliefs of whether staff thought providing smoking cessation was part of their role, with strong evidence from four studies to suggest that the majority of psychiatrists and clinical and non-clinical mental health workers from inpatient and outpatient settings did not feel that providing smoking cessation support was part of their role [Ashton 2010, Australia, S+; Essenmacher 2008, USA, MM+; Price 2007b, USA, S+; Ratschen 2009a, England, S++]. However, there is weak evidence from one study of psychiatrists and practice nurses from inpatient and outpatient settings to suggest it should be part of their role [Williams 2009, USA, S+]. There is weak evidence to suggest community based psychiatrists perceived patients had a preoccupation with other health or medical complaint, and thus smoking cessation would not be a priority for patients [Price 2007a, USA, S-; Price 2007b, USA, S+].

ES 5.5 There is moderate evidence to suggest that clinical and non-clinical mental health staff from inpatient settings perceive quitting smoking would have a detrimental effect on the mental health symptoms of the patient [Dickens 2004, England, S+; Lawn 2004, Australia, Q++; Scherer unpublished, Brazil, MM+; Sidani 2011, USA, S+; Stubbs 2004, England, S+].

ES 5.6 There is very weak evidence from the USA to suggest that mental health professionals perceive the impact of smoking cessation on the effectiveness of medical therapy for mental illnesses is a barrier to implementing smoking cessation support in patients (setting unclear) **[Landow 1995, USA, S-]**.

Applicability: Most of the evidence has direct applicability to the current UK settings and/or practices. Five studies were conducted in the UK **[Dickens 2004, England, S+; Edmonds 2007, England, Q++; Ratschen 2009a, England, S++; Ratschen 2009b, England, Q+; Stubbs 2004, England, S+]**, and a further five studies were conducted in countries which were deemed to have similar applicability to that of the UK setting **[Ashton 2010, Australia, S+; O'Donovan 2009, Republic of Ireland, S+; Lawn 2004, Australia, Q++; Lubman 2006, Australia, S-; Wye 2010, Australia, S++]**.

### 3. PERCEIVED BARRIERS AND FACILITATORS TO QUITTING IN PATIENTS

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Eight studies reported the staff views on the perceived barriers and facilitators the patients had regarding smoking cessation. The identified barriers and facilitators related to motivation, nicotine dependence, psychosocial, and environmental factors.

#### A. MOTIVATION, NICOTINE DEPENDENCE, PSYCHOSOCIAL, AND ENVIRONMENTAL FACTORS

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In one study, mental health workers explicitly reported they believed boredom was a barrier to quitting and reducing cigarette consumption [Ashton 2010, Australia, S+], and they thought “*Mental health clients [were] already highly stressed and vulnerable*” and smoking cessation would increase this [Ashton 2010, Australia, S+].

Furthermore, two studies reported that mental health administrators and psychiatric nurses perceived patients’ motivation to quit smoking was low [Morris 2009, USA, Q+; Sharp 2009, USA, S+], and in one further study, mental health clinicians strongly agreed that a patient’s motivation was the most important factor for a successful quit attempt [Weinberger 2008, USA, S-].

In one study, mental health workers reported strong tobacco dependence was a major barrier for patients [Ashton 2010, Australia, S+].

In one study, mental health workers reported they thought social isolation was a barrier to quitting and reducing cigarette consumption [Ashton 2010, Australia, S+]. Additionally, in a further study, a common perspective held by mental health administrators was that patients who successfully quit smoking would lose their peer group [Morris 2009, USA, Q+].

*“If they [mental health patient] stop and their friends are still smoking, who do they hang out with?” [Morris 2009, USA, Q+]*

In two studies, ward staff in inpatient settings perceived that a lack of meaningful activities was as a barrier to patients’ stopping smoking [Lawn 2004, Australia, Q++; Ratschen 2009b, England, Q+].

*“In the locked ward I don’t think there’s much in the way of one-to-one therapeutic activity that happens. It’s kind of, ‘Let’s wait for the medication to work’. There’s just nothing to do. The only normal thing to do at the time is to smoke” [Lawn 2004, Australia, Q++]*

In one study, clinical and non-clinical staff thought the psychiatric hospital they worked in should offer alternative therapies including tai chi and yoga as a facilitator for smoking cessation [Essenmacher 2008, USA, MM+].

One study assessed the implementation of a tailored tobacco dependence service in mental health settings in the UK, and assessed its impact, and barriers and facilitators to implementation [Parker 2012, England, MM+]. This study found that the mental health professional advisors recruited to support patients and staff with tobacco dependence identified factors relating to motivation and



attention can pose barriers to engaging with and retaining particularly inpatients in a tobacco dependence service.

#### EVIDENCE STATEMENTS

ES 6.1 There is moderate evidence to suggest mental health staff and administrators from inpatient and outpatient settings perceived boredom, increased stress, tobacco dependence, and a lack of motivation as barriers to quitting smoking in patients with mental illness [**Ashton 2010, Australia, S+; Morris 2009, USA, Q+; Sharp 2009, USA, S+**].

ES 6.2 There is moderate evidence to suggest ward staff from an inpatient setting thought a lack of activities was a barrier for patients' quitting smoking [**Lawn 2004, Australia, Q++; Ratschen 2009b, England, Q+**], and there was weak evidence to suggest that clinical and non-clinical staff from an inpatient setting perceived that introducing meaningful activities would act as a facilitator for smoking cessation [**Essenmacher 2008, USA, MM+**].

ES 6.3 There is moderate evidence to suggest mental health staff and administrators from inpatient and outpatient settings thought social isolation was a barrier for patient's quitting smoking [**Ashton 2010, Australia, S+; Morris 2009, USA, Q+**].

ES 6.4 There is recent evidence to suggest that factors related to motivation and attention can pose barriers to engaging with and retaining particularly inpatients in a tobacco dependence service [**Parker 2012, England, MM+**].

Applicability: The majority of the evidence has direct applicability to the current UK settings and/or practices. Two studies were conducted in the UK [**Parker 2012, England, MM+; Ratschen 2009b, England, Q+**], and a further two studies were conducted in a country which was deemed to have similar applicability to that of the UK setting [**Ashton 2010, Australia, S+; Lawn 2004, Australia, Q++**].

#### 4. STAFF SKILLS AND KNOWLEDGE

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Eighteen studies and one discussion piece discussed staff skills and abilities to provide smoking cessation support. The theme is sub-divided into a) confidence in providing smoking cessation support, and b) adequacy of training.

##### A. CONFIDENCE IN PROVIDING SMOKING CESSATION SUPPORT

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In six studies, psychiatrists, ward staff, psychiatric nurses and mental health counsellors often expressed the opinion that they lacked the confidence to provide smoking cessation support or recommend pharmacotherapy to patients with mental health conditions [Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Ratschen 2009a, England, S++; Sharp 2009, USA, S+; Sidani 2011, USA, S+]. In particular, psychiatric nurses didn't feel confident regarding their ability to help their patients quit even though they felt knowledgeable regarding stop smoking medications and had relatively high levels of knowledge regarding counselling strategies [Sharp 2009, USA, S+]. In contrast, the majority of clinical and non-clinical staff in another study in an inpatient setting felt between moderately and extremely confident in providing smoking cessation [Essenmacher 2008, USA, MM+]. There was some evidence that clinical and non-clinical staff that had ever smoked were less likely to feel confident in providing smoking cessation support, for example, [Essenmacher 2008, USA, MM+].

In one study, 6 months of training in one-to-one services resulted in mental health professionals feeling more confident to raise awareness and discuss smoking and stop smoking services with clients and their colleagues, and feel more confident in recommending which smoking cessation pharmacotherapy should be used [Edmonds 2007, England, Q++].

##### B. ADEQUACY OF TRAINING

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**As a Barrier:** A common barrier to implementing smoking cessation advice or support was the lack of training in smoking cessation. In 13 studies clinical and non-clinical staff expressed their lack of preparedness for addressing smoking cessation in their clients was due to a lack of training or education [Essenmacher 2008, USA, MM+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Prochaska 2006, USA, S+; Secker-Walker 1994, USA, S+; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+; Zvolensky 2005, USA, S-].

In a UK survey, approximately half of 459 clinical mental health professionals reported having attended training related to smoking [Ratschen 2009a, England, S++]. Respondents from the survey generally believed smoking prevalence was higher among patients with mental illness compared to the general population; however, approximately a fifth of respondents incorrectly believed smoking prevalence was lower. Additionally, more than a third of respondents incorrectly believed nicotine and carbon monoxide caused cancer [Ratschen 2009a, England, S++]. In particular, psychiatrists, mental health staff and nurses reported insufficient time was allocated to smoking cessation and tobacco dependence in their undergraduate curriculum [Sharp 2009, USA, S+; Prochaska 2005, USA, S+; Williams 2009, USA, S+], during residency, continuing medical education or during their job [Prochaska 2005, USA, S+]. Furthermore, a lack of training regarding smoking cessation medications was one of the main barriers for not prescribing NRT in a study of community based psychiatrists for

adolescent and child patients with mental health conditions [Price 2007b, USA, S+]. Additionally, fewer than half of the respondents from a survey of 123 managers of psychiatric inpatients units reported that their unit provides any type of staff training in smoking assessment or smoking care [Wye 2009, Australia, S++].

**As a Facilitator:** A common facilitator to implementing smoking cessation advice or support was providing staff with training for smoking cessation, and potentially making this mandatory at all levels to ensure a greater awareness [Ratschen 2010a, Discussion piece]. A literature review of primary studies reported, “*In order for cessation programmes to develop and be successful, staff need to be education about evidence-based tobacco dependence treatment practices. Education can also help to improve attitudes about the hope for successful treatment and encourage providers to offer alternatives to smoking*” [Williams 2011, Review, -].

Four studies found that mental health professionals and administrators identified that more training in smoking cessation education would be helpful [Edmonds 2007, England, Q++; Morris 2009, USA, Q+; O’Donovan 2009, Republic of Ireland, S+; Ratschen 2009b, England, Q+], in particular relating to information regarding withdrawal symptoms and the potential effect on some medications from reducing or quitting smoking.

In particular, staff education was identified as a crucial component by mental health administrator staff, with staff preferring to have the training located onsite using user-friendly, manualised tools. The study questioned staff regarding the content of the education, and staff thought it should contain information about the existing evidence base and clinical guidance for how best to approach mental health patients, the harms of smoking versus the potential benefits of symptom control [Morris 2009, USA, Q+].

Furthermore, a study of 114 respondents from residency training programmes reported that several programmes didn’t contain smoking cessation training because it was perceived that the focus of the training should address the management of a patient’s psychiatric symptoms. However, half of the programmes addressed treatment of nicotine dependence in their curriculum with some additionally providing relevant clinical experiences, such as leading smoking cessation groups, with psychiatric or substance abusing populations. Additionally, the majority of the faculty who provided the training in tobacco treatment held expertise in both smoking cessation and working with patients with mental health conditions [Prochaska 2006, USA, S+].

In one study, mental health administrator staff reported that they perceived the content of a successful smoking cessation training package would include positive expectations of success in quitting from both staff and patients [Morris 2009, USA, Q+].

*“[Smoking is] something that you just keep coming back to. You talk about it every single time you see the consumer.”* [Morris 2009, USA, Q+]

In a UK survey of over 400 clinical mental health professionals, respondents who had attended training were significantly more likely to correctly know that higher doses of certain antipsychotic medications are needed in patients who smoke [Ratschen 2009a, England, S++].

#### EVIDENCE STATEMENTS

ES 7.1 There was strong evidence to suggest that psychiatrists, ward staff, psychiatric nurses and mental health counsellors from inpatient and outpatient settings felt a lack of confidence in providing smoking cessation support to patients with mental health conditions [Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Ratschen 2009a, England, S++; Sharp 2009, USA, S+; Sidani 2011, USA, S+], even though some staff felt knowledgeable regarding the harms of smoking and stop smoking strategies. There was moderate evidence to suggest education in one-to-one services resulted in mental health professionals from a community setting feeling more confident to provide smoking cessation support to patients with mental health conditions [Edmonds 2007, England, Q++].

ES 7.2 There was strong evidence to suggest that a lack of training during their education and whilst in post was directly responsible for the lack of preparedness that clinical and non-clinical staff from inpatient and outpatient settings felt towards implementing smoking cessation strategies [Essenmacher 2008, USA, MM+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Secker-Walker 1994, USA, S+; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+; Zvolensky 2005, USA, S-].

ES 7.3 There was moderate evidence from one large UK survey to suggest clinical mental health professionals from an inpatient setting had a lack of knowledge regarding the prevalence of smoking and tobacco addiction in patients with mental illness, and half of the respondents lacked any formal training in smoking cessation [Ratschen 2009a, England, S++].

ES 7.4 There was strong evidence to suggest that mental health professionals and administrators from inpatient and outpatient settings described that more training in smoking cessation would be helpful [Edmonds 2007, England, Q++; Morris 2009, USA, Q+; O'Donovan 2009, Republic of Ireland, S+], in particular it was suggested that the training should be located onsite using user-friendly, manualised tools and should contain information regarding how best to approach mental health patients, the harms of smoking versus the potential benefits of symptom control [Morris 2009, USA, Q+], and the impact smoking reduction and cessation can have on some medications [Ratschen 2009b, England, Q+]. There was moderate evidence to suggest including the treatment of nicotine dependence, with relevant clinical experiences (such as leading smoking cessation groups) in the curriculum of residency programmes would facilitate providing smoking cessation support for patients with mental health conditions [Prochaska 2006, USA, S+]. Additionally, there was weak evidence to suggest that mental health administrator staff perceived a positive expectation of success at quitting would be an essential component of a successful smoking cessation training package [Morris 2009, USA, Q+].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Three studies were conducted in the UK [Edmonds 2007, England, Q++; Ratschen 2009a, England, S++; Ratschen 2009b, England, Q+], and a further two studies were conducted in countries which were deemed to have similar applicability to that of the UK setting [O'Donovan 2009, Republic of Ireland, S+; Wye 2010, Australia, S++].

## 5. STAFF PERCEPTIONS OF SYSTEMS AND POLICIES

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Fourteen studies discussed the impact that systems and policies have on providing smoking cessation support to patients with mental health conditions. This theme is sub-divided into a) priority of smoking cessation, and b) time and other resources.

### A. PRIORITY OF SMOKING CESSATION

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In six studies, clinical and non-clinical mental health professionals and administrators expressed a major barrier to offering stop smoking support was that it was not a priority in their service or their workload [Edmonds 2007, England, Q++; Morris 2009, USA, Q+; Price 2007b, USA, S+; Prochaska 2006, USA, S+; Sharp 2009, USA, S+; Williams 2009, USA, S+]. However, in a survey of 123 unit managers the majority of them reported smoking cessation was as important as other roles within their unit, and should be an integral function of their unit [Wye 2010, Australia, S++].

In a further study, three quarters of respondents from a survey of service managers reported the commitment of their local mental health trust as 'none' or 'not enough'. Targets for treating people with mental illnesses for smoking cessation were only set by a minority of services (11%) [McNally 2010, England, MM+].

### B. TIME AND OTHER RESOURCES

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In nine studies, clinical and non-clinical mental health professionals reported insufficient time as a barrier to providing smoking cessation to patients [Ashton 2010, Australia, S+; Edmonds 2007, England, Q++; Essenmacher 2008, USA, MM+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Price 2007b, USA, S+; Sidani 2011, USA, S+; Williams 2009, USA, S+]; with only approximately half of staff in a survey in the UK reported that they could make time to deal with patients' nicotine dependence within their working routine [Ratschen 2009a, England, S++].

*"Time restraints often mean other issues increase in priorities"* [Ashton 2010, Australia, S+]

#### EVIDENCE STATEMENTS

ES 8.1 There is strong evidence to suggest clinical and non-clinical mental health professionals and administrators predominately from outpatient settings perceive the lack of prioritising smoking cessation support either in the mental health service or as part of the staff's workload was a major barrier to offering stop smoking support [Edmonds 2007, England, Q++; Morris 2009, USA, Q+; Price 2007b, USA, S+; Prochaska 2006, USA, S+; Sharp 2009, USA, S+; Williams 2009, USA, S+].

ES 8.2 There is weak evidence to suggest that service managers from outpatient settings perceived the lack of setting targets for treating patients with mental health conditions within services in the UK is a barrier to delivering stop smoking support to these patients [McNally 2010, England, MM+].

ES 8.3 There is strong evidence to suggest that clinical and non-clinical mental health professionals from inpatient and outpatient settings perceive that they are not able to dedicate sufficient time to provide smoking cessation support during their role due to conflicting priorities [Ashton 2010, Australia, S+; Edmonds 2007, England, Q++; Essenmacher 2008, USA, MM+; O'Donovan 2009, Republic of Ireland, S+; Price 2007a, USA, S-; Price 2007b, USA, S+; Ratschen 2009a, England, S++; Sidani 2011, USA, S+; Williams 2009, USA, S+].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Three studies were conducted in the UK [Edmonds 2007, England, Q++; McNally 2010, England, MM+; Ratschen 2009a, England, S++], and a further two studies were conducted in countries which were deemed to have similar applicability to that of the UK setting [Ashton 2010, Australia, S+; O'Donovan 2009, Republic of Ireland, S+].

## 6. STAFF PERCEPTIONS REGARDING INTERVENTIONS FOR SMOKING CESSATION IN PATIENTS

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Fourteen studies, one review and a discussion piece discussed the barriers and facilitators relating to staff perceptions regarding interventions for smoking cessation. This theme was sub-divided into a) perceived effectiveness and safety of interventions, b) accessibility and awareness of interventions and services offered, c) lack of re-imburement, and d) suggested support for patients.

### A. PERCEIVED EFFECTIVENESS AND SAFETY OF INTERVENTIONS

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Three studies of mental health service staff and psychiatrists perceived a lack of effectiveness, safety and compliance issues with the use of NRT in mental health populations for smoking cessation [Morris 2009, USA, Q+; Price 2007b, USA, S++; Scherer unpublished, Brazil MM+; Sidani 2011, USA, S++].

*“I know the nicotine patch and I know that it doesn’t work.”* [Scherer unpublished, Brazil, MM+].

In one study, mental health service staff thought there was not sufficient evidence to show that cessation strategies, such as counselling and NRT, were effective [Morris 2009, USA, Q+].

*“The problem is that there isn’t actually evidence that it [cessation strategies] works.”* [Morris 2009, USA, Q+]

In a survey of clinical mental health counsellors, only a third thought it was likely that recommending pharmacotherapy to clients who smoked would help more clients to quit [Sidani 2011, USA, S+].

However, in one study, the majority of physicians believe that face-to-face counselling (75%), NRT patch (84%), and bupropion (82%) were effective medications for smoking cessation in the general population; however, their effectiveness in patients with mental illness was not assessed [Tong 2010, USA, S+].

One study of community based adolescent and child psychiatrists reported that they did not prescribe NRT for smoking cessation to their clients because they thought NRT had not been adequately tested with adolescents (13.6%), or were worried that it was not safe in adolescents [Price 2007b, USA, S+].

In two studies of community based psychiatrists, one of the main barriers reported for not prescribing NRT in their service was that smokers would not comply with NRT [Price 2007a, USA, S-; Price 2007b, USA, S+].

In a UK survey of over 400 clinical mental health professionals, there was a common belief that NRT interfered with antipsychotic medications; this was a view held particularly by staff who smoked. Additionally, many of the non-mental staff respondents thought, incorrectly, that addiction to NRT was common [Ratschen 2009a, England, S++].

Finally, a pilot project from the UK assessed the implementation of a tailored tobacco dependence service in mental health settings, and assessed its impact, and barriers and facilitators to implementation [Parker 2012, England, MM+]. It was found that the mental health professional advisors recruited to support patients and staff with tobacco dependence identified that staff had concerns regarding the ‘harmful effect’ and expense to the Trust of NRT.

#### B. AWARENESS OF STAFF OF SERVICES

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In two primary studies and one review, staff discussed the impact of the staff’s lack of awareness of services for smoking cessation [Williams 2011, Review, -; Price 2007a, USA, S-; Weinberger 2008, USA, S-].

A literature review of primary evidence studies reported that “*Referral to a community of state-funded tobacco treatment may also not be likely given that psychiatrists lack awareness about these programmes more often than other medical colleagues*” [Williams 2011, Review, -]. A survey of community based psychiatrists found that 18% of respondents did not support their patients to quit smoking because they did not know where to send their patients for treatment [Price 2007a, USA, S-]; however, in another study the majority of mental health clinicians knew where to refer patients who wanted to stop smoking [Weinberger 2008, USA, S-].

#### C. LACK OF RE-IMBURSEMENT

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In four US studies, the lack of resources and re-imburement for interventions from the state were identified as barriers to treating smoking cessation in mental health populations by mental health administrators and clinical mental health professionals [Morris 2009, USA, Q+; Price 2007b, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+]. Additionally, two US studies of community based psychiatrists highlighted common barriers for prescribing NRT to patients who smoked were the lack of insurance coverage (including Medicaid) and that their patients couldn’t afford the cost of NRT [Price 2007a, USA, S-; Price 2007b, USA, S+].

Additionally, in a discussion piece, the authors suggest a way forward would be to introduce strong financial incentives for clinicians to encourage them to address smoking in their patients with mental health conditions, possibly linking this through the quality of outcome framework in primary care and within a suitable programme for secondary mental health care clinicians [Ratschen 2010a, Discussion piece].

#### D. INFORMATION AND ACCESSIBILITY OF SUPPORT FOR PATIENTS

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In two studies, nurses and mental health professionals perceived that patients had a lack of information and support for smoking cessation and that this was a major barrier for quitting and reducing cigarette consumption [Ashton 2010, Australia, S+; Dickens 2004, England, S+].



*“[Patients] should be educated to give them an informed choice.”* [Dickens 2004, England, S+]

In two studies, mental health workers and ward staff thought providing patients with information and support would address this barrier [Ashton 2010, Australia, S+; Ratschen 2009b, England, Q+].

In one study, clinical and non-clinical staff thought their psychiatric hospital should promote quitting in patients with mental health conditions through taking a multidisciplinary approach to the support offered [Essenmacher 2008, USA, MM+].

A literature review highlighted that *“Practical matters like not having a telephone or internet access could also be barriers to using telephone or internet-based services effectively”* [Williams 2011, Review, -].

#### E. OTHER FACTORS INFLUENCING THE PROVISION OF SMOKING CESSATION INTERVENTIONS

One study of 123 unit managers from psychiatric units in Australia found the following factors were perceived to influence whether a patient received treatment for nicotine dependence: whether the patient requested assistance to quit, whether the patient was receptive to receiving interventions for smoking cessation, whether an improvement in the patient’s health would be seen with quitting, whether the interventions were perceived to be effective, and the availability of NRT on the psychiatric unit [Wye 2010, Australia, S++]. In a further study conducted in the UK, the majority of staff reported that NRT products and behavioural support for smoking cessation and reduction were readily available in their inpatients mental health setting (64%) [Ratschen 2009a, England, S++].

#### EVIDENCE STATEMENTS

ES 9.1 There is strong evidence from the USA and Brazil to suggest that mental health service staff and psychiatrists from inpatient and outpatient settings perceived NRT was not effective in mental health populations for smoking cessation [Morris 2009, USA, Q+; Price 2007b, USA, S+; Scherer unpublished, Brazil MM+; Sidani 2011, USA, S+]. There is weak evidence from one USA study to suggest that community based psychiatrists considered the safety of NRT use in adolescents and children with mental health conditions was a major barrier to using NRT for smoking cessation [Price 2007b, USA, S+]. There was moderate evidence from England to suggest non-medical inpatient staff were more likely to, incorrectly, believe addiction to NRT was common, compared to medical inpatient staff [Ratschen 2009a, England, S++]. Finally, there is weak evidence to suggest that staff had concerns regarding the ‘harmful effect’ and expense to the Trust of NRT [Parker 2012, England, MM+].

ES 9.2 There is weak evidence from the USA to suggest community based psychiatrists were not prescribing NRT in their service due to their perception that smokers with mental health conditions would not comply with NRT [Price 2007a, USA, S-; Price 2007b, USA, S+], and moderate evidence from England to suggest it is because inpatient mental health staff believed NRT interfered with antipsychotic medications [Ratschen 2009a, England, S++].

ES 9.3 There is mixed weak evidence regarding whether clinical mental health staff's lack of awareness of smoking cessation services was a barrier to providing smoking cessation support in patients with mental health conditions in inpatient and outpatient settings [Williams 2011, Review, -; Price 2007a, USA, S-; Weinberger 2008, USA, S-].

ES 9.4 There is strong evidence from US studies to suggest that clinical mental health staff and administrators predominately from outpatient settings thought a major barrier to providing smoking cessation support in patients with mental health conditions was the lack of resources and reimbursement for smoking cessation interventions from the state [Morris 2009, USA, Q+; Price 2007b, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+].

ES 9.5 There is moderate evidence to suggest that nurses and mental health professionals predominately from inpatient settings perceive that the patients had a lack of information and support relating to smoking cessation support [Ashton 2010, Australia, S+; Dickens 2004, England, S+], and addressing this would be a facilitator for smoking cessation and reduction [Ashton 2010, Australia, S+; Ratschen 2009b, England, Q+]. Additionally, there is very weak evidence to suggest that a major barrier to accessing smoking cessation services was a lack of access to a telephone or internet [Williams 2011, Review, -].

ES 9.6 There is moderate evidence from Australia to suggest that the following factors were the psychiatric unit managers perceptions for whether a patient received treatment for nicotine dependence: i) whether the patient requested assistance to quit, ii) whether the patient was receptive to receiving interventions for smoking cessation, iii) whether an improvement in the patient's health would be seen with quitting, iv) whether the interventions were perceived to be effective, and v) the availability of NRT on the psychiatric unit [Wye 2010, Australia, S++]. There is moderate evidence from England to suggest that inpatient mental health staff perceive NRT products and behavioural support for smoking cessation and reduction were readily available in their inpatients mental health setting [Ratschen 2009a, England, S++].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Three studies were conducted in the UK [Dickens 2004, England, S+; Parker 2012, England, MM+; Ratschen 2009a, England, S++], and two studies were conducted in a country which was deemed to have similar applicability to that of the UK setting [Ashton 2010, Australia, S+; Wye 2010, Australia, S++]. However, the evidence relating to the lack of resources and re-imburement as a barrier for providing smoking cessation interventions is likely not to be applicable to the UK setting and/or practices.

**SUBSIDIARY QUESTION: ARE THERE DIFFERENCES IN ACCEPTABILITY OF SMOKING CESSATION AND TEMPORARY ABSTINENCE INTERVENTIONS BY DELIVERER, SETTING, TIMING (OR POINT IN THE CARE PATHWAY), FREQUENCY, DURATION, AND SEVERITY OF DEPENDENCE?**

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None of the included studies assessed the differences in acceptability of smoking cessation and temporary abstinence interventions by deliverer, timing (or point in care pathway), frequency, duration or severity of dependence. The findings in the previous two sections detailed the differences in acceptability by the setting (inpatient versus outpatient).

**EVIDENCE STATEMENTS**

ES 10.1 No evidence was identified which assessed the differences in acceptability of smoking cessation and temporary abstinence interventions by deliverer, timing (or point in care pathway), frequency, duration or severity of dependence.

**SUBSIDIARY QUESTION: ARE THERE DIFFERENCES IN ACCEPTABILITY OF SMOKING CESSATION AND TEMPORARY ABSTINENCE INTERVENTIONS BY MENTAL HEALTH DIAGNOSIS, GENDER, SEXUAL ORIENTATION, AGE, ETHNICITY, RELIGION, SOCIOECONOMIC STATUS, DISABILITY, AND POPULATION OF INTEREST (INCLUDING PATIENTS, HOUSEHOLD MEMBERS, VISITORS AND STAFF)?**

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None of the included studies assessed the differences in acceptability of smoking cessation and temporary abstinence interventions by gender, sexual orientation, ethnicity, religion, socioeconomic status or disability. The findings in the previous two sections detailed the differences in acceptability by the population of interest (including patients, relatives and staff). Thus the findings below relate to studies which compared differences by mental health diagnosis, and those that were focused on children and adolescents. The methods and findings of the studies are presented briefly in Table 5. Any interesting differences which focus on the themes and subthemes identified in the previous sections are described below.

**MENTAL HEALTH DIAGNOSIS**

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One of the included studies compared the experiences of community based patients by mental health diagnosis [Lawn 2002, Australia, Q++]. The study reported the reasons for why patients smoked cigarettes were described by patients with schizophrenia were primarily relating to preventing illness relapse, with patients reporting strong fears of relapse, and thus the need for a continual supply of cigarettes was vital with patients resorting to begging, stealing or picking up butts. Patients with depression also reported the need for ensuring supply of their cigarettes; however, in contrast to the behaviours exhibited by patients with schizophrenia, patients with depression reported being able to juggle their other needs and commitments to ensure that their supply could last for a few extra days until they had more funds available. Patients with personality disorders appeared to smoke depending on whether they were well or not, with patients reporting

an unconscious need to smoke when they were unwell. Additionally, patients with personality disorders appeared to exhibit quite risky behaviours to get cigarettes when they were unwell, whilst at time of wellbeing they appeared to be able to ignore the need to smoke [Lawn 2002, Australia, Q++].

The study also compared the perceived barriers of making a quit attempt by mental health diagnosis [Lawn 2002, Australia, Q++]. Patients with schizophrenia failed to describe concerns regarding the impact that smoking had on their physical health, which was in contrast to patient with depression, who saw continuing to smoke would have serious detrimental effects on their physical health. For patients with personality disorders, the self-enjoyment and self-reward they received from smoking overshadowed any desire they felt to make a quit attempt. For some patients with personality disorders, they reported the pleasurable and at times euphoric effects of smoking after abstaining from cigarettes for a period of time, either due to lack of funds or voluntarily imposed abstinence.

## AGE

One of the included studies assessed the views' of psychiatrists for child and adolescent [Price 2007b, USA, Q+]; the themes and subthemes relating to this study are presented in the relevant main question sections since similar themes and subthemes were identified from this study as reported in other studies of adults.

### EVIDENCE STATEMENTS

ES 11.1 No evidence was identified which assessed the differences in acceptability of smoking cessation and temporary abstinence interventions by gender, sexual orientation, ethnicity, religion, socioeconomic status or disability.

ES 11.2 There is moderate evidence to suggest outpatients with schizophrenia or depression use cigarettes to overcome their fears of mental illness relapse [Lawn 2002, Australia, Q++]. Outpatients with schizophrenia exhibit overt behaviours to ensure their cigarette supply continues (for example, stealing cigarettes), whereas outpatients with depression appeared to have better coping strategies to ensure their supply lasted until they have sufficient funds to purchase more. Outpatients with personality disorders have an unconscious need to smoke when they are unwell and were shown to exhibit risky behaviours to ensure their supply continues [Lawn 2002, Australia, Q++].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. None of the studies were conducted in the UK; however, one study was conducted in a country which was deemed to have similar applicability to that of the UK setting [Lawn 2002, Australia, Q++].

**Table 5** Characteristics of included studies – Studies which compared views of patients and staff members by mental health diagnosis and age

Author, year, quality	Aim of the study	Method, population, and setting	Location
<b>Author:</b> Lawn <b>Year:</b> 2002 <b>Quality:</b> ++	To describe the experiences of mental health clinics as they relate to smoking behaviour, the relationship of smoking behaviour to the course of their mental illness and its management, and to their attempts to quit smoking	<b>Method:</b> Interviews <b>Population:</b> Patients with schizophrenia, depression, bipolar affective disorder, and personality disorder <b>Sample size:</b> 24 <b>Setting:</b> Community	Australia
<b>Author:</b> Price <b>Year:</b> 2007b <b>Quality:</b> +	Practice and perceptions of smoking cessation activities among child and adolescent psychiatrists	<b>Method:</b> Survey <b>Population:</b> Psychiatrists <b>Sample size:</b> 184 <b>Setting:</b> Community	USA

## **QUESTION 2. WHICH STRATEGIES/APPROACHES ARE EFFECTIVE IN ENCOURAGING MENTAL HEALTH CARE PROFESSIONALS TO RECORD SMOKING STATUS?**

Thirteen of the included studies discussed the strategies or approaches used for recording smoking status of patients with mental illness [Johnson 2009, Canada, S+; Parker 2012, England, MM+; Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Sarna 2009, USA, S-; Secker-Walker 1994, USA, S+; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+; Wye 2009, Australia, S++; Zvolensky 2005, USA, S-]. The methods and findings of the studies are presented briefly in Table 6.

In six studies, mental health professionals, including psychiatrists and psychiatric nurses, reported that they regularly ask their patients with mental illness about their smoking status [Price 2007a, USA, S-; Price 2007b, USA, S+; Sarna 2009, USA, S-; Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+], including one study whose respondents were psychiatrists for children and adolescents [Price 2007b, USA, S+]. However, approximately half of psychiatry residents asked their inpatients [Prochaska 2005, USA, S+], and only a quarter of respondents reported that they regularly also documented smoking behaviour for the majority of their child and adolescents patients [Price 2007b, USA, S+]. Additionally, only approximately half of clinical mental health counsellors reported that they identified and documented the smoking behaviour of all of their clients [Sidani 2011, USA, S+]. In two studies, between a quarter and a third of respondents reported never identifying or documenting smoking status [Sidani 2011, USA, S+; Price 2007a, USA, S-], and in one study less than a third of psychiatric nurses reported regularly asking their patients about their smoking behaviour [Zvolensky 2005, USA, S-]. Additionally, a survey also found that a minority of personnel monitored or audited medical records to ensure recording of patient smoking status [Wye 2009, Australia, S++].

One study from the UK assessed the implementation of a tailored tobacco dependence service in mental health settings, and assessed its impact, and barriers and facilitators to implementation [Parker 2012, England, MM+]. This study initially conducted an audit in inpatient and community settings. The recording of smoking status was a mandatory item for inpatient; however no standard procedure for recording of smoking status was identified in community based patients. The audit identified that 73% of inpatients were recorded as current smokers; however, only 22% of 2038 community patients had an electronic record of their smoking status.

In one study, the factors which predicted whether the smoking status of patients was recorded at admission was having a sympathetic attitude towards the role of the provider, and having a greater confidence in the provision of smoking cessation counselling [Johnson 2009, Canada, S+]. However, in a survey of 123 unit managers, respondents commonly reported that it was the decision of the individual staff members which determined whether the patients smoking status was assessed or recorded [Wye 2009, Australia, S++].

In two studies, respondents reported routine systems were used to identify smokers, where the majority of them reported glancing at the patients' charts [Secker-Walker 1994, USA, S+; Zvolensky

**2005, USA, S-].** Additionally, in a survey of community based psychiatrists, only a minority of respondents reported using a formal prompt, such as a sticker or note on the patients' records, to remind them to address nicotine dependence if their patient smoked [**Price 2007a, USA, S-].**

In one study, staff perceived that systematic methods for identifying smokers should be used which could include chart tracking mechanisms, management information systems and electronic medical records [**Morris 2009, USA, Q+].**

#### EVIDENCE STATEMENTS

ES 12.1            There is mixed evidence regarding whether patients are regularly asked about their smoking behaviour, with moderate evidence from the USA to suggest mental health staff from inpatient and outpatient settings regularly ask the smoking status of patients with mental illness [**Price 2007a, USA, S-; Price 2007b, USA, S+; Sarna 2009, USA, S-; Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+],** but moderate evidence from Australia to suggest it is at the discretion of the mental health staff member in an inpatient setting whether they ask the smoking behaviour of their patients [**Wye 2009, Australia, S++].** Additionally, there is moderate evidence from the USA to suggest a substantial proportion of mental health staff predominately from outpatient settings never document the smoking status of patients with mental illness [**Price 2007a, USA, S-; Price 2007b, USA, S+; Sidani 2011, USA, S+; Zvolensky 2005, USA, S+],** but moderate evidence to suggest it is at the discretion of the mental health staff member in an inpatient setting whether they document the smoking behaviour of their patients [**Wye 2009, Australia, S++].** There is recent evidence from the UK to suggest that whilst measures may be in place for inpatients to record and provide treatment for smoking, this may not be the case for community based patients [**Parker 2012, England, MM+].**

ES 12.2            There is moderate evidence from the USA to suggest routine systems are used to identify patients who smoked predominately from outpatient settings, including consulting the patients' chart [**Secker-Walker 1994, USA, S+; Zvolensky 2005, USA, S-].**

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Only one of the studies was conducted in the UK [**Parker 2012, England, MM+],** and one study was conducted in a country which was deemed to be similar to that of the UK setting [**Wye 2009, Australia, S++].**

Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

**Table 6** Characteristics of included studies – Recording smoking status

<b>Author, year, quality</b>	<b>Aim of the study</b>	<b>Method, population, and setting</b>	<b>Location</b>
<b>Author:</b> Johnson <b>Year:</b> 2009 <b>Quality:</b> +	To describe mental health care providers' attitudes about tobacco use and confidence in providing effective smoking cessation intervention, personal smoking status, incorporation of smoking cessations interventions into practice	<b>Method:</b> Survey <b>Population:</b> Mental health care providers <b>Sample size:</b> 282 <b>Setting:</b> Community	Canada
<b>Author:</b> Parker <b>Year:</b> 2012 <b>Quality:</b> +	To implement a tailored tobacco dependence service in mental health settings and assess its impact, and barriers and facilitators to implementation	<b>Method:</b> Mixed methods <b>Population:</b> Mental health professional advisers supporting patients and staff who are smokers <b>Sample size:</b> Two advisors reporting on barriers and facilitators relating to 2038 community patients and 4 acute and 2 rehabilitation wards containing a total of 129 beds <b>Setting:</b> Inpatient and community	England
<b>Author:</b> Price <b>Year:</b> 2007a <b>Quality:</b> -	To explore psychiatrists' perceptions and practices relating to treating smoking in patients, and to examine whether these perceptions and practices varied by psychiatrists' characteristics	<b>Method:</b> Survey <b>Population:</b> Psychiatrists <b>Sample size:</b> 78 <b>Setting:</b> Community	USA
<b>Author:</b> Price <b>Year:</b> 2007b <b>Quality:</b> +	Practices and perceptions of smoking cessation activities among child and adolescent psychiatrists	<b>Method:</b> Survey <b>Population:</b> Child and adolescent psychiatrists <b>Sample size:</b> 184 <b>Setting:</b> Community	USA
<b>Author:</b> Prochaska <b>Year:</b> 2005 <b>Quality:</b> +	To assess the need for and interest in tobacco cessation curricula in psychiatric residency training	<b>Method:</b> Survey <b>Population:</b> Psychiatry residents <b>Sample size:</b> 105 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Sarna <b>Year:</b> 2009 <b>Quality:</b> -	To describe frequency of psychiatric nurses' self-reported interventions to address smoking, and to explore associations between nurses' demographic and professional characteristics and awareness of Tobacco Free Nurses and the 5A's	<b>Method:</b> Survey <b>Population:</b> Nurses <b>Sample size:</b> 100 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Secker-Walker <b>Year:</b> 1994 <b>Quality:</b> +	To assess and compare the smoking cessation counselling activities of different health professional groups	<b>Method:</b> Survey <b>Population:</b> Mental health counsellors <b>Sample size:</b> 80 <b>Setting:</b> Community	USA



Review 5: Barriers & facilitators for smoking cessation interventions in mental health services

<b>Author:</b> Sharp <b>Year:</b> 2009 <b>Quality:</b> +	To assess psychiatric nurses' perspectives concerning tobacco dependence intervention	<b>Method:</b> Survey <b>Population:</b> Psychiatric nurses <b>Sample size:</b> 1381 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Sidani <b>Year:</b> 2011 <b>Quality:</b> +	To examine the smoking cessation beliefs of clinical mental health counsellors and their practices with clients	<b>Method:</b> Survey <b>Population:</b> Clinical mental health counsellors <b>Sample size:</b> 330 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Tong <b>Year:</b> 2010 <b>Quality:</b> +	To describe the smoking prevalence, smoking cessation practices, and beliefs for multiple types of mental health professionals, and factors associated with self-reported delivery of tobacco dependence treatments	<b>Method:</b> Survey <b>Population:</b> Mental health professionals <b>Sample size:</b> 2804 (of which 400 psychiatrists) <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Williams <b>Year:</b> 2009 <b>Quality:</b> +	To develop and implement a 2-day continuing education curriculum called "Treating Tobacco Dependence in Mental Health Setting"	<b>Method:</b> Survey <b>Population:</b> Mental health workers <b>Sample size:</b> 71 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Wye <b>Year:</b> 2009 <b>Quality:</b> ++	To identify smoking policies and procedures in public psychiatric inpatient units	<b>Method:</b> Survey <b>Population:</b> Nurse/unit managers <b>Sample size:</b> 123 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Zvolensky <b>Year:</b> 2005 <b>Quality:</b> -	To gauge the degree of basic cessation counselling provided by practitioners specialising in anxiety treatment disorders	<b>Method:</b> survey <b>Population:</b> Mental health professionals <b>Sample size:</b> 75 <b>Setting:</b> Inpatient and community	USA

### **QUESTION 3A. WHICH STRATEGIES/APPROACHES USED BY SECONDARY CARE MENTAL HEALTH SERVICES ARE EFFECTIVE FOR: PROVIDING PEOPLE FROM THE POPULATION OF INTEREST WITH SMOKING CESSATION INFORMATION, ADVICE AND SUPPORT?**

Eighteen of the included studies discussed the strategies or approaches used for providing patients with mental illness with smoking cessation information, advice and support [Ashton 2010, USA, S+; Essenmacher 2008, USA, S+; Himelhoch 2003, USA, S+; Johnson 2009, Canada, S+; Parker 2012, England, MM+; Price 2007a, USA, S-; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Ratschen 2010b, England, Q++; Sarna 2009, USA, S-; Secker-Walker 1994, USA, S+; Sharp 2009, USA, S+; Sidani 2011, USA, S+; Solty 2009, Canada, S+; Tong 2010, USA, S+; Williams 2009, USA, S+; Wye 2009, Australia, S++; Zvolensky 2005, USA, S-]. The methods and findings of the studies are presented briefly in Table 7.

In one survey of 123 unit managers, only a small minority of respondents reported their personnel monitored or audited documentation on the provision of smoking care to patients, and the majority of respondents reported that it was usually a staff member's decision whether they provided smoking cessation advice [Wye 2009, Australia, S++].

In four studies, the majority of psychiatrists and psychiatric nurses reported providing advice to quit to their patients [Price 2007a, USA, S-; Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+]. However, in seven studies, lower rates for providing advice to quit were seen in adolescent and child psychiatrists [Price 2007b, USA, S+], physicians [Solty 2009, Canada, S+], psychiatric nurses [Sarna 2009, USA, S-; Solty 2009, Canada, S+], clinical and non-clinical staff members [Essenmacher 2008, USA, S+], psychiatry residents [Prochaska 2005, USA, S+], and mental health counsellors or workers [Ashton 2010, USA, S+; Secker-Walker 1994, USA, S+; Sidani 2011, USA, S+]. Furthermore, in one study more than half of clinical and non-clinical staff members in inpatient settings perceived that patients were never offered smoking cessation services [Essenmacher 2008, USA, S+], and all inpatients from a UK based acute psychiatric unit reported they had not received any detailed information or offers of comprehensive smoking cessation support [Ratschen 2010b, England, Q++].

One recent study from the UK assessed the implementation of a tailored tobacco dependence service in mental health settings, and assessed its impact, and barriers and facilitators to implementation [Parker 2012, England, MM+]. This study initially conducted an audit in inpatient and community settings. The study found that only 24% of inpatients recorded as current smokers had received recorded advice on the risks of smoking.

Additionally, psychiatric nurses, psychiatry residents and medical health counsellors reported low rates of follow-up in their patients [Prochaska 2005, USA, S+; Sarna 2009, USA, S-; Sidani 2011, USA, S+]. In one study, a majority of mental health workers reported that they only discuss tobacco use if they were concerned about their patients' tobacco use or if the patient raised the issue [Ashton 2010, USA, S+].

*"If I notice they are coughing or showing other smoking related illness."* [Ashton 2010, USA, S+]

*"It's discussed if they identify it an issue."* [Ashton 2010, USA, S+]

Additionally, in one study of inpatient and community based mental health professionals, on average, they dedicated seven minutes of their sessions to smoking cessation activities [Zvolensky 2005, USA, S-]. Furthermore, in one study of mental health counsellors, they reported the smoking cessation activities were focused on advertising patients to stop smoking and explained the dangers of smoking [Secker-Walker 1994, USA, S+].

One study assessed the predictors of ever discussing tobacco use with patients, and found the significant predictors in a multivariate model were having a sympathetic attitude towards the role of the provider (OR 5.46, 95% CI 1.42 to 20.95), having greater confidence in providing smoking cessation counselling (OR 1.03, 95% CI 1.00 to .06), and having more years' experience in the mental health field (OR 6.25, 95% CI 1.62 to 23.76) [Johnson 2009, Canada, S+].

Two studies described the rates of discussing or prescribing pharmacotherapies for smoking cessation [Price 2007a, USA, S-; Tong 2010, USA, S+]. High rates of discussing pharmacotherapies were reported in one study of psychiatrists [Tong 2010, USA, S+], whereas low rates of prescribing were reported in the other study of community based psychiatrists [Price 2007a, USA, S-]. Additionally, in a further study, patients with bipolar affective disorders were significantly more likely to receive smoking cessation counselling than patients with depressive disorders (14.7% versus 10.5%; adjusted OR 1.80, 95% CI 1.08 to 3.00). However, no significant differences were seen when comparing psychosis or anxiety disorders to depressive disorders [Himmelhoch 2003, USA, S+].

#### EVIDENCE STATEMENTS

ES 13.1 There is moderate evidence to suggest that psychiatrists and psychiatric nurses based in the US from inpatient and outpatient settings regularly provide their patients with smoking cessation advice [Price 2007a, USA, S-; Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+]; however, low rates of providing advice on smoking cessation were seen in a number of studies [Ashton 2010, USA, S+; Essenmacher 2008, USA, S+; Parker 2012, England, MM+; Price 2007b, USA, S+; Prochaska 2005, USA, S+; Sarna 2009, USA, S-; Secker-Walker 1994, USA, S+; Sidani 2011, USA, S+; Solty 2009, Canada, S+]. There is moderate evidence to suggest that inpatients from a UK based acute psychiatric unit were not offered any form of comprehensive smoking cessation support [Ratschen 2010b, England, Q++].

ES 13.2 There is weak evidence from the USA to suggest psychiatric nurses, psychiatry residents, and medical health counsellors predominately from inpatient settings infrequently followed up regarding smoking cessation support for their patients [Prochaska 2005, USA, S+; Sarna 2009, USA, S-; Sidani 2011, USA, S+].

ES 13.3 There is weak evidence from the USA to suggest inpatient and outpatient based psychiatrists regularly discuss pharmacotherapies [Tong 2010, USA, S+], and community based psychiatrists infrequently prescribe smoking cessation pharmacotherapies [Price 2007a, USA, S+].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Only two of the studies were conducted in the UK [Parker 2012, England, MM+; Ratschen 2010b, England, Q++], and no further studies were conducted in a country which was deemed to be similar to that of the UK setting.

**Table 7** Characteristics of included studies – Providing information, advice and support to patients

<b>Author, year, quality</b>	<b>Aim of the study</b>	<b>Method, population, and setting</b>	<b>Location</b>
<b>Author:</b> Ashton <b>Year:</b> 2010 <b>Quality:</b> +	To assess mental health workers' attitudes to addressing patients' tobacco use and to identify any perceived barriers that prevent people with mental illness from receiving the support they require to tackle tobacco use	<b>Method:</b> Survey <b>Population:</b> Adult mental health workers <b>Sample size:</b> 324 <b>Setting:</b> Inpatient and community	Australia
<b>Author:</b> Essenmacher <b>Year:</b> 2008 <b>Quality:</b> +	To determine staff's characteristics that are associated with attitudes about providing cessation services to veteran patients with psychiatric illness	<b>Method:</b> Survey and interviews <b>Population:</b> Clinical and non-clinical staff members <b>Sample size:</b> 150 in survey, 8 interviews <b>Setting:</b> Inpatient	USA
<b>Author:</b> Himelhoch <b>Year:</b> 2003 <b>Quality:</b> +	To determine how often psychiatrists offer smoking-cessation counselling to their patients who smoke and which factors are independently associated with the relationship	<b>Method:</b> Survey <b>Population:</b> Physicians <b>Sample size:</b> 573 <b>Setting:</b> Community	USA
<b>Author:</b> Johnson <b>Year:</b> 2009 <b>Quality:</b> +	To describe mental health care providers' attitudes about tobacco use and confidence in providing effective smoking cessation intervention, personal smoking status, incorporation of smoking cessations interventions into practice	<b>Method:</b> Survey <b>Population:</b> Mental health care providers <b>Sample size:</b> 282 <b>Setting:</b> Community	Canada
<b>Author:</b> Parker <b>Year:</b> 2012 <b>Quality:</b> +	To implement a tailored tobacco dependence service in mental health settings and assess its impact, and barriers and facilitators to implementation	<b>Method:</b> Mixed methods <b>Population:</b> Mental health professional advisers supporting patients and staff who are smokers <b>Sample size:</b> Two advisors reporting on barriers and facilitators relating to 2038 community patients and 4 acute and 2 rehabilitation wards containing a total of 129 beds <b>Setting:</b> Inpatient and community	England
<b>Author:</b> Price <b>Year:</b> 2007a <b>Quality:</b> -	To explore psychiatrists' perceptions and practices relating to treating smoking in patients, and to examine whether these perceptions and practices varied by psychiatrists' characteristics	<b>Method:</b> Survey <b>Population:</b> Psychiatrists <b>Sample size:</b> 78 <b>Setting:</b> Community	USA
<b>Author:</b> Price <b>Year:</b> 2007b <b>Quality:</b> +	Practice and perceptions of smoking cessation activities among child and adolescent psychiatrists	<b>Method:</b> Survey <b>Population:</b> Psychiatrists <b>Sample size:</b> 184 <b>Setting:</b> Community	USA

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<b>Author:</b> Prochaska <b>Year:</b> 2005 <b>Quality:</b> +	To assess the need for and interest in tobacco cessation curricula in psychiatric residency training	<b>Method:</b> Survey <b>Population:</b> Psychiatry residents <b>Sample size:</b> 105 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Ratschen <b>Year:</b> 2010b <b>Quality:</b> ++	To explore patients' experiences, smoking behaviour and symptoms of nicotine withdrawal in the context of a comprehensive smoke-free policy on mental health acute wards, and to identify options for the future to promote and support smoking cessation and/or reduction in these settings	<b>Method:</b> Semi-structured interviews <b>Population:</b> Patients admitted to acute care inpatient psychiatry unit <b>Sample size:</b> 15 <b>Setting:</b> Inpatient	England
<b>Author:</b> Sarna <b>Year:</b> 2009 <b>Quality:</b> -	To describe frequency of psychiatric nurses' self-reported interventions to address smoking, and to explore associations between nurses' demographic and professional characteristics and awareness of Tobacco Free Nurses and the 5A's	<b>Method:</b> Survey <b>Population:</b> Nurses <b>Sample size:</b> 100 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Secker-Walker <b>Year:</b> 1994 <b>Quality:</b> +	To assess and compare the smoking cessation counselling activities of different health professional groups	<b>Method:</b> Survey <b>Population:</b> Mental health counsellors <b>Sample size:</b> 80 <b>Setting:</b> Community	USA
<b>Author:</b> Sharp <b>Year:</b> 2009 <b>Quality:</b> +	To assess psychiatric nurses' perspectives concerning tobacco dependence intervention	<b>Method:</b> Survey <b>Population:</b> Psychiatric nurses <b>Sample size:</b> 1381 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Sidani <b>Year:</b> 2011 <b>Quality:</b> +	To examine the smoking cessation beliefs of clinical mental health counsellors and their practices with clients	<b>Method:</b> Survey <b>Population:</b> Clinical mental health counsellors <b>Sample size:</b> 330 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Solty <b>Year:</b> 2009 <b>Quality:</b> +	To determine the prevalence of cigarette smoking and the degree of nicotine dependence, and to assess smokers attitudes towards smoking, motivation to quitting, and the frequency that advice to quit was provided	<b>Method:</b> Survey <b>Population:</b> Patients admitted to acute care inpatient psychiatry unit <b>Sample size:</b> 211 <b>Setting:</b> Inpatient	Canada
<b>Author:</b> Tong <b>Year:</b> 2010 <b>Quality:</b> +	To describe the smoking prevalence, smoking cessation practices, and beliefs for multiple types of mental health professionals, and factors associated with self-reported delivery of tobacco dependence treatments	<b>Method:</b> Survey <b>Population:</b> Mental health professionals <b>Sample size:</b> 2804 (of which 400 psychiatrists) <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Williams <b>Year:</b> 2009 <b>Quality:</b> +	To develop and implement a 2-day continuing education curriculum called "Treating Tobacco Dependence in Mental Health Setting"	<b>Method:</b> Survey <b>Population:</b> Mental health workers <b>Sample size:</b> 71 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Wye <b>Year:</b> 2009	To identify smoking policies and procedures in public psychiatric inpatient units	<b>Method:</b> Survey <b>Population:</b> Nurse/unit managers	USA

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<b>Quality:</b> ++		<b>Sample size:</b> 123 <b>Setting:</b> Inpatient	
<b>Author:</b> Zvolensky <b>Year:</b> 2005 <b>Quality:</b> -	To gauge the degree of basic cessation counselling provided by practitioners specialising in anxiety treatment disorders	<b>Method:</b> survey <b>Population:</b> Mental health professionals <b>Sample size:</b> 75 <b>Setting:</b> Inpatient and community	USA

### **QUESTION 3B. WHICH STRATEGIES/APPROACHES USED BY SECONDARY CARE MENTAL HEALTH SERVICES ARE EFFECTIVE FOR: REFERRING PEOPLE FROM THE POPULATION OF INTEREST TO STOP SMOKING OR HOSPITAL BASED STOP SMOKING SERVICES?**

Six of the included studies discussed referring patients to stop smoking services [McNally 2010, England, MM+; Sharp 2009, USA, S+; Tong 2010, USA, S+; Weinberger 2008, USA, S-; Williams 2009, USA, S+]. The methods and findings of the studies are presented briefly in Table 8.

In three studies, approximately half of psychiatrists and practice or psychiatric nurses reported referring their patients to smoking cessation services [Sharp 2009, USA, S+; Tong 2010, USA, Q+; Williams 2009, USA, S+]. In one study, the results demonstrated that mental health clinicians generally knew where to refer patients that were interested in smoking cessation [Weinberger 2008, USA, S-]. One study reported that psychiatric nurses were more likely to refer their patients to stop smoking services if the nurses were more highly motivated, valued tobacco dependence interventions, and perceived their clients to be more motivated to stop smoking than nurses who didn't refer their patients [Sharp 2009, USA, S+]. Additionally, the study reported psychiatric nurses who worked in agencies that referred their patients were significantly more knowledgeable about smoking cessation pharmacotherapies, counselling strategies and available resources than those that didn't work in agencies which referred patients [Sharp 2009, USA, S+]. Furthermore, the study reported the smoking behaviour of the nurse was not an influential factor in determining whether they referred patients [Sharp 2009, USA, S+].

However, in a UK based survey of 27 service managers and mental health lead senior staff from Stop Smoking Services the vast majority of respondents reported they never or very rarely received referrals from inpatients with mental illnesses [McNally 2010, England, MM+]. The UK based survey also found that the majority of respondents reported the mental health status of their clients was generally not known [McNally 2010, England, MM+]. One recent study from the UK assessed the implementation of a tailored tobacco dependence service in mental health settings, and assessed its impact, and barriers and facilitators to implementation [Parker 2012, England, MM+]. This study initially conducted an audit in inpatient and community settings. The study found that only one inpatient had been referred to the NHS Stop Smoking Service.



#### EVIDENCE STATEMENTS

ES 14. 1            There is moderate evidence to suggest that in the US approximately half of mental health staff from inpatient and outpatient settings refer their patients to stop smoking services [**Sharp 2009, USA, S+; Tong 2010, USA, S+; Williams 2009, USA, S+**], and weak evidence from the USA to suggest that inpatient and outpatient based psychiatric nurses are more likely to refer their patients if they are more highly motivated, valued tobacco dependence interventions, and perceived their patients to be more motivated to stop smoking [**Sharp 2009, USA, S+**]. However, there is weak evidence from the UK to suggest that virtually no inpatients are referred to a NHS Stop Smoking Service [**Parker 2012, England, MM+**].

ES 14. 2            There is recent evidence from the UK to suggest that virtually no inpatients are referred to a NHS Stop smoking Service [**Parker 2012, England, MM+**], and Stop Smoking Services never or rarely receive referrals from inpatients with mental illnesses [**McNally 2010, England, MM+**].

ES 14. 3            There is weak evidence to suggest the mental health status of clients attending stop smoking services in the UK is not known [**McNally 2010, England, MM+**].

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Two of the included studies were conducted in the UK [**McNally 2010, England, MM+; Parker 2012, England, MM+**].

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**Table 8** Characteristics of included studies – Referring patients to services

<b>Author, year, quality</b>	<b>Aim of the study</b>	<b>Method, population, and setting</b>	<b>Location</b>
<b>Author:</b> McNally <b>Year:</b> 2010 <b>Quality:</b> +	To examine whether smoking cessation services are following guidance on delivery of services to patients with mental illness	<b>Method:</b> Survey and interviews <b>Population:</b> NHS Stop Smoking Services staff <b>Sample size:</b> 27 <b>Setting:</b> Community	England
<b>Author:</b> Parker <b>Year:</b> 2012 <b>Quality:</b> +	To implement a tailored tobacco dependence service in mental health settings and assess its impact, and barriers and facilitators to implementation	<b>Method:</b> Mixed methods <b>Population:</b> Mental health professional advisers supporting patients and staff who are smokers <b>Sample size:</b> Two advisors reporting on barriers and facilitators relating to 2038 community patients and 4 acute and 2 rehabilitation wards containing a total of 129 beds <b>Setting:</b> Inpatient and community	England
<b>Author:</b> Sharp <b>Year:</b> 2009 <b>Quality:</b> +	To assess psychiatric nurses' perspectives concerning tobacco dependence intervention	<b>Method:</b> Survey <b>Population:</b> Psychiatric nurses <b>Sample size:</b> 1381 <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Tong <b>Year:</b> 2010 <b>Quality:</b> +	To describe the smoking prevalence, smoking cessation practices, and beliefs for multiple types of mental health professionals, and factors associated with self-reported delivery of tobacco dependence treatments	<b>Method:</b> Survey <b>Population:</b> Mental health professionals <b>Sample size:</b> 2804 (of which 400 psychiatrists) <b>Setting:</b> Inpatient and community	USA
<b>Author:</b> Weinberger <b>Year:</b> 2008 <b>Quality:</b> -	To examine the attitudes of clinicians regarding smoking cessation for psychiatric and substance abusing patients	<b>Method:</b> Survey <b>Population:</b> Mental health clinicians <b>Sample size:</b> 34 <b>Setting:</b> Inpatient	USA
<b>Author:</b> Williams <b>Year:</b> 2009 <b>Quality:</b> +	To develop and implement a 2-day continuing education curriculum called "Treating Tobacco Dependence in Mental Health Setting"	<b>Method:</b> Survey <b>Population:</b> Mental health workers <b>Sample size:</b> 71 <b>Setting:</b> Inpatient and community	USA

#### **QUESTION 4. HOW CAN COMMUNITY, PRIMARY, AND SECONDARY CARE MENTAL HEALTH CARE PROVIDERS COLLABORATE MORE EFFECTIVELY TO INTEGRATE SMOKING CESSATION SUPPORT WITHIN CARE PATHWAYS?**

Two studies were identified which discussed whether health care providers should collaborate more effectively together to integrate smoking cessation support [Morris 2009, USA, Q+; Ratschen 2009b, England, Q+]. One study assessed the impact of implementing a tailored tobacco dependence service in mental health settings in the UK [Parker 2012, England, MM+]. The methods and findings of the studies are presented briefly in Table 9.

In a UK based study, ward staff perceived an effective smoking cessation support service for patients with mental illness would be provided if support relating to smoking and smoking cessation were integrated into the health care plan of their patients [Ratschen 2009b, England, Q+]. They suggested that this should include having structured discussions with key workers and doctors during the inpatient stay, and ensuring collaborations between the inpatient and community teams. Staff also perceived the need for facilitating tailored smoking cessation and smoking reduction programmes through the local stop smoking services [Ratschen 2009b, England, Q+].

In a further study, mental health administrator staff discussed a strategy for implementing smoking cessation across practices which would be useful for building an early record of success [Morris 2009, USA, Q+]. They suggested that the mental health practices which had a strong interest in smoking cessation should become the first to adopt smoking cessation practices, rather than making smoking cessation support compulsory for all services to implement [Morris 2009, USA, Q+]. Additionally, champions identified from case managers, nurses and psychiatrists within each mental health service were thought to be the most ideal way to develop strategic partnerships to fully implement smoking cessation strategies [Morris 2009, USA, Q+].

One recently published study from the UK, assessed the implementation of a tailored tobacco dependence service in mental health settings and assessed its impact, and barriers and facilitators to implementation [Parker 2012, England, MM+]. The study was a pragmatic pilot project which used an integrative service model to smoking cessation and reduction in the UK's largest mental health trust between October 2010 and June 2011. The researchers performed an audit of current procedures on four acute and two rehabilitation wards and in the community setting using the recovery team.

The audit identified that the mental health trust had no targets to reducing smoking or treating smoking. Additionally, there was a lack of resources to achieve the aims as set out in the smoke free policy, including the unavailability of NRT stock and tobacco dependence treatment guidelines.

Following the audit, the research team developed and implemented a tailored tobacco dependence service. This included providing staff training, dissemination of the audit results, development of

recording instruments and collaborative pathways, closer liaison with management and consultants, and dissemination of the project results. Furthermore, two mental health professional advisors were recruited to provide support to patients and staff who smoked to enable them to follow a structured quit and assisted reduction programmes. The quit programme provided flexible support, which focused on individual goal setting, with the option of using NRT. The reduction programme was tailored to the needs of the clients using either individual and group formats, and allowed for the use of motivational interviewing, cognitive behavioural therapy, and combination NRT. A peer-support component involving 'quit stories' from successful quitters was also integrated into the programmes. Both programmes included the option to set up referral and community pathways, including an online referral to the local NHS Stop Smoking Service.

During the pilot phase, a total of 110 patients engaged with the service. All inpatients were approached and offered advice and support if they smoked. All patients who accepted prefer an individual format of support. Approximately half of inpatients who accepted the offer of support opted to have NRT to aid cessation (47%). In the community based patients, 75 patients accepted the offer of a referral for smoking cessation from the programme advisors, of which nearly half were based on self-referrals. Fifty-three (70%) patients had at least one appointment with an advisor, and 24 (45%) used NRT to aid cessation. Eight staff members also took part in the programme during the pilot project and made a quit attempt, of which half successfully quit smoking.

#### EVIDENCE STATEMENTS

ES 15.1            There was weak evidence from one UK study to suggest that ward staff perceived smoking cessation should be integrated into the inpatient based health care plan of the patient, and strong collaborations should be formed between key workers and doctors during the inpatient stay, and between inpatient and community teams [**Ratschen 2009b, England, Q+**].

ES 15.2            There was weak evidence from one UK study to suggest that ward staff perceived smoking cessation and smoking reduction should be tailored to the needs of the inpatients with mental illness, with support being provided through local stop smoking services [**Ratschen 2009b, England, Q+**].

ES 15.3            There was weak evidence from the USA to suggest that community based mental health administrator staff perceived a useful facilitator for implementing smoking cessation across practices would be to first adopt smoking cessation support only in the practices in which there was a strong interest in smoking cessation, so that an early success could be demonstrated; rather than enforcing all practices to have smoking cessation support [**Morris 2009, USA, Q+**].

ES15.4            There was recent evidence from the UK to suggest that implementing a tailored tobacco dependence service in the UK's largest mental health trust through the development of an integrated smoking care pathway, whilst offering flexible support for smoking cessation and reduction programmes through the use of dedicated staff to provide the service, resulted in a modest service uptake rate overall. However, in the inpatient setting, where smokers can be easily identified due to smoking status recording being mandatory, almost a quarter of all smokers engaged with the service.

Applicability: The evidence has partial applicability to the current UK settings and/or practices. Two studies were conducted in a UK setting [**Parker 2012, England, MM+; Ratschen 2009b, England, Q+**], therefore the evidence from these studies is likely to be directly applicable.

**Table 9**            **Characteristics of included studies – Collaboration between healthcare providers**

<b>Author, year, quality</b>	<b>Aim of the study</b>	<b>Method, population, and setting</b>	<b>Location</b>
<b>Author:</b> Morris <b>Year:</b> 2009 <b>Quality:</b> +	To understand the factors that impede and support tobacco cessation efforts from the perspective of both community mental health patients and providers	<b>Method:</b> Focus groups <b>Population:</b> Mental health service users <b>Sample size:</b> 19 <b>Setting:</b> Community	USA
<b>Author:</b> Parker <b>Year:</b> 2012 <b>Quality:</b> +	To implement a tailored tobacco dependence service in mental health settings and assess its impact, and barriers and facilitators to implementation	<b>Method:</b> Mixed methods <b>Population:</b> Mental health professional advisers supporting patients and staff who are smokers <b>Sample size:</b> Two advisors reporting on barriers and facilitators relating to 2038 community patients and 4 acute and 2 rehabilitation wards containing a total of 129 beds <b>Setting:</b> Inpatient and community	England
<b>Author:</b> Ratschen <b>Year:</b> 2009b <b>Quality:</b> +	To explore the practical implications of, and problems arising from, the implementation of a comprehensive smoke-free policy	<b>Method:</b> Interviews <b>Population:</b> Ward staff <b>Sample size:</b> 16 <b>Setting:</b> Inpatient	England

## DISCUSSION

This review of barriers and facilitators for smoking cessation in secondary mental health services comprises of a large body of evidence. Forty-six primary studies, one critical review, and two discussion pieces were identified. The majority of the studies assessed the barriers for smoking cessation in mental health populations as identified by staff members, with fewer studies reporting the views of patients. Additionally, only one study reported the views of relatives. One recent study in the UK assessed the impact of implementing a tailored tobacco dependence service in mental health settings. The majority of studies were conducted in the US, with few studies from other countries, and only ten studies were identified from the UK setting. The methodological quality of the studies was very variable, with only 12 studies being awarded the highest quality.

Overall the evidence suggests:

- Inpatients' and outpatients' perceive the following are reasons for smoking:
  - To gain autonomy
  - Nicotine addiction
  - Pleasure and enjoyment
  - Relaxation and to calm down
  - Sense of companionship and form of social pastime
  - Self-medication to cope with symptoms of mental illness, with patients' fearing quitting might result in deterioration.
- Patients' perceive cigarettes are used as a mechanism of control in inpatient settings.
- Inpatients' and outpatients' perceive nicotine addiction, lack of motivation, stress, severity of mental health symptoms, smoking in peers, family and staff, are barriers to making a quit attempt. Additionally, outpatients perceive a lack of knowledge regarding which strategies are effective for smoking cessation, and the negative views of staff, are important barriers to making a quit attempt.
- Inpatients' and outpatients' perceive worrying about their physical health, influence of peer, family and social pressures to quit, high cost of cigarettes, are facilitators to quitting smoking, with some outpatients expressing that they would need to experience a negative health effect before making a quit attempt. However, some inpatients' and outpatients' perceive there is little point in quitting as it would not have a direct effect on recovery from their mental illness, improve quality of life or health.
- Mixed beliefs were expressed by inpatients' regarding whether NRT was effective for smoking cessation; and some inpatients' expressed that they would prefer to not take further medications beyond those already taking for their mental illness. Additionally, cost of NRT was a barrier to using NRT in outpatients; however, patients were not aware that NRT

could be acquired on prescription and so would have been free to those entitled to free prescriptions.

- Outpatients' perceived the offer of behavioural support would be useful during their quit attempt, however, they perceived group behavioural therapy would not be as effective as individual behavioural therapy.
  - Outpatients perceived the following to be important facilitators to successfully quitting using behavioural support: being able to dictate how many sessions were received, ability to have support offered in informal and non-clinical setting, receiving support tailored to the needs of patients with mental illness, and involving one or more persons with a history of mental illness who had successfully quit smoking.
  - Outpatients' perceived the smoking cessation advisor should be supportive, take a non-judgmental approach to quitting, maintain a positive expectation in the patients' ability to quit, act as an advocate during the quit attempt, and have a good knowledge of mental health problems, and how smoking and quitting can impact on their mental health.
  - Inpatients' perceived that an inpatient setting was not a suitable environment for initiating smoking cessation support.
  - Outpatients' perceive monetary incentives could be an effective intervention for smoking cessation. Inpatients' and outpatients' perceived they would find it easier if the goal was to cut down rather than quit.
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- Staff in general believe that smoking is a patient choice and they perceive benefits to smoking such as patients enjoying smoking, using smoking as a coping mechanism, and as a means of self-medication to control mental illness symptoms. They believe that allowing patients to smoke reduces the likelihood of aggression and violence, thereby ensuring a smoother running of inpatient settings. However staff also perceived cigarettes were used as a form of currency or means of control to achieve compliance and develop a rapport with patients.
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- Staff, from inpatient and outpatient settings, have the misconception that patients with mental health conditions are not able to stop smoking; with some staff from inpatient and outpatient settings actively discouraging patients from quitting. However, other staff, from inpatient and outpatient settings, felt that the patients should have their smoking addressed.
  - The smoking status of the staff, predominately from inpatient settings, was a barrier to providing smoking cessation support, where smokers were more likely to have negative views about smoking cessation and reduction. The overt use of tobacco by staff members was perceived as a barrier to patients' quitting smoking.
  - There were mixed beliefs regarding whether staff thought providing smoking cessation was part of their role, with the majority of staff from inpatient and outpatient settings feeling that it was not part of their role.



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- Community based psychiatrists perceived patients had a preoccupation with other health or medical complaints, and thus smoking cessation would not be a priority for patients.
- Staff from inpatient settings perceived quitting smoking would have a detrimental effect on the mental health symptoms of the patient, and mental health professionals were worried about the effect of quitting smoking on the effectiveness of the patients' medication for mental illnesses.
- Staff perceived barriers to quitting in patients are boredom; increased stress; tobacco dependence; a lack of motivation; social isolation; and a lack of alternative activities were barriers to quitting smoking in patients with mental illness.
- Difficulties in engaging with and retaining patients in a tobacco dependence service were sometimes encountered and ascribed to factors relating to motivation and attention.
- Many staff lacked formal training in smoking cessation. Staff felt a lack of confidence in providing smoking cessation support to patients with mental health conditions resulting from a lack of training during their education and whilst in post, with education in behavioural support increasing confidence. Furthermore, staff described wanting more training in smoking cessation.
- Staff, predominately from outpatient settings, perceived the lack of prioritising smoking cessation support either in the mental health service or as part of the staff's workload, and the lack of setting targets for treating patients, were major barriers to offering stop smoking support.
- Staff, from inpatient and outpatient settings, perceived that they are not able to dedicate sufficient time to provide smoking cessation support during their role due to conflicting priorities.
- Staff, from inpatient and outpatient settings, perceived NRT was not effective in mental health populations for smoking cessation. Community based psychiatrists considered the safety of NRT use in adolescents and children with mental health conditions was a major barrier to using NRT for smoking cessation. Compliance with medication regimen, and a worry regarding whether NRT interfered with antipsychotic medications, were barriers to using NRT. Smoking cessation advisors reported staff had concerns regarding the 'harmful effect' and expense to the Trust of NRT
- Staff, predominately from outpatient settings in the US, thought a major barrier to providing smoking cessation support in patients with mental health conditions was the lack of resources and re-imburement for smoking cessation interventions from the state.
- Staff, predominately from inpatient settings, perceived patients had a lack of information and support relating to smoking cessation support.

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- Staff from the US, based on inpatient and outpatient settings, regularly asked the smoking status of patients with mental illness. Staff described routine systems were used to identify patients who smoked predominately from outpatient settings, including consulting the patients' chart; however, a substantial proportion of staff, predominately from outpatient settings, never document the smoking status of patients with mental illness.
- An audit from the UK identified whilst recording of smoking status was mandatory for inpatients, there was no such requirement for community based patients in a large Trust
- Rates of providing smoking cessation advice to patients in inpatient and outpatient settings varied considerably between studies; additionally, low rates for follow-up contacts relating to smoking cessation for their patients following support were seen in inpatient settings.
- Approximately half of staff from the US from inpatient and outpatient settings referred their patients to stop smoking services. However, stop smoking services in the UK never or rarely receive referrals from inpatients with mental illnesses. Additionally, the mental health status of clients attending stop smoking services in the UK is not known. An audit from the UK identified virtually no inpatients were referred to a NHS Stop Smoking Service.
- Staff perceived smoking cessation should be integrated into the inpatient based health care plan of the patient, and strong collaborations should be formed between key workers and doctors during the inpatient stay, and between inpatient and community teams. Additionally, smoking cessation and smoking reduction should be tailored to the needs of the inpatients with mental illness, with support being provided through local stop smoking services.
- Staff perceived smoking cessation support should be adopted first in practices in which there was a strong interest in smoking cessation.
- Implementing a tailored tobacco dependence service in the UK's largest mental health trust through the development of an integrated smoking care pathway, whilst offering flexible support for smoking cessation and reduction programmes through the use of dedicated staff to provide the service, resulted in a modest service uptake rate overall. However, in the inpatient setting, where smokers can be easily identified due to smoking status recording being mandatory, almost a quarter of all smokers engaged with the service.

None or very few studies were identified which assessed:

- The views, attitudes, and beliefs of household members and relatives of patients with mental illness regarding barriers of, and facilitators for, smoking cessation
- Views, attitudes, and beliefs, regarding barriers of, and facilitators for, using interventions for temporary abstinence
- Whether there were differences in views, attitudes and beliefs by age, gender, socioeconomic status, sexual orientation, disability, religion, and severity of dependence.

The review was conducted whilst adhering to a high methodological quality where a comprehensive and systematic search strategy was used based on searching multiple electronic databases, websites, and reference screening. Additionally, double screening of titles, abstracts and full texts were performed independently, and moderate agreements rates were seen for screening, data extraction and quality assessments. However, the review is not without limitations. Due to tight time constraints, authors of the original studies could not be contacted to provide further information where necessary. Additionally, the evidence from this review is based predominately on a narrative summary rather than using a formal meta-synthesis approach. However, this review highlights the urgent need for further high quality research to be performed to assess the views, attitudes and beliefs of patients, staff members and relatives so that a full assessment can be made regarding whether the acceptability of interventions for smoking cessation and temporary abstinence differ by age, gender, socioeconomic status, sexual orientation, disability, religion, and severity of dependence.

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