National Institute for Health and Care Excellence

Final

Self-harm: assessment, management and preventing recurrence

[F] Evidence review for assessment in specialist settings

NICE guideline number NG225

Evidence reviews underpinning recommendations 1.5.1 to 1.5.17 in the NICE guideline

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Review question

How should assessment for people who have self-harmed be undertaken in specialist settings, such as: community mental health services, emergency departments (by specialist staff), inpatient mental health services?

Introduction

People who have self-harmed frequently present to Emergency Departments (EDs) for mental and physical health assessment. People who are under the care of Community Mental Health Services and who are inpatients in psychiatric wards represent a population with high rates of self-harm. Assessment is a key factor in establishing a positive therapeutic relationship with health services and in ensuring that people receive the treatment that they need, both for their physical and mental health. The aim of this review is to identify how assessment should be undertaken in specialist settings.

Summary of the protocol

See Table 1 for a summary of the Population, Intervention, Comparison and Outcome (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	Inclusion: All people who have self-harmed, including those with a mental health problem, neurodevelopmental disorder or a learning disability, who have presented to a specialist mental health services. Exclusion: • People displaying repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability • People who have self-harmed who have presented to non-specialist settings
Intervention	Model of assessment A, for example, • assessment including principles of active listening, • therapeutic assessment, • comprehensive biopsychosocial assessment, • assessment performed by different professions [such as psychiatric nurses], • culturally sensitive assessment

Comparator	Model of assessment B, for example, • assessment not including principles of active listening, • triage assessment, • assessment performed by different professions [such as doctors], • uniform assessment (that is, not taking culture into account)
Outcome	**Critical** • Self-harm repetition (for example, self-poisoning or self-cutting) • Service user satisfaction (dignity, compassion and respect) • Suicide **Important** • Quality of life • Initiation of safeguarding procedures • Distress • Engagement with after-care

For further details, see the review protocol in appendix A.

Methods and process

A modified version of the GRADE approach to rate the certainty of evidence in systematic reviews was used as part of a pilot project undertaken by NICE. Instead of using predefined clinical decision/minimal important difference (MID) thresholds to assess imprecision in GRADE tables, imprecision was assessed qualitatively during committee discussions. Other than this modification, GRADE was used to assess the quality of evidence for the selected outcomes and this evidence review developed using the methods and process described in Developing NICE guidelines: the manual. Methods specific to this review question are described in the review protocol in appendix A and the methods document (supplementary document 1).

Declarations of interest were recorded according to NICE's conflicts of interest policy.

Effectiveness evidence

Included studies

Three studies reported in 4 publications were included in this review. Two of these were randomised controlled trials (RCTs: Johnson 2018, Ougrin 2011, Ougrin 2013). Two of these publications reported results from the same study (Ougrin 2011, Ougrin 2013). One study was a non-randomised prospective cohort study (Pitman 2020).

These included studies are summarised in Table 2.

Two studies were conducted in a UK setting (Ougrin 2011, Ougrin 2013, Pitman 2020), and 1 was from the USA (Johnson 2018).

Two studies included individuals presenting with an episode of self-harm (Ougrin 2011, Ougrin 2013, Pitman 2020): 1 focused on adolescents aged 12–18 years who were not engaged with psychiatric services and who had self-harmed and been referred for a psychosocial assessment (Ougrin 2011, Ougrin 2013), and the other study analysed presentations of self-harm to hospital (Pitman 2020). The third study included veterans recruited from an inpatient psychiatry unit following a recent suicide attempt or for whom suicidal ideation was a presenting problem (Johnson 2018).

The 2 RCTs compared different types of assessment. Ougrin (2011/ 2013) compared therapeutic assessment with assessment as usual, while Johnson 2018 compared 'usual assessment group therapy' with 'suicide status form assessment group therapy'. The cohort study (Pitman 2020) compared assessment by a psychiatrist with assessment by a psychiatric nurse.

See the literature search strategy in appendix B and study selection flow chart in appendix C.

Excluded studies

Studies not included in this review are listed, and reasons for their exclusion are provided, in appendix J.

Summary of included studies

Summaries of the studies that were included in this review are presented in Table 2.

Table 2: Summary of included studies

Study	Population	Intervention	Comparison	Outcomes
Johnson 2018 Randomised controlled trial USA	N=134 veterans recruited from an inpatient psychiatry unit following a recent suicide attempt or for whom suicidal ideation was a presenting problem •	**Suicide status form assessment group therapy (SSF-AGT)** • n=65Co-led by 2 therapists (licensed clinical psychologist and a licensed clinical social worker)*, and comprised up to 12 participants; • group co-leader worked with the individual to complete sections A and B of the SSF initial session form (concerned with overall risk assessment). • Individual completion of Section A of the SSF tracking form, which asked patients to: (1) rate their current levels of psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide using a 1–5	**Usual assessment group therapy (UAGT)** • n=69 : • Co-led by 2 therapists (licensed clinical psychologist and a licensed clinical social worker)*, and comprised up to 12 participants. • co-leaders applied informal risk assessment techniques, specifically, asking each group member at the outset of group, "How have you been doing in the past week with suicidal thoughts, plans, intent," and so on	**Critical** • Satisfaction (3 months after assessment) **Important** • Overall symptom distress (1 and 3 months after assessment) • Number of sessions of follow-up attended (1 and 3 months after assessment)

Study	Population	Intervention	Comparison	Outcomes
		rating scale; and (2) report the presence of suicidal thoughts, ability to manage suicidal urges, and suicide behaviours **since the last session**. • Each group member then reported on their scores and replies to the questions on the form. • Group discussion. • Groups were held weekly up to 12 sessions. • Upon discharge from inpatient treatment, each participant was scheduled into the next session of his/her treatment group * The same therapists led both groups	• Group discussion would then follow from whatever was identified in the check-in. • Groups were held weekly up to 12 sessions. • Upon discharge from inpatient treatment, each participant was scheduled into the next session of his/her treatment group.	
Ougrin 2013; Ougrin 2011 Randomised controlled trial UK	N=70 adolescents aged 12-18 years who were not engaged with psychiatric services and who had self-harmed and been referred for a psychosocial assessment. •	Therapeutic assessment: • n=35 • standard psychosocial history and risk assessment (1 hour); • joint construction of diagram consisting of reciprocal roles, core pain and maladaptive procedures; • identification of target problem; • considering and enhancing motivation for change; • exploring potential 'exits' (ways of breaking the vicious cycles identified); • describing the diagram and exits in an understanding letter to the family alongside usual assessment letter	Assessment as usual: • n=35 • standard psychosocial history and risk assessment per NICE Guidelines • assessment letter to community team and copy to family	**Critical** • Presentation to A&E with self-harm (24 months after assessment) • Repeat self-harm (24 months after assessment) **Important** • Attendance of treatment sessions in CAMHS (1, 3, 12, and 24 months after assessment)

Study	Population	Intervention	Comparison	Outcomes
Pitman 2020 Prospective non-randomised cohort UK	N=9644 individuals presenting to hospital following self-harm •	Psychosocial assessment by psychiatrist: • n=4159	Psychosocial assessment by psychiatric nurse: • n=5485	**Critical** • Repeat hospital presentation for self-harm within 12 months **Important** • None

A&E: accident and emergency; CAMHS: Community and Mental Health Services; SD: standard deviation; SSF-AGT: Suicide status form assessment group therapy; UAGT: usual assessment group therapy; vs: versus

See the full evidence tables in appendix D.

Summary of the evidence

One study (Ougrin 2011/ 2013) compared therapeutic assessment with assessment as usual in adolescents who had self-harmed. No significant differences in ED presentations with self-harm or total number of episodes of self-harm were identified between the groups at 24 months (low-to-moderate quality). The outcome 'engagement with follow-up' was reported at 1, 3, 12, and 24 months. Attendance at first follow-up (1 month) was significantly higher in the therapeutic assessment group compared with the assessment as usual group (moderate quality). Participants in the therapeutic assessment group were more likely to attend ≥4 sessions of routine community treatment in the 3 months after assessment than individuals in the assessment as usual group (moderate quality). Over the longer term (at 12 and 24 months) engagement with treatment remained higher in the therapeutic assessment group compared with assessment as usual (low quality).

One study (Johnson 2018) compared 'suicide status form assessment group therapy with 'usual assessment group therapy' in veterans discharged from an inpatient psychiatry setting. The study reported the outcomes of satisfaction, distress and engagement with follow-up. No significant differences in satisfaction were identified between groups at 3 months (very low quality). No significant differences between groups in overall symptom distress were observed at 1 month, or 3 months following assessment (very low quality). No significant differences between groups were observed in attendance of follow-up at 1 month or 3 months following assessment (very low quality).

One study (Pitman 2020) compared assessment of individuals presenting with self-harm in ED by psychiatrists and psychiatric nurses. The study reported the outcome of self-harm repetition. No significant difference in repeat self-harm was identified between individuals assessed by a psychiatrist compared with those assessed by a psychiatric nurse (low quality). Results from unadjusted and adjusted statistical models (model 1 adjusted for: age at presentation, method of self-harm, hour of presentation, and year of presentation; model 2 adjusted for: age at presentation, method of self-harm, hour of presentation, year of presentation; and aftercare) were consistent (low quality).

None of the included studies reported the following outcomes: suicide, quality of life or initiation of safeguarding procedures.

See appendix F for full GRADE tables.

Economic evidence

Included studies

A single economic search was undertaken for all topics included in the scope of this guideline but no economic studies were identified which were applicable to this review question. See the literature search strategy in appendix B and economic study selection flow chart in appendix G.

Excluded studies

Economic studies not included in the guideline economic literature review are listed, and reasons for their exclusion are provided in appendix J.

Economic model

No economic modelling was undertaken for this review because the committee agreed that other topics were higher priorities for economic evaluation.

Evidence statements

Economic

No economic studies were identified which were applicable to this review question.

The committee's discussion and interpretation of the evidence

The outcomes that matter most

Self-harm repetition, suicide and service user satisfaction were prioritised as critical outcomes by the committee. Self-harm repetition and suicide were prioritised as critical outcomes because they are direct measures of any differential effectiveness associated with the types of assessment and capture both fatal and non-fatal self-harm. Service user satisfaction was chosen as a critical outcome due to the importance of delivering services which are empowering and centred around the patient's experiences, and because patient satisfaction is likely to influence whether the patient engages with the intervention.

Initiating safeguarding procedures, distress, engagement with after-care, and quality of life were considered important outcomes by the committee. Engagement with after-care was chosen as an important outcome because repetition of self-harm is common after initial assessment and the assessment may therefore have indicated a need for further care. However, if the type of assessment influences the likelihood of whether a person who has self-harmed both has access to and attends follow-up sessions, then this will influence whether after-care will be effective. Quality of life was chosen as an important outcome as it is a multidimensional concept encompassing health-related outcomes beyond those of repeat self-harm or survival. Distress was chosen as an important outcome as, given that self-harm is an expression of personal distress, different assessment types may affect an individual distress levels in different ways. The committee agreed that patients sometimes feel the care that is offered after an episode of self-harm can increase rather than reduce their distress, which can deter patients from seeking care in future. Initiation of safeguarding procedures following assessment was considered an important outcome because domestic violence, childhood abuse and maltreatment, and other forms of abuse and exploitation increase rates of self-harm, and self-harm may be the first indicator of abuse. Repetition of

self-harm is common after initial assessment. Assessment may identify individuals for whom the initiation of safeguarding procedures may be necessary and may reduce rates of repeat self-harm.

The quality of the evidence

When assessed using GRADE methodology the evidence was found to range in quality from very low to moderate quality. In all cases, the evidence was downgraded due to risk of bias as per Cochrane RoB 2.0 or ROBINS-I (for example, due to missing data or lack of blinding), and in one case it was also downgraded due to indirectness as the study was conducted in a non-UK setting.

There was no evidence identified for a number of interventions and comparisons, including: assessments including principles of active listening; comprehensive biopsychosocial assessment; culturally sensitive assessment. Additionally, no evidence was identified for the following outcomes: suicide; quality of life; initiation of safeguarding procedures.

Imprecision and clinical importance of effects

The committee discussed the evidence and agreed that, as the quality of the majority of the evidence was either low or very low and found no important difference in a number of outcomes, most of the evidence presented did not allow them to make strong recommendations on the overall benefit or potential harm of specific models of assessment in specialist settings. The committee also qualitatively discussed imprecision for each of the interventions and agreed that none of the treatment effects were likely to be clinically meaningful.

One study (Johnson 2018) compared therapeutic group assessment using the Suicide Status Form against therapeutic group assessment using informal questions, however this study was of limited applicability as the population was veterans recently discharged from an inpatient psychiatry setting and the study was conducted in a non-UK setting. Due to the lack of applicability of the study and the very low quality of the evidence, the committee did not feel confident recommending use of the Suicide Assessment Form. One study (Pitman 2020) looked at whether who conducted the assessment affected outcomes, comparing assessment completed by a psychiatrist against assessment completed by a psychiatric nurse. The quality of this evidence was low and the study found no overall differences in repeat self-harm between groups, so the committee did not feel confident making recommendations relating to which professionals should carry out assessment for people who have self-harmed. Overall only 1 study (Ougrin 2011/ 2013) reported findings of moderate quality, and this study found no important difference in terms of A&E presentations with self-harm when comparing Therapeutic Assessment for young people with assessment as usual, but an important benefit in terms of attendance of treatment sessions at CAMHS at 1 and 3 months' follow-up. This study also found no important difference in total recorded self-harm episodes and an important benefit in attendance of treatment sessions at CAMHS at 12 and 24 months' follow-up, however the committee agreed during their qualitative discussion of imprecision that there was serious imprecision in the evidence regarding these outcomes, due to uncertainty around the estimates. Overall, the committee agreed that the estimated benefit in engagement with services in the short term for participants who received Therapeutic Assessment was worth taking into consideration when drafting the recommendations. The committee therefore used the moderate quality evidence from Ougrin 2011/ 2013 and their own knowledge and experience to draft the recommendations, taking into account existing concerns in current practice.

The committee agreed not to prioritise this area for research recommendations despite the poor quality of the evidence as other areas of the guideline were deemed more necessary to prioritise.

Benefits and harms

In advance of the discussion of recommendations, the committee agreed that there was never a scenario in which a psychosocial assessment should not be offered to the person who had self-harmed. The committee discussed that there may be a belief that withholding assessment or treatment for episodes of self-harm is therapeutic and will reduce the frequency of self-harm; this belief is based on a mistaken understanding of behavioural change theory and contingency management.

The committee made recommendations in part split according to setting specialty, and in part split according to staff speciality. This was because both specialist and non-specialist staff work in some settings, such as EDs, making it difficult to define these settings as either specialist or non-specialist. The committee agreed that in these situations, staff with different levels of responsibility would provide different assessments for people who have self-harmed, regardless of setting type.

The committee agreed that it is a commonly accepted principle that a psychosocial assessment must be offered to all people presenting for self-harm. The committee discussed existing concerns around assessments that were conducted remotely, without contact with the person who had self-harmed, for example by reviewing case notes or from discussions between clinicians. The committee agreed that the person should always be involved in their own assessment in order to avoid incorrect assumptions being made, or inaccuracies in case notes being replicated, potentially leading to inappropriate care planning and the provision of care and support not based on the individual's needs. The committee discussed whether assessments should always be held face-to-face but ultimately agreed that this may not always be appropriate or possible, and that the key point to emphasise is therefore that an assessment should always include direct communication with the person, whichever way is most appropriate. The committee agreed that the assessment should have the aims of understanding and engaging people who have self-harmed, with the goal of initiating a therapeutic relationship. However, the committee felt that a psychosocial assessment should also have other key aims. The committee agreed based on their expertise that assessments should be undertaken with the aim of understanding why the person has self-harmed and facilitating the person's access to care, to ensure they receive appropriate treatment and support and to provide information to the person who had self-harmed and their family members or carers. This recommendation was also based on qualitative evidence from the review on specialist staff skills (evidence report P), which showed that staff and people who had self-harmed though ti was important that staff took the time to explore the person's reasons for self-harming. Evidence also showed that a model of assessment that provided information to family members had a positive effect on engagement with follow-up services. The committee felt that these recommendations would reduce the chance of future self-harm, encourage help seeking and improve service user satisfaction. The committee agreed that patient factors are often cited as a barrier to engagement with care for people who self-harm, but clinician attitudes and systemic barriers to access are equally important.

The committee agreed that assessments should not be delayed until after treatment for the physical consequences of self-harm was complete, and that it was important to emphasise the necessity of prioritising a psychosocial assessment. The committee agreed that the best approach would usually be for psychosocial assessment to be carried out concurrently with medical assessment, as this could lead to improved service user satisfaction and supports the provision of appropriate mental and physical health care. In the emergency department, this means that specialist mental health professionals should arrive promptly and should

work alongside physical health colleagues during the initial assessment and treatment process.

The committee agreed, based on their knowledge and experience that a psychosocial assessment is essential after an episode of self-harm, and that delaying an assessment for someone who had self-harmed for any reason was a cause for concern, as this could result in inappropriate treatment being given at all later stages in the person's care. The committee discussed their concerns regarding the potential for staff to use intoxication as an excuse not to give a psychosocial assessment, and agreed that there are scenarios where a mildly intoxicated person may still be capable of providing accurate answers to assessment. However, they also discussed the fact that it may be unethical to do an assessment if the person is severely intoxicated, as they might be more likely to provide inaccurate or incorrect answers, or say something they may later regret. As a result, the committee agreed that specialist staff should review whether the person is able to meaningfully engage with the assessment in collaboration with the person. They agreed, based on their knowledge and experience, that this would prevent staff members from automatically refusing assessment on the grounds of intoxication, but encourage staff to consult with the patient and use their professional judgment to decide when performing an assessment would be unethical at that moment. The committee agreed that psychosocial assessments are still a priority in these situations and that delays can be problematic, and therefore recommended that patients should be regularly reviewed so that an assessment can take place as soon as appropriate.

The recommendation about breath and blood levels was based on the committee's knowledge that breathalysers and blood alcohol tests did not accurately assess the ability of a person to meaningfully engage with an assessment, and therefore could be used to wrongly deny someone an assessment. In their experience, the committee agreed that breathalysers and blood alcohol tests could cause harm to someone who has self-harmed by delaying assessment.

The recommendation that an assessment should follow any existing care management plan was based on the committee’s experience and expertise. The committee discussed the fact that people who self-harmed frequently sometimes had care plans in place and that there was a risk that a full in-depth assessment might not be appropriate, especially for someone who had already had one that day, for example. The committee agreed that such plans had usually been agreed in collaboration with the person who had self-harmed, and therefore existing plans should be incorporated into assessment in order to improve service user satisfaction. However, the committee agreed that this did not override the importance of offering psychosocial assessment for each episode of self-harm: the decision to limit the extent of assessment and to follow an existing care plan should be made jointly between clinicians and the person themselves.

The recommendation that an assessment should take place in a private area was based on the committee’s experience that when assessments took place in a public space or in a screened-off space where the assessment could be overheard, it was likely that the person who had self-harmed would feel self-conscious or as though they were not being taken seriously, and would feel unable to talk candidly about confidential and sensitive topics. The committee agreed that an area should be designated for assessment purposes and that this area should be appropriate for discussing private matters where other people cannot walk through or overhear. Evidence from the qualitative review on the information and support needs of people who have self-harmed (see Evidence Report A) also showed that people valued privacy as well as having a safe and trusted environment in which they can feel comfortable discussing self-harm.

The committee discussed their experience that people who had self-harmed often had preferences about how they wanted to receive an assessment, including whether they

wanted their assessment to be completed by a man or a woman, which would allow them to feel more comfortable and therefore more likely to engage with services. The committee agreed based on their experience that it was important to consider the person's preferences and accommodate them where possible, as this could have the important benefit of increasing patient satisfaction. The committee agreed that appropriate adaptations to assessments should also be made for people with a learning disability or physical, mental health or neurodevelopmental conditions based on their experience that psychosocial assessments could be intimidating or disruptive for some people. The committee also discussed the fact that people may have specific communication needs in order for an assessment to be adequately conducted (including people for whom English is not a first language) and therefore agreed that these needs should be taken into account in order to improve accessibility and allow for a higher quality of care that was tailored to the needs of the individual.

The committee discussed the elements of the Therapeutic Assessment model employed in Ougrin 2011/ 2013 and agreed that certain features of the assessment model should be included in a psychosocial assessment in specialist settings. The evidence showed an assessment model including identification of the functions of self-harm, including the target problem, resulted in better engagement with follow-up. The committee therefore discussed whether it was useful to assess the motivation behind each individual incident for people who repeat self-harm and felt there were benefits to doing so, including improved patient satisfaction and better engagement with services as a result of a more tailored assessment. The committee identified the fact that repeating this part of an assessment may be unnecessary for people who presented multiple times. However, the consensus was that it was important to identify the functions of self-harm for the person at each assessment, as the same person could have different motivations for each episode of self-harm and it could pose a risk to assume previous assessments were still relevant. The committee agreed that investigation of the person's values and wishes should always be prioritised, to ensure assessment will lead to person-centred care. They also agreed that an assessment should allow for staff members to exercise their own clinical judgment regarding the person's need for specific elements of care such as interventions, support, and referral to other services including social care and rehabilitation, for example. Consideration of these factors should be supplemented by the person's preferences, based on the committee's experience that doing so could result in improved quality of care and encourage better engagement with services. The committee agreed this would facilitate addressing both the psychological and the social aspects contributing to a person's reason for self-harming. The committee additionally discussed the need to consider the intersection between self-harm and coexisting conditions such as learning disability, neurodevelopmental conditions, or mental health problems, as this can also inform care planning further down the care pathway. The involvement of family and carers in the assessment should be considered, as other qualitative evidence from the review on involving family and carers (Evidence report D) showed that people who had self-harmed and their family members and carers perceived an improvement in the quality of care when they were involved in the person's care.

The committee agreed that any psychosocial assessment should include an assessment of the individual's strengths, vulnerabilities, and needs, including interpersonal factors, social characteristics, life difficulties (such as financial problems), and healthcare history, which could be triggers for self-harm or linked to higher rates of self-harm. The recommendations about what factors a comprehensive psychosocial assessment should explore were based primarily on the committee's experience and expertise, supplemented by the moderate quality evidence from this review. The committee considered the evidence from the Ougrin 2011/ 2013 study, which showed that Therapeutic Assessment that included consideration and enhancement of motivation for change, as well as an exploration of ways of breaking identified 'vicious cycles' resulted in better engagement with follow-up. The committee agreed that an assessment should look at the skills and strengths of the person who has

self-harmed as well as potential existing strategies they use to cope, as these could have the important benefit of helping the person to develop ways to manage the urge to self-harm, or support the development of existing coping strategies to be more effective. The committee also discussed whether a diagnostic element that considered underlying psychiatric conditions such as depression or obsessive-compulsive disorder should remain part of the assessment, and considered the possible risk that this could undermine the importance of focusing on self-harm as a phenomenon in its own right. However, the committee felt that self-harm should not be seen as a homogenous expression of distress and that there were a number of benefits to considering potential psychiatric diagnoses during assessment, such as facilitating the provision of important evidence-based interventions for these conditions. The committee also felt that it was important not to overlook the fact that people with undiagnosed neurodevelopmental conditions who require specific care and support may present with self-harm. The evidence showed that an assessment model that featured consideration of 'reciprocal roles' (internal working models of relationships), core pain and maladaptive procedures (ways of coping that ultimately increase distress) had the important benefit of increasing engagement with follow-up. The committee agreed based on their expertise that assessments should take into account a history of trauma so that any treatment plan could be informed by it, as trauma can often be a causal factor for self-harm. The committee agreed it is important to support the person to disclose a history of trauma, but clinicians should also be sensitive to how much the person might be willing to discuss details of trauma during a crisis. Other factors the committee considered important included safeguarding risks, which the committee agreed could exist for people of all ages, and therefore consideration for safeguarding issues, including domestic violence, should be included in assessments for all people who had self-harmed. Additionally, the committee agreed based on their experience that it is important to consider the person's ongoing access to means of self-harm in order to reduce rates of repeat self-harm. This discussion should be carried out collaboratively in order to reach a shared plan to reduce access to means. The committee also agreed based on their knowledge and experience that intoxication can have significant interactions with self-harm, that new triggers and vulnerabilities can arise due to withdrawal where the person who had self-harmed was dependent on drugs or alcohol, and that it is important to inquire about drugs and alcohol in terms of access to further means of self-harm. The committee therefore agreed that substance misuse should be included in the assessment. In addition, the committee discussed their experience that not infrequently, people who have self-harmed present under the influence of drugs or alcohol, and felt that while psychosocial assessment should never be unnecessarily delayed, special consideration should be given to the timing of assessment in people who are intoxicated. Another factor the committee considered important to investigate in a psychosocial assessment were the needs of dependent children, and they discussed the fact that often people had dependents who were not children. The recommendation that cultural considerations should be included in an assessment was based on the committee's knowledge that cultural sensitivity could provide a benefit of more tailored care and improve the person's engagement with services, as well as qualitative evidence from the review on specialist staff skills which confirmed that some people who had self-harmed wanted the impact of cultural, social and demographic factors on self-harm to be considered during their care. The committee also discussed further considerations for people from protected or marginalised groups, based on their experience that methods of self-harm might differ for people in protected groups and that assessment would need to be respectful of these factors. The committee agreed that it was important to include the impact of discrimination in a psychosocial assessment based on their understanding that discrimination was often a key factor in trauma and could be a causal factor for self-harm. Finally, based on their expertise, the committee discussed the fact that social media usage could have both positive and negative effects on risk of self-harm, due to the accessibility of both self-help resources and peer support, as well as potentially distressing content. They agreed that social media was often viewed more negatively by healthcare professionals but that it was important to acknowledge the potential positive effect of it on people who have self-harmed as well. The

committee agreed this factor should not just be investigated for children and young people, due to the widespread use of social media and smartphones by people of all ages. The committee agreed that the individual's perspective on their ability to manage their own distress was also important to consider, because a lack of hope or belief in their own emotional capacity and abilities could lead to repeat self-harm. The committee agreed that considering these factors would result in a more accurate assessment that would thereby improve care planning.

Based on the above discussions, the committee agreed on the importance of a number of specific factors that should be considered when providing an assessment, but stressed this is not an exhaustive list and that clinicians should exercise their professional judgment when considering which factors should be prioritised for investigation depending on the person's individual circumstances:

- historic factors, including but not limited to:
    - vulnerabilities, including those related to age, race, religion, gender identity, sexual orientation, linguistic and cultural factors
    - past self-harm and/or suicidal behaviours
    - adverse childhood events
    - history of trauma, if the person feels able to discuss this in the acute context
    - family history of suicide
    - any mental health and/or neurodevelopmental condition and its relationship to self-harm
    - treatments

- changeable and current factors, including but not limited to:
    - recent and current life difficulties
    - recent or ongoing trauma
    - ability to engage in work or educational activities
    - methods and frequency of current self-harm, including their ongoing access to methods of self-harm
    - prescribed medicines
    - current suicidal thoughts and behaviours
    - significant relationships and changes to them
    - threats of abuse or harm (see Evidence report C on consent, confidentiality and safeguarding)
    - the needs of any dependents and any safeguarding issues
    - harmful or hazardous use of alcohol or recreational drugs
    - any personal, financial, social or other factors preceding self-harm, such as emotional distress
    - the benefits and harms of social media and internet resources

- future factors, including specific upcoming events or circumstances

- protective or mitigating factors, including but not limited to:
    - coping strategies (social, psychological, pharmacological) that the person has used to:
        - limit or avert self-harm **or**
        - minimise the impact of personal, social or other factors preceding episodes of self-harm
    - supportive personal and family relationships
    - support from statutory or third sector services
    - the person's and their family and carers' (as appropriate) perspective about their ability to manage their distress.

The committee agreed that psychosocial assessments of children and young people, and older people who have self-harmed need to be age-appropriate and factor in the circumstances that are unique to these populations. They therefore recommended that the mental health professional carrying out the psychosocial assessment needs to be experienced in assessing children and young people who self-harm. The committee agreed to emphasise the need to assess the social, peer group, education and home situations of children and young people because these factors are particularly likely to impact the functions of self-harm in this population. They acknowledged that having caring responsibilities could factor into self-harm for people of all ages, but that it was particularly important to consider how these responsibilities might affect a child or young person. Similarly, while people of all ages use social media and the internet, children and young people were noted by the committee to be a particularly vulnerable group with regards to how the use of social media and the internet could impact their mental health and wellbeing, in both positive and negative ways. For example, the committee agreed that it is common for children and young people to seek connection with peers, and this could have the benefit of peer support, as well as posing a number of safeguarding risks. Additionally, specific consideration should be given to children and young people regarding child protection or safeguarding issues, because this population is particularly vulnerable to abuse, violence and exploitation. The committee agreed that paying additional attention to these factors for children and young people who had self-harmed would reduce the potential for inappropriate interventions or follow-up to be offered because of an incomplete assessment.

The committee also recommended that any mental health professional carrying out a psychosocial assessment for an older person who has self-harmed needs to be experienced in doing so for this population. The committee agreed that older people who have self-harmed should have potential coexisting conditions taken into particular consideration, based on their knowledge that older people tend to be at higher risk for poor physical or mental health. They agreed that additional consideration should be given to older peoples' social and home situation, as well the fact that people in this age group experienced higher rates of loneliness, isolation, and suicide. The committee agreed that paying additional attention to these factors for older people who had self-harmed would reduce the potential for inappropriate interventions or follow-up to be offered because of an incomplete assessment.

The committee agreed that people with a learning disability who have self-harmed have particular needs that require the person providing their assessment to be experienced in assessing this population. The committee agreed this would improve the quality of care provided and ensure appropriate adaptions can be facilitated as needed.

The Healthcare Safety Information Branch (HSIB) report on investigation into the provision of mental health care to patients presenting at the emergency department (2018) informed the recommendation that the immediate safety concerns and any mental health problems of people who wish to leave before treatment is complete should be assessed. The committee agreed this would ensure patients who leave who are most in need of urgent follow-up can be identified, allowing staff to prioritise the delivery of initial aftercare to this population, and potentially reducing rates of repeat self-harm or suicide soon after the person has left.

The committee agreed that a psychosocial assessment should be used to develop a care plan, or, where the person already had one, to review it. In addition, the recommendation that family and carers should be included in the development of a care plan when appropriate was consistent with qualitative evidence from the review on involving family and carers, which showed that some people who had self-harmed and their family members and carers wanted family members and carers to be involved in the person's care.

The committee agreed that providing the person with a copy of their care plan would increase transparency, improving trust between service user and provider, based on the committee's experience. Additionally, the committee agreed that providing any other relevant healthcare professionals with the care management plan would ensure all staff are up-to-date regarding the wants and needs of the person, improving the quality of their care and their transition between services.

There was insufficient evidence for the committee to define how frequent attendance for self-harm would have to be to trigger a multidisciplinary review. However, the committee agreed that this recommendation was still important based on their knowledge that the individual circumstances of the person, including whether they are continuing to self-harm, should be assessed to evaluate whether a multidisciplinary review is necessary. The committee agreed that a multidisciplinary review should enable staff to reconsider current care, finding the most suitable care approach for the person and therefore preventing further repeat self-harm.

Cost effectiveness and resource use

The committee noted that no relevant published economic evaluations had been identified and no additional economic analysis had been undertaken in this area. They drafted recommendations aimed to reduce variation across the NHS specialist mental health services in delivering psychosocial assessments after self-harm. The committee acknowledged the costs associated with psychosocial assessment but advised that this is essential after an episode of self-harm and potentially harmful if delayed. They expressed the view that psychosocial assessment which incorporates therapeutic elements such as identification of the target problem, takes into account the preferences of the person who has self-harmed, and involves family members and carers, as appropriate, is likely to improve quality of care, facilitate access to care, and enhance service user satisfaction and engagement. The committee also expressed the opinion that, although special considerations, provisions and adjustments for children and young people as well as older adults in order to carry out the psychosocial assessment might increase the cost of the assessment (for example, use of specially designated private areas to carry out the assessment, giving a choice of a male or female health professional, availability of specialist staff experienced in assessing older people), these would promote safeguarding for children and young people and improve outcomes for protected groups resulting from a more tailored assessment for the individual. The committee expressed the view that the majority of recommendations are based on existing recommended practice and that the additional recommended approaches for carrying out psychosocial assessments by mental health professionals should have a minimal effect on costs and not result in a significant resource impact, depending on how services currently assess people who self-harmed.

Recommendations supported by this evidence review

This evidence review supports recommendations 1.5.1 – 1.5.17. Other evidence supporting these recommendations can be found in the evidence reviews on specialist and non-specialist staff skills (Evidence reports P and R).

References – included studies

Effectiveness

Study
Johnson, L. L., O'Connor, S. S., Kaminer, B. et al. (2018) Evaluation of Structured Assessment and Mediating Factors of Suicide-Focused Group Therapy for Veterans Recently Discharged from Inpatient Psychiatry. Archives of Suicide Research: 1-19
Ougrin, D., Boege, I., Stahl, D. et al. (2013) Randomised controlled trial of therapeutic assessment versus usual assessment in adolescents with self-harm: 2-year follow-up. Archives of Disease in Childhood 98: 772-6
Ougrin, D., Zundel, T., Ng, A. et al. (2011) Trial of Therapeutic Assessment in London: randomised controlled trial of Therapeutic Assessment versus standard psychosocial assessment in adolescents presenting with self-harm. Archives of Disease in Childhood 96: 148-53
Pitman, A., Tsiachristas, A., Casey, D. et al. (2020) Comparing short-term risk of repeat self-harm after psychosocial assessment of patients who self-harm by psychiatrists or psychiatric nurses in a general hospital: Cohort study. Journal of affective disorders 272: 158-165

Economic

No studies were identified that met the inclusion criteria.

Appendices

Appendix A Review protocols

Review protocol for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

Table 3: Review protocol

Field	Content
PROSPERO registration number	CRD42020215427
Review title	Assessment in specialist settings
Review question	How should assessment for people who have self-harmed be undertaken in specialist settings, such as • community mental health services • emergency departments (by specialist staff) • inpatient mental heal services?
Objective	To identify how assessment should be undertaken in specialist settings.
Searches	The following databases will be searched: • Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • Database of Abstracts of Reviews of Effects (DARE) • Embase • Emcare • International Health Technology Assessment (IHTA) database • MEDLINE & MEDLINE In-Process • PsycINFO Searches will be restricted by: • English language studies • Human studies • Date: 2000 onwards as the current service context is different from pre-2000. Other searches:

Field	Content
	• Inclusion lists of systematic reviews • Reference lists of included studies The full search strategies will be published in the final review.
Condition or domain being studied	All people who have self-harmed, including those with a mental health problem, neurodevelopmental disorder or a learning disability. 'Self-harm' is defined as intentional self-poisoning or injury irrespective of the apparent purpose of the act. This does not include repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability.
Population	Inclusion: • All people who have self-harmed, including those with a mental health problem, neurodevelopmental disorder or a learning disability, who have presented to specialist mental health services Exclusion: • People displaying repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability • People who have self-harmed who have presented to non-specialist settings
Intervention	Model of assessment A, e.g., • assessment including principles of active listening, • therapeutic assessment, • comprehensive biopsychosocial assessment, • assessment performed by different professions [e.g., psychiatric nurses], • culturally sensitive assessment
Comparator/Reference standard/Confounding factors	Model of assessment B, e.g., • assessment not including principles of active listening, • triage assessment, • assessment performed by different professions [e.g., doctors], • uniform assessment (i.e., not taking culture into account)
Types of study to be included	• Systematic review of randomised controlled trials (RCTs) or non-randomised comparative prospective and retrospective cohort studies • RCTs • Non-randomised comparative prospective cohort studies with N≥100 per treatment arm • Non-randomised comparative retrospective cohort studies with N≥100 per treatment arm Conference abstracts will not be included. Non-randomised studies should adjust for the following covariates in their analysis when there are differences between groups at baseline: age, gender, previous self-harm, comorbidities (e.g. alcohol and drug misuse, psychiatric illness, physical illness), and current psychiatric

Field	Content
	treatment. Studies will be downgraded for risk of bias if important covariates are not adequately adjusted for, but will not be excluded for this reason.
Other exclusion criteria	Studies will not be included for the following reasons: Language: Non-English Publication status: Abstract only Studies published in languages other than English will not be considered due to time and resource constraints with translation.
Context	Settings: Inclusion: • Community mental health services • Emergency departments • Inpatient mental health services Exclusion: • Non-specialist settings
Primary outcomes (critical outcomes)	Critical: • Self-harm repetition (for example, self-poisoning or self-cutting) • Service user satisfaction (dignity, compassion and respect) • Suicide
Secondary outcomes (important outcomes)	Important: • Quality of life • Initiation of safeguarding procedures • Distress • Engagement with after-care
Data extraction (selection and coding)	All references identified by the searches and from other sources will be uploaded into EPPI and de-duplicated. Titles and abstracts of the retrieved citations will be screened to identify studies that potentially meet the inclusion criteria outlined in the review protocol. Dual sifting will be performed on 10% of records; 90% agreement is required. Disagreements will be resolved via discussion between the two reviewers, and consultation with senior staff if necessary.

Field	Content
	Full versions of the selected studies will be obtained for assessment. Studies that fail to meet the inclusion criteria once the full version has been checked will be excluded at this stage. Each study excluded after checking the full version will be listed, along with the reason for its exclusion. A standardised form will be used to extract data from studies. The following data will be extracted: study details (reference, country where study was carried out, type and dates), participant characteristics, inclusion and exclusion criteria, details of the interventions, setting and follow-up, relevant outcome data, risk of bias and source of funding. One reviewer will extract relevant data into a standardised form, and this will be quality assessed by a senior reviewer.
Risk of bias (quality) assessment	Quality assessment of individual studies will be performed using the following checklists: • ROBIS tool for systematic reviews • Cochrane RoB tool v.2 for RCTs and quasi-RCTs • Cochrane ROBINS-I tool for non-randomised (clinical) controlled trials and cohort studies The quality assessment will be performed by one reviewer and this will be quality assessed by a senior reviewer.
Strategy for data synthesis	Quantitative findings will be formally summarised in the review. Where multiple studies report on the same outcome for the same comparison, meta-analyses will be conducted using Cochrane Review Manager software. A fixed effect meta-analysis will be conducted and data will be presented as risk ratios if possible or odds ratios when required (for example if only available in this form in included studies) for dichotomous outcomes, and mean differences or standardised mean differences for continuous outcomes. Heterogeneity in the effect estimates of the individual studies will be assessed using the I2 statistic. I2 values of greater than 50% and 80% will be considered as significant and very significant heterogeneity, respectively. Heterogeneity will be explored as appropriate using sensitivity analyses and subgroup analyses based on identified covariates if they have not been adjusted for. If heterogeneity cannot be explained through subgroup analysis then a random effects model will be used for meta-analysis, or the data will not be pooled if the random effects model does not adequately address heterogeneity. The confidence in the findings across all available evidence will be evaluated for each outcome using an adaptation of the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox' developed by the international GRADE working group: http://www.gradeworkinggroup.org/
Analysis of sub-groups	Evidence (if data allows) will be stratified by: • Age group: ≥65 years, 18-64 years, 16-17 years, <16 • Setting: community mental health services, emergency departments, inpatient mental health services • First episode of self-harm v not first episode of self-harm
Type and method of review	Intervention
Language	English
Country	England
Anticipated or actual start date	7/10/2020
Anticipated completion date	26/01/2022

Field	Content
Stage of review at time of this submission	Review stage — Started — Completed Preliminary searches ☐ ☐ Piloting of the study selection process ☐ ☐ Formal screening of search results against eligibility criteria ☐ ☐ Data extraction ☐ ☐ Risk of bias (quality) assessment ☐ ☐ Data analysis ☐ ☐
Named contact	5a. Named contact: National Guideline Alliance 5b Named contact e-mail: selfharm@nice.org.uk 5e Organisational affiliation of the review: National Institute for Health and Care Excellence (NICE) and National Guideline Alliance
Review team members	National Guideline Alliance
Funding sources/sponsor	This systematic review is being completed by the National Guideline Alliance which receives funding from NICE.
Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10148.

Field	Content
Other registration details	None
URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=215427
Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: notifying registered stakeholders of publication publicising the guideline through NICE's newsletter and alerts issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.
Keywords	Self-harm, assessment, management, prevention, specialist, health care
Details of existing review of same topic by same authors	None
Current review status	Ongoing
Additional information	Not applicable
Details of final publication	www.nice.org.uk

CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; GRADE: Grading of Recommendations Assessment, Development and Evaluation; NGA: National Guideline Alliance; NICE: National Institute for Health and Care Excellence; RCT(s): randomised controlled trial(s); RevMan: review manager; RoB: risk of bias; ROBINS-I: Risk Of Bias In Non-randomized Studies - of Interventions

Appendix B Literature search strategies

Literature search strategies for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

Clinical

Database(s): MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily – OVID interface
Date of last search: 7th October 2020

#	searches
1	self mutilation/ or self-injurious behavior/ or suicidal ideation/ or suicide, attempted/ or suicide, completed/ or suicide/
2	(self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*).tw.
3	or/1-2
4	needs assessment/ or *outcome assessment, health care/ or nursing assessment/ or personality assessment/ or *process assessment, health care/ or risk assessment/
5	((psychologic* or mental health or psychiatric or psychometric* or psychosocial* or psycho social* or therapeutic) adj2 (assess* or evaluation*)).ti,ab.
6	((biopsychosocial or bio psychosocial) adj2 (assess* or evaluation* or index or instrument* or interview* or inventor* or item* or measure*1 or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)).ti,ab.
7	(assess* adj5 (clinician* or counsel?or* or doctor* or gp or lecturer* or neuropsychiatrist* or neuropsychologist* or neurospecialist* or nurs* or paramedic* or pharmacist* or police* or practitioner* or professional* or psychiatrist* or psychologist* or psychotherapist* or specialist* or staff* or teacher* or therapist* or warden* or worker*)).ti,ab.
8	(assess* adj5 (a&e or (acute adj3 (care or medicine)) or admission* or ambulance* or center* or centre* or cmhs or college* or communit* or criminal justice or department* or emergenc* or general practice or home*1 or hospital* or (intensive adj3 (care or medicine*)) or jail* or justice system* or penitentiar* or pharmacy or pharmacies or primary care or prison* or school* or setting* or (social adj2 (care or service* or setting* or ward*)) or universit* or ward*)).ti,ab.
9	(clinical adj1 (assess* or evaluat*)).ti,ab.
10	(assess* adj7 (african* or arabic* or asian* or bame or bangladeshi or black or bme or caribbean or chinese or cultur* or ethnic* or ethno* or indian* or multicultur* or multi cultur* or pakistani or race or racial)).ti,ab.
11	((self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or overdose* or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*) adj3 (assess* or evaluation*)).ti,ab. or ((self harm* or

#	searches
	selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or overdose* or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*) and assess*).ti.
12	(assessment* adj3 (index or instrument* or interview* or inventor* or item* or measure*1 or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)).ti,ab.
13	or/4-12
14	3 and 13
15	letter/ or editorial/ or news/ or exp historical article/ or anecdotes as topic/ or comment/ or case report/ or (letter or comment*).ti. or (animals not humans).sh. or exp animals, laboratory/ or exp animal experimentation/ or exp models, animal/ or exp rodentia/ or (rat or rats or mouse or mice).ti.
16	14 not 15
17	limit 16 to english language
18	limit 17 to yr="2000 -current"

Database(s): Embase and Emcare – OVID interface
Date of last search: 7th October 2020

#	searches
1	automutilation/ or exp suicidal behavior/
2	(self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*).tw.
3	or/1-2
4	needs assessment/ or *outcome assessment, health care/ or nursing assessment/ or personality assessment/ or *process assessment, health care/ or risk assessment/
5	((psychologic* or mental health or psychiatric or psychometric* or psychosocial* or psycho social* or therapeutic) adj2 (assess* or evaluation*)).ti,ab.
6	((biopsychosocial or bio psychosocial) adj2 (assess* or evaluation* or index or instrument* or interview* or inventor* or item* or measure*1 or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)).ti,ab.
7	(assess* adj5 (clinician* or counsel?or* or doctor* or gp or lecturer* or neuropsychiatrist* or neuropsychologist* or neurospecialist* or nurs* or paramedic* or pharmacist* or police* or practitioner* or professional* or psychiatrist* or psychologist* or psychotherapist* or specialist* or staff* or teacher* or therapist* or warden* or worker*)).ti,ab.
8	(assess* adj5 (a&e or (acute adj3 (care or medicine)) or admission* or ambulance* or center* or centre* or cmhs or college* or communit* or criminal justice or department* or emergenc* or general practice or home*1 or hospital* or (intensive adj3 (care or medicine*)) or jail* or justice system* or penitentiar* or pharmacy or

#	searches
	pharmacies or primary care or prison* or school* or setting* or (social adj2 (care or service* or setting* or ward*)) or universit* or ward*)).ti,ab.
9	(clinical adj1 (assess* or evaluat*)).ti,ab.
10	(assess* adj7 (african* or arabic* or asian* or bame or bangladeshi or black or bme or caribbean or chinese or cultur* or ethnic* or ethno* or indian* or multicultur* or multi cultur* or pakistani or race or racial)).ti,ab.
11	((self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or overdose* or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*) adj3 (assess* or evaluation*)).ti,ab. or ((self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or overdose* or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*) and assess*).ti.
12	(assessment* adj3 (index or instrument* or interview* or inventor* or item* or measure*1 or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)).ti,ab.
13	or/4-12
14	3 and 13
15	(animal/ not human/) or exp Animal Experiment/ or animal model/ or exp Experimental Animal/ or nonhuman/ or exp Rodent/ or (rat or rats or mouse or mice).ti.
16	14 not 15
17	limit 16 to english language
18	limit 17 to yr="2000 -current"

Database(s): PsycINFO – OVID interface
Date of last search: 7th October 2020

#	Searches
1	self-injurious behavior/ or self-destructive behavior/ or self-inflicted wounds/ or self-mutilation/ or self-poisoning/ or exp suicide/ or suicidal ideation/
2	(self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*).tw.
3	or/1-2
4	needs assessment/ or risk assessment/
5	((psychologic* or mental health or psychiatric or psychometric* or psychosocial* or psycho social* or therapeutic) adj2 (assess* or evaluation*)).ti,ab.
6	((biopsychosocial or bio psychosocial) adj2 (assess* or evaluation* or index or instrument* or interview* or inventor* or item* or measure*1 or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)).ti,ab.
7	(assess* adj5 (clinician* or counsel?or* or doctor* or gp or lecturer* or neuropsychiatrist* or neuropsychologist* or neurospecialist* or nurs* or paramedic*

#	Searches
	or pharmacist* or police* or practitioner* or professional* or psychiatrist* or psychologist* or psychotherapist* or specialist* or staff* or teacher* or therapist* or warden* or worker*)).ti,ab.
8	(assess* adj5 (a&e or (acute adj3 (care or medicine)) or admission* or ambulance* or center* or centre* or cmhs or college* or communit* or criminal justice or department* or emergenc* or general practice or home*1 or hospital* or (intensive adj3 (care or medicine*)) or jail* or justice system* or penitentiar* or pharmacy or pharmacies or primary care or prison* or school* or setting* or (social adj2 (care or service* or setting* or ward*)) or universit* or ward*)).ti,ab.
9	(clinical adj1 (assess* or evaluat*)).ti,ab.
10	(assess* adj7 (african* or arabic* or asian* or bame or bangladeshi or black or bme or caribbean or chinese or cultur* or ethnic* or ethno* or indian* or multicultur* or multi cultur* or pakistani or race or racial)).ti,ab.
11	((self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or overdose* or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*) adj3 (assess* or evaluation*)).ti,ab. or ((self harm* or selfharm* or self injur* or selfinjur* or self mutilat* or selfmutilat* or suicid* or self destruct* or selfdestruct* or self poison* or selfpoison* or (self adj2 cut*) or overdose* or self immolat* or self immolat* or selfinflict* or self inflict* or auto mutilat* or automutilat*) and assess*).ti.
12	(assessment* adj3 (index or instrument* or interview* or inventor* or item* or measure*1 or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)).ti,ab.
13	or/4-12
14	3 and 13
15	limit 14 to english language
16	limit 15 to yr="2000 -current"

Database(s): Cochrane Library - Wiley interface
Cochrane Database of Systematic Reviews, Issue 10 of 12, October 2020; Cochrane Central Register of Controlled Trials, Issue 10 of 12, October 2020
Date of last search: 7th October 2020

#	searches
1	MeSH descriptor: [poisoning] this term only
2	MeSH descriptor: [self-injurious behavior] explode all trees
3	MeSH descriptor: [self mutilation] this term only
4	MeSH descriptor: [suicide] this term only
5	MeSH descriptor: [suicidal ideation] this term only
6	MeSH descriptor: [suicide, attempted] this term only
7	MeSH descriptor: [suicide, completed] this term only
8	(automutilat* or “auto mutilat*” or cutt* or (self near/2 cut*) or selfdestruct* or “self destruct*” or selfharm* or “self harm*” or selfimmolat* or “self immolat*” or selfinflict* or “self inflict*” or selfinjur* or “self injur*” or selfmutilat* or “self mutilat*” or selfpoison* or “self poison*” or selfwound* or “self wound*” or suicid*):ti,ab.

#	searches
9	{or #1-#8}
10	MeSH descriptor: [needs assessment] this term only
11	MeSH descriptor: [outcome assessment, health care] this term only
12	MeSH descriptor: [nursing assessment] this term only
13	MeSH descriptor: [personality assessment] this term only/
14	MeSH descriptor: [process assessment, health care] this term only
15	MeSH descriptor: [risk assessment] this term only
16	((psychologic* or "mental health" or psychiatric or psychometric* or psychosocial* or "psycho social*" or therapeutic) near/2 (assess* or evaluation*)):ti,ab.
17	((biopsychosocial or "bio psychosocial") near/2 (assess* or evaluation* or index or instrument* or interview* or inventor* or item* or measure* or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)):ti,ab.
18	(assess* near/5 (clinician* or counsel?or* or doctor* or gp or lecturer* or neuropsychiatrist* or neuropsychologist* or neurospecialist* or nurs* or paramedic* or pharmacist* or police* or practitioner* or professional* or psychiatrist* or psychologist* or psychotherapist* or specialist* or staff* or teacher* or therapist* or warden* or worker*)):ti,ab.
19	(assess* near/5 (a&e or (acute near/3 (care or medicine)) or admission* or ambulance* or center* or centre* or cmhs or college* or communit* or "criminal justice" or department* or emergenc* or "general practice" or home* or hospital* or (intensive near/3 (care or medicine*)) or jail* or "justice system*" or penitentiar* or pharmacy or pharmacies or "primary care" or prison* or school* or setting* or (social near/2 (care or service* or setting* or ward*)) or universit* or ward*)):ti,ab.
20	(clinical near/1 (assess* or evaluat*)):ti,ab.
721	(assess* near/7 (african* or arabic* or asian* or bame or bangladeshi or black or bme or caribbean or chinese or cultur* or ethnic* or ethno* or indian* or multicultur* or "multi cultur*" or pakistani or race or racial)):ti,ab.
22	(("self harm*" or selfharm* or "self injur*" or selfinjur* or "self mutilat*" or selfmutilat* or suicid* or "self destruct*" or selfdestruct* or "self poison*" or selfpoison* or (self near/2 cut*) or overdose* or "self immolat*" or "self immolat*" or selfinflict* or "self inflict*" or "auto mutilat*" or automutilat*) near/3 (assess* or evaluation*)):ti,ab. or (("self harm*" or selfharm* or "self injur*" or selfinjur* or "self mutilat*" or selfmutilat* or suicid* or "self destruct*" or selfdestruct* or "self poison*" or selfpoison* or (self near/2 cut*) or overdose* or "self immolat*" or self immolat* or selfinflict* or "self inflict*" or "auto mutilat*" or automutilat*) and assess*):ti.
23	(assessment* near/3 (index or instrument* or interview* or inventor* or item* or measure* or questionnaire* or rate* or rating or scale* or score* or screen* or subscale* or survey* or test* or tool*)):ti,ab.
24	{OR #10-#23}
25	(#9 and #24) with Cochrane Library publication date Between Jan 2000 and Oct 2020

Database(s): CDSR and HTA – CRD interface

Date of last search: 7th October 2020

#	Searches
1	MeSH descriptor: poisoning IN CDSR, HTA
2	MeSH descriptor: self-injurious behavior EXPLODE ALL TREES IN CDSR, HTA
3	MeSH descriptor: self mutilation IN CDSR, HTA
4	MeSH descriptor: suicide IN CDSR, HTA
5	MeSH descriptor: suicidal ideation IN CDSR, HTA
6	MeSH descriptor: suicide, attempted IN CDSR, HTA
7	MeSH descriptor: suicide, completed IN CDSR, HTA
8	(automutilat* or "auto mutilat*" or cutt* or (self near2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*) IN CDSR, HTA
9	(#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8) from 2000 to 2020

Economic

A global, population based search was undertaken to find for economic evidence covering all parts of the guideline.

Database(s): MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily – OVID interface
Date of last search: 12th August 2021

#	Searches
1	poisoning/ or exp self-injurious behavior/ or self mutilation/ or suicide/ or suicidal ideation/ or suicide, attempted/ or suicide, completed/
2	(automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*).ti,ab.
3	or/1-2
4	Economics/
5	Value of life/
6	exp "Costs and Cost Analysis"/
7	exp Economics, Hospital/
8	exp Economics, Medical/
9	Economics, Nursing/
10	Economics, Pharmaceutical/
11	exp "Fees and Charges"/
12	exp Budgets/
13	budget*.ti,ab.
14	cost*.ti.
15	(economic* or pharmaco?economic*).ti.
16	(price* or pricing*).ti,ab.

#	Searches
17	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
18	(financ* or fee or fees).ti,ab.
19	(value adj2 (money or monetary)).ti,ab.
20	Quality-Adjusted Life Years/
21	Or/4-20
22	3 and 21
23	limit 22 to yr="2000 -current"

Database(s): Embase and Emcare – OVID interface
Date of last search: 12th August 2021

#	searches
1	automutilation/ or exp suicidal behavior/
2	(auto mutilat* or automutilat* or self cut* or selfcut* or self destruct* or selfdestruct* or self harm* or selfharm* or self immolat* or selfimmolat* or self inflict* or selfinflict* or self injur* or selfinjur* or self mutilat* or selfmutilat* or self poison* or selfpoison* or suicid*).ti,ab.
3	or/1-2
4	health economics/
5	exp economic evaluation/
6	exp health care cost/
7	exp fee/
8	budget/
9	funding/
10	budget*.ti,ab.
11	cost*.ti.
12	(economic* or pharmaco?economic*).ti.
13	(price* or pricing*).ti,ab.
14	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
15	(financ* or fee or fees).ti,ab.
16	(value adj2 (money or monetary)).ti,ab.
17	Quality-Adjusted Life Year/
18	Or/4-17
19	3 and 18
20	limit 19 to yr="2000 -current"

Database(s): Cochrane Library - Wiley interface
Cochrane Central Register of Controlled Trials, Issue 8 of 12, August 2021
Date of last search: 12th August 2021

#	Searches
1	MeSH descriptor: [poisoning] this term only
2	MeSH descriptor: [self-injurious behavior] explode all trees

#	Searches
3	MeSH descriptor: [self mutilation] this term only
4	MeSH descriptor: [suicide] this term only
5	MeSH descriptor: [suicidal ideation] this term only
6	MeSH descriptor: [suicide, attempted] this term only
7	MeSH descriptor: [suicide, completed] this term only
8	(automutilat* or "auto mutilat*" or cutt* or (self near/2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*):ti,ab.
9	{or #1-#8}
10	MeSH descriptor: [Economics] this term only
11	MeSH descriptor: [Value of life] this term only
12	MeSH descriptor: [Costs and Cost Analysis] explode all trees
13	MeSH descriptor: [Economics, Hospital] explode all trees
14	MeSH descriptor: [Economics, Medical] explode all trees
15	MeSH descriptor: [Economics, Nursing] this term only
16	MeSH descriptor: [Economics, Pharmaceutical] this term only
17	MeSH descriptor: [Fees and Charges"]
18	MeSH descriptor: [Budgets] this term only
19	budget*:ti,ab.
20	cost*.ti.
21	(economic* or pharmaco?economic*):ti.
22	(price* or pricing*):ti,ab.
23	(cost* near/2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)):ab.
24	(financ* or fee or fees):ti,ab.
25	(value near/2 (money or monetary)):ti,ab.
26	MeSH descriptor: [Quality-Adjusted Life Years] this term only
27	{OR #10-#26}
28	(#9 and #27) with Cochrane Library publication date Between Jan 2000 and Aug 2021

Database(s): NHS EED and HTA – CRD interface

Date of last search: 12th August 2021

#	Searches
1	MeSH descriptor: poisoning IN NHSEED, HTA
2	MeSH descriptor: self-injurious behavior EXPLODE ALL TREES IN NHSEED, HTA
3	MeSH descriptor: self mutilation IN NHSEED, HTA
4	MeSH descriptor: suicide IN NHSEED, HTA
5	MeSH descriptor: suicidal ideation IN NHSEED, HTA
6	MeSH descriptor: suicide, attempted IN NHSEED, HTA
7	MeSH descriptor: suicide, completed IN NHSEED, HTA
8	(automutilat* or "auto mutilat*" or cutt* or (self near2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or

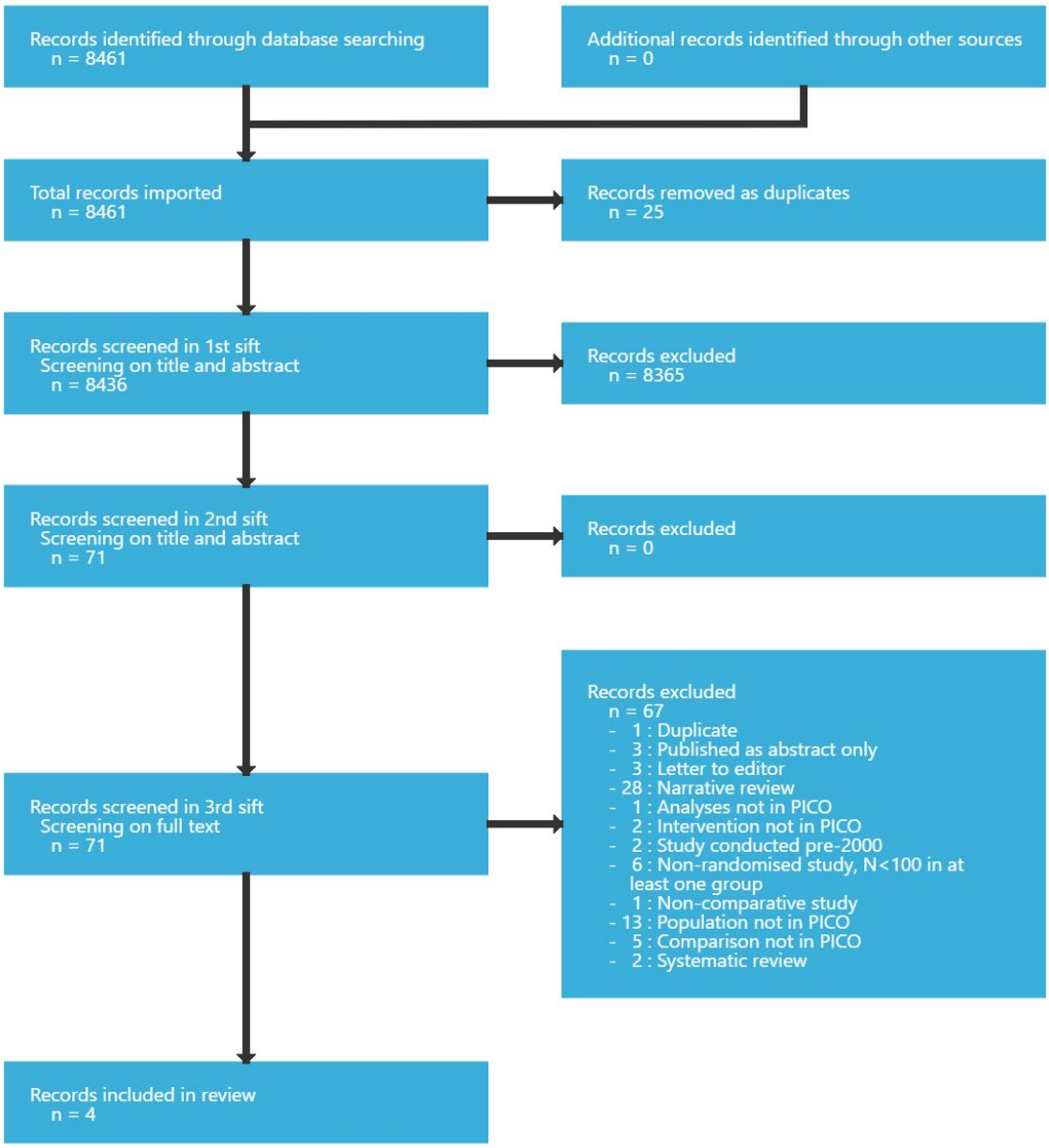
#	Searches
	"self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*) IN NHSEED, HTA
9	(#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8) from 2000 to 2021

Appendix C Clinical evidence study selection

Study selection for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

Please note that the current search was undertaken with the search for review question E (How should assessment for people who have self-harmed be undertaken in non-specialist settings?). Note the PRISMA flow chart reflects the current review question; no studies were identified for inclusion in review question E.

Figure 1: Study selection flow chart



Appendix D Evidence tables

Evidence tables for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

Table 4: Evidence tables

Johnson, 2018

Bibliographic Reference	Johnson, L. L.; O'Connor, S. S.; Kaminer, B.; Gutierrez, P. M.; Carney, E.; Groh, B.; Jobes, D. A.; Evaluation of Structured Assessment and Mediating Factors of Suicide-Focused Group Therapy for Veterans Recently Discharged from Inpatient Psychiatry; Archives of Suicide Research; 2018; 1-19

Study details

Country/ies where study was carried out	USA
Study type	Randomised controlled trial (RCT)
Study dates	Not reported
Inclusion criteria	Veterans recruited from an inpatient psychiatry unit following a recent suicide attempt or for whom suicidal ideal was a primary presenting problem
Exclusion criteria	• Prominent problems with psychotic symptoms or significant cognitive impairments
Patient characteristics	**Suicide Status Form-Assessment Group Therapy (SSF-AGT)** • n=65 • Mean age (SD) 47.72 (1.46) years • Sex (female/ male): 6/ 59 • Ethnicity: White/ Caucasian n=50; Black/ African American n=11; Asian/ Asian American n=1; Native American/ American Indian n=1; Native Hawaiian or Pacific Islander n=1; Puerto Rican or Hispanic/ Latino n=1 • Comorbidities: Not reported • Duration/ history of self-harm: Not reported • Self-harm before the current episode: Not reported • Mean number of suicide attempts (SD): 1.74 (2.3) • Method of self-harm: Not reported • Current psychiatric treatment: Not reported but note setting inpatient psychiatric unit • Assessment setting: Not reported but note setting inpatient psychiatric unit **Usual Assessment Group Therapy (UAGT)** • n=69 • Mean age (SD): 48.33 (11.17) years • Sex (female/ male): 10/ 59

	• Ethnicity: White/ Caucasian n=45; Black/ African American n=18; Asian/ Asian American n=1; Native American/ American Indian n=1; Native Hawaiian or Pacific Islander n=2; Puerto Rican or Hispanic/ Latino n=2 • Comorbidities: Not reported • Duration/ history of self-harm: Not reported • Self-harm before the current episode: Not reported • Mean number of suicide attempts (SD): 1.91 (6.4) • Method of self-harm: Not reported • Current psychiatric treatment: Not reported but note setting inpatient psychiatric unit • Assessment setting: Not reported but note setting inpatient psychiatric unit
Intervention (for all relevant groups)	**SSF-AGT:** Co-led by 2 therapists (licensed clinical psychologist and a licensed clinical social worker)*, and comprised up to 12 participants. Group co-leader introduction, written handout of the next 4 study group appointments and answered any questions, and worked with the individual to complete sections A and B of the SSF initial session form (concerned with overall risk assessment). The group began with individual completion of Section A of the SSF tracking form, which asked patients to: (1) rate their current levels of psychological pain, stress, agitation, hopelessness, self-hate, and overall risk of suicide using a 1–5 rating scale; and (2) report the presence of suicidal thoughts, ability to manage suicidal urges, and suicide behaviours since the last session. After completion of the form, each group member took a turn reporting on his or her scores and replies to the questions on the form. Group discussion then followed after completion of the SSF. Groups were held weekly and participants could attend up to 12 sessions. Upon discharge from inpatient treatment, each participant was scheduled into the next session of his/her randomly assigned treatment group **UAGT:** Co-led by 2 therapists (licensed clinical psychologist and a licensed clinical social worker)*, and comprised up to 12 participants. Group co-leader introduction, written handout of the next 4 study group appointments and answered any questions. In this group co-leaders applied informal risk assessment techniques, specifically, asking each group member at the outset of group, “How have you been doing in the past week with suicidal thoughts, plans, intent,” and so on. Group discussion would then follow from whatever was identified in the check-in. Groups were held weekly and participants could attend up to 12 sessions. Upon discharge from inpatient treatment, each participant was scheduled into the next session of his/her randomly assigned treatment group. * The same 2 therapists led both groups.
Duration of follow-up	1 and 3 months
Sources of funding	Military Suicide Research Consortium

Results	**Satisfaction with mental health care (assessed with: Client Satisfaction Questionnaire (CSQ); Scale from: 1 to 32)**
	
	• **3 months (after assessment)**
	  ○ SSF-AGT mean (SD): 29.8 (2.98)
	  ○ UAGT mean (SD): 28.96 (5.07)
	
	Overall symptom distress (assessed with: Outcome Questionnaire 45.2; Scale from: 0 to 100)
	
	• **1 month (after assessment)**

	○ SSF-AGT mean (SD): 84.31 (19.91) ○ UAGT mean (SD): 83.71 (19.60) • **3 months (after assessment)** ○ SSF-AGT mean (SD): 79.65 (20.72) ○ UAGT mean (SD): 75.12 (20.85) **Number of weekly group sessions attended during follow-up** • **1 month (after assessment)** ○ SSF-AGT mean (SD): 2.26 (1.61) ○ UAGT mean (SD): 2.39 (1.50) • **3 months (after assessment)** ○ SSF-AGT mean (SD): 5.23 (4.35) ○ UAGT mean (SD): 5.83 (4.24)

Critical appraisal

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns *(insufficient information to ascertain if randomisation process was appropriate)*
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	High *(Authors state that use of the suicide assessment form in the experimental group affected the normal running of group therapy)*
Domain 2b: Risk of bias due to deviations from the intended interventions (effect of adhering to intervention)	Risk of bias for deviations from the intended interventions (effect of adhering to intervention)	Low *(Number of therapy sessions attended per participant was recorded and was similar between groups)*
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	High *(Reasons for differentially incomplete follow-up between intervention groups not explained)*
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns *(Outcomes assessors were aware of intervention although validated questionnaires were used*
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	High *(Results were reported for each time point for outcomes meeting eligibility criteria for this review but only mean SE was*

Section	Question	Answer
		reported and analysis type, sample size and count data where relevant were not reported)
Overall bias and Directness	Risk of bias judgement	High *(High risk of bias due to missing outcome data, deviation from intended intervention and likely bias in selection of reported result)*
	Overall Directness	Partially applicable *(The population was veterans recruited from an inpatient psychiatry unit in the USA)*
	Risk of bias variation across outcomes	Issues linked to missing data were consistent for all reported outcomes

Ougrin, 2011

Bibliographic Reference	Ougrin, D.; Zundel, T.; Ng, A.; Banarsee, R.; Bottle, A.; Taylor, E.; Trial of Therapeutic Assessment in London: randomised controlled trial of Therapeutic Assessment versus standard psychosocial assessment in adolescents presenting with self-harm; Archives of Disease in Childhood; 2011; vol. 96; 148-53

Study details

Country/ies where study was carried out	Please see Ougrin 2013
Study type	Please see Ougrin 2013
Study dates	Please see Ougrin 2013
Inclusion criteria	Please see Ougrin 2013
Exclusion criteria	Please see Ougrin 2013
Patient characteristics	Please see Ougrin 2013
Intervention (for all relevant groups)	Please see Ougrin 2013
Duration of follow-up	3 months
Sources of funding	Psychiatry Research Fund; Maudsley Charitable Funds; West London Research Consortium

Results	**Attendance of treatment sessions in CAMHS, attendance at first follow-up (follow-up: 1 month after assessment)** • Therapeutic assessment: 29/35 • Assessment as usual: 17/35 **Attendance of treatment sessions in CAMHS, attended ≥4 follow-up sessions (follow-up: 3 months after assessment)** • Therapeutic assessment: 14/35 • Assessment as usual: 4/35

Critical appraisal

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Refer to Ougrin, 2013
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Refer to Ougrin, 2013
Domain 2b: Risk of bias for deviations from the intended interventions (effect of adhering to intervention)	Risk of bias for deviations from the intended interventions (effect of adhering to intervention)	Refer to Ougrin, 2013
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Some concerns (*Proportion of participants lost to follow-up similar for each group, but likely that missingness in outcomes data depended on its true value)*
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns *(Unclear if outcome assessors were blinded)*
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	Some concerns *(Some concerns of risk of bias due to possible deviations from intervention, possible bias due to participants lost to follow-up and unclear if outcome assessment was blinded)*
	Overall Directness	Directly applicable *(A UK study in adolescents who have self-harmed)*

Section	Question	Answer
	Risk of bias variation across outcomes	Not applicable

Ougrin, 2013

Bibliographic Reference	Ougrin, D.; Boege, I.; Stahl, D.; Banarsee, R.; Taylor, E.; Randomised controlled trial of therapeutic assessment versus usual assessment in adolescents with self-harm: 2-year follow-up; Archives of Disease in Childhood; 2013; vol. 98; 772-6

Study details

Country/ies where study was carried out	UK
Study type	Randomised controlled trial (RCT)
Study dates	2007 to 2009
Inclusion criteria	Adolescents aged 12–18 years not currently engaged with psychiatric services who had self-harmed and been referred for a psychosocial assessment. Self-harm was defined as self-injury or self-poisoning irrespective of the underlying intent, in line with British national guidelines
Exclusion criteria	• Gross reality distortion (for example, owing to psychotic illness or intoxication) • Known history of moderate or severe learning disability • Lack of fluent English • Immediate risk of violence or suicide • Need for in-patient psychiatric admission
Patient characteristics	**Therapeutic assessment:** • n=35 • Mean age (SD): 15.6 (SD 1.5) years • Sex (female/ male): 28/ 7 • Ethnicity: White n=17; Black n=7; Asian n=7; Mixed n=3; Other n=1 • Comorbidities: Not reported but clinical impression of emotional disorder n=22; disruptive disorder n=4; no mental illness n=9; other n=0 • Duration/history of self-harm: Not reported • Self-harm before the current episode: n=25 • Mean number of suicide attempts (SD): Not reported • Method of self-harm: Self-poisoning n=9; self-injury n=22; both n=4 • Current psychiatric treatment: Not reported but previous contact with mental health services n=25 • Assessment setting: outpatient department n=18; emergency department n=17 **Assessment as usual:** • n=35 • Age years, mean (SD): 15.5 (SD 1.2)

	• Female/Male n: 28/7 • Ethnicity n: White 20; Black 7; Asian 1; Mixed 6; Other 1 • Comorbidities: Not reported but clinical impression of emotional disorder 20; disruptive disorder 5; no mental illness 8; other 2 • Duration/history of self-harm: Not reported • Self-harm before the current episode: 16 • Number of suicide attempts, mean (SD): Not reported • Method of self-harm n: Self-poisoning 19; self-injury 15; both 1 • Current psychiatric treatment: not reported but previous contact with mental health services n: 28 • Assessment setting n: outpatient department 28; emergency department 7
Intervention (for all relevant groups)	**Therapeutic assessment:** Standard psychosocial history and risk assessment (approximately 1 hour). Review of information gathered and preparation (10 minutes), followed by a 30 min intervention including: (1) Joint construction of a diagram consisting of: reciprocal roles, core pain and maladaptive procedures; (2) identifying a target problem; (3) considering and enhancing motivation for change; and (4) exploring potential 'exits' (ways of breaking the vicious cycles identified). Describing the diagram and the exits in an 'understanding letter' in addition to the usual assessment letter. **Assessment as usual:** Standard psychosocial history and risk assessment as per NICE clinical guideline 16. The assessment letter was sent to the relevant community team and a copy was sent to the family in accordance with the Trusts' policies.
Duration of follow-up	24 months
Sources of funding	• Psychiatry Research Fund • Maudsley Charitable Funds
Results	**Number of adolescents with ≥1 A&E presentation with self-harm (follow-up: 24 months after assessment)** • Therapeutic assessment: 7/35 • Assessment as usual: 9/34 **Total recorded self-harm episodes (follow-up: 24 months after assessment)** • Therapeutic assessment: NR • Assessment as usual: NR • Therapeutic assessment vs assessment as usual: RR 4.78 (95% CI 0.76, 32.65) (controlling for number of days treated) **Attendance of treatment sessions in CAMHS (follow-up: 12 months after assessment)** • Therapeutic assessment: NR • Assessment as usual: NR • Therapeutic assessment vs assessment as usual: incidence rate ratio (IRR) 3.23 (95% CI 1.49, 7.05), z=2.97, p=0.003 (engagement in treatment was more likely in the therapeutic assessment group in Year 1)

	Attendance of treatment sessions in CAMHS (follow-up: 24 months after assessment) • Therapeutic assessment: NR • Assessment as usual: NR • Therapeutic assessment vs assessment as usual: incidence rate ratio (IRR) 1.67 (95% CI 1.22, 2.28), z=3.22, p=0.001 (engagement in treatment was more likely in the therapeutic assessment group in Year 2) * IRR as reported = how many times greater the attendance of treatment sessions in CAMHS in Year 1 or in Year 2 in the intervention vs the control group

Critical appraisal

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Some concerns *(No information on deviations from intervention due to experimental context, but ITT analysis used and method used to control for missing data)*
Domain 2b: Risk of bias for deviations from the intended interventions (effect of adhering to intervention)	Risk of bias for deviations from the intended interventions (effect of adhering to intervention)	Some concerns *(No information on deviations from intervention due to experimental context, but ITT analysis used and method used to control for missing data)*
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Some concerns *(5 participants lost to follow-up, but not reported separately by group; not clear if these participants would have attended clinic sessions or presented with repeat self-harm)*
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns *(Unclear if outcome assessors were blinded)*
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	Some concerns *(Some concerns of risk of bias due to possible deviations from intervention, possible bias due to participants lost to*

Section	Question	Answer
		follow-up and unclear if outcome assessment was blinded)
	Overall Directness	Directly applicable *(A UK study in adolescents who have self-harmed)*
	Risk of bias variation across outcomes	Not applicable

Pitman, 2020

Bibliographic Reference	Pitman, A.; Tsiachristas, A.; Casey, D.; Geulayov, G.; Brand, F.; Bale, E.; Hawton, K.; Comparing short-term risk of repeat self-harm after psychosocial assessment of patients who self-harm by psychiatrists or psychiatric nurses in a general hospital: Cohort study; Journal of affective disorders; 2020; vol. 272; 158-165

Study details

Country/ies where study was carried out	UK
Study type	Prospective cohort study
Study dates	2000 to 2015
Inclusion criteria	Data for presentations to the John Radcliffe Hospital in Oxford following an episode of self-harm over the period 2000 to 2014, with follow-up data until 2015, from the Oxford Monitoring System for Self-harm dataset
Exclusion criteria	• Patients who died in the ED or during an admission associated with the index presentation • Patients assessed by the Oxford University Hospitals (OUH) liaison team established in 2013 (patients admitted to a ward (for example after major trauma) and are all assessed by a senior psychiatrist)
Patient characteristics	**Assessment by a psychiatrist:** • n=4159 • Mean age (SD): 33.3 (15.5) years • Sex (female/ male): 2399/ 1760 • Ethnicity: White n=3121; non-White n=332; missing n=706 • Comorbidities: Not reported • Duration/ history of self-harm: Not reported • Self-harm before the current episode: n=2020 (presenting and not presenting) • Mean number of suicide attempts (SD): Not reported • Method of self-harm: self-poisoning only n=3196; self-cutting n=417; other self-injury n=231; mixed methods of self-harm n=315; missing n=0 • Current psychiatric treatment: Not reported • Assessment setting: Not reported. Note that study assessed hospital presentation

	Assessment by a psychiatric nurse: • n=5485 • Mean age (SD): 30.3 (15.1) years • Sex (female/ male): 3487/ 1998 • Ethnicity: White n=4203; non-White n=379; missing n=903 • Comorbidities: Not reported • Duration/ history of self-harm: Not reported • Self-harm before the current episode: n=2693 (presenting and not presenting) • Mean number of suicide attempts (SD): Not reported • Method of self-harm: self-poisoning only n=4691; self-cutting n=288; other self-injury n=126; mixed methods of self-harm n=380; missing n=0 • Current psychiatric treatment: Not reported • Assessment setting: Not reported. Note that study assessed hospital presentation
Intervention (for all relevant groups)	Psychosocial assessment - assessed by psychiatric nurse (During the assessment data on method of self-harm, time of presentation, any previous self-harm, psychiatric diagnosis, and any aftercare arrangements appeared to be collected but no further detail in respect of the assessment reported.) Psychosocial assessment - assessed by psychiatrist (During the assessment, data on method of self-harm, time of presentation, any previous self-harm, psychiatric diagnosis, and any aftercare arrangements appeared to be collected but no further detail in respect of the assessment reported.)
Duration of follow-up	12 months
Sources of funding	• Author supported by a Royal College of Psychiatrists Faculty of General Adult Psychiatry Small Project Funding grant. • Oxford Monitoring System for Self-harm is supported through funding for the Multicentre Study of Self-harm in England from the Department of Health and Social Care (DHSC), including the Policy Research Programme
Results	**Repeat self-harm presentation within 12 months after assessment** • n=7692 index and all subsequent presentations assessed by psychiatrist • n=9318 index and all subsequent presentations assessed by psychiatric nurse Assessed by a psychiatrist vs assessed by a psychiatric nurse: • OR 1.06 (95% CI 0.99, 1.13) (unadjusted) • OR 1.05 (95% CI 0.98, 1.13) (adjusted)* • OR 1.06 (95% CI 0.99, 1.14) (adjusted)** * Adjusted odds ratio: multivariable model adjusted a priori for age at presentation, method of self-harm, hour of presentation, and year of presentation. ** Adjusted odds ratio: multivariable model adjusted a priori for age at presentation, method of self-harm, hour of presentation, and year of presentation plus aftercare.

	Aftercare was defined as psychiatric admission, NHS psychiatric community care (day hospital, crisis team, outpatient), non-NHS community-based services, and discharge to general practitioner care alone.)

Critical appraisal

Section	Question	Answer
1. Bias due to confounding	Risk of bias judgement for confounding	Serious *(A priori confounders only reported post assessment. No information reported on controlling for confounders at baseline)*
2. Bias in selection of participants into the study	Risk of bias judgement for selection of participants into the study	Moderate *(Likely that all eligible participants were included, but unclear if start of follow up and start of intervention coincided for all participants)*
3. Bias in classification of interventions	Risk of bias judgement for classification of interventions	Low
4. Bias due to deviations from intended interventions	Risk of bias judgement for deviations from intended interventions	Low
5. Bias due to missing data	Risk of bias judgement for missing data	Low
6. Bias in measurement of outcomes	Risk of bias judgement for measurement of outcomes	Low
7. Bias in selection of the reported result	Risk of bias judgement for selection of the reported result	Low
Overall bias	Risk of bias judgement	Serious *(Serious risk of bias due to lack of measurement of baseline confounders)*
	Risk of bias variation across outcomes	None
	Directness	Directly applicable *(A UK study in a population who have self-harmed)*

Appendix E Forest plots

Forest plots for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

There are no forest plots for this review as no meta-analyses were conducted.

Appendix F Modified GRADE tables

Modified GRADE tables for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

Table 5: Evidence profile for comparison between therapeutic assessment and assessment as usual

Quality assessment						Number of patients		Effect			
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Other considerations	Therapeutic assessment	Assessment as usual	Relative (95% CI)	Absolute	Quality	Importance
Number of adolescents with ≥1 A&E presentation with self-harm (follow-up: 24 months)											
1 (Ougrin 2013)	RCT	serious[1]	no serious inconsistency	no serious indirectness	none	7/35	9/34	RR 0.76 (0.32, 1.80)	64 fewer per 1,000 (from 180 fewer to 212 more)	MODERATE	CRITICAL
Total recorded self-harm episodes (follow-up: 24 months)											
1 (Ougrin 2013)	RCT	very serious[2]	no serious inconsistency	no serious indirectness	none	Not reported	Not reported	RR 4.78 (0.76, 32.65)[3]	Not estimable	LOW	CRITICAL
Attendance of treatment sessions in CAMHS, attendance at first follow-up (follow-up: 1 month)											
1 (Ougrin 2011)	RCT	serious[1]	no serious inconsistency	no serious indirectness	none	29/35	17/35	RR 1.71 (1.18, 2.48)	345 more per 1,000 (from 87 more to 719 more)	MODERATE	IMPORTANT
Attendance of treatment sessions in CAMHS, attended ≥4 follow-up sessions (follow-up: 3 months)											
1 (Ougrin 2011)	RCT	serious[1]	no serious inconsistency	no serious indirectness	none	14/35	4/35	RR 3.50 (1.28, 9.59)	286 more per 1,000	MODERATE	IMPORTANT

Quality assessment						Number of patients		Effect			
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Other considerations	Therapeutic assessment	Assessment as usual	Relative (95% CI)	Absolute	Quality	Importance
									(from 32 more to 982 more)		
Attendance of treatment sessions in CAMHS (follow-up: 12 months)											
1 (Ougrin 2011)	RCT	very serious[2]	no serious inconsistency	no serious indirectness	none	Not reported	Not reported	IRR 3.23 (1.49, 7.05)[4] (favouring Therapeutic assessment)	Not estimable	LOW	IMPORTANT
Attendance of treatment sessions in CAMHS (follow-up: 24 months)											
1 (Ougrin 2011)	RCT	very serious[2]	no serious inconsistency	no serious indirectness	none	Not reported	Not reported	IRR 1.67 (1.22, 2.28)[4] (favouring Therapeutic assessment)	Not estimable	LOW	IMPORTANT

CAMHS, community and mental health services; CI, confidence interval; IRR, incidence rate ratio; RR, relative risk
1 Serious risk of bias in the evidence contributing to the outcomes
2 Very serious risk of bias in the evidence contributing to the outcomes
3 Number of self-harm episodes per study group not reported, RR and 95% CI as reported in the study
4 Attendance at follow-up visit per study group not reported, IRR and 95% CI as reported in the study (how many times greater the attendance of treatment sessions in CAMHS in Year 1 or in Year 2 in the intervention vs the control group)

Table 6: Evidence profile for comparison between suicide Status Form Assessment Group Therapy and Usual Assessment Group Therapy

Quality assessment						Number of patients		Effect			
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Other considerations	SSF-AGT	UAGT	Relative (95% CI)	Absolute	Quality	Importance
Satisfaction with mental health care (follow up: 3 months; assessed with: Client Satisfaction Questionnaire (CSQ); Scale from: 1 to 32)											
1 (Johnson 2018)	RCT	very serious[1]	no serious inconsistency	serious[2]	none	65	69	-	MD 0.84 higher (0.56 lower to 2.24 higher)	VERY LOW	CRITICAL
Overall symptom distress (follow up: 1 months; assessed with: Outcome Questionnaire 45.2; Scale from: 0 to 100)											
1 (Johnson 2018)	RCT	very serious[1]	no serious inconsistency	serious[2]	none	65	69	-	MD 0.6 higher (6.09 lower to 7.29 higher)	VERY LOW	IMPORTANT
Overall symptom distress (follow up: 3 months; assessed with: Outcome Questionnaire 45.2; Scale from: 0 to 100)											
1 (Johnson 2018)	RCT	very serious[1]	no serious inconsistency	serious[2]	none	65	69	-	MD 4.53 higher (2.51 lower to 11.57 higher)	VERY LOW	IMPORTANT
Number of weekly group sessions attended during follow-up – 1 month follow-up											
1 (Johnson 2018)	RCT	very serious[1]	no serious inconsistency	serious[2]	none	65	69	-	MD 0.13 lower (0.66 lower to 0.4 higher)	VERY LOW	IMPORTANT
Number of weekly group sessions attended during follow-up – 3 months follow-up											
1 (Johnson 2018)	RCT	very serious[1]	no serious inconsistency	serious[2]	none	65	69	-	MD 0.6 lower (2.06 lower to 0.86 higher)	VERY LOW	IMPORTANT

CI = confidence interval; MD = mean difference; SD = standard deviation; SE = standard error; SSF-AGT = suicide status form assessment group therapy; UAGT = usual assessment group therapy

1 Very serious risk of bias in the evidence contributing to the outcomes

2 Population was very indirect due to the study being conducted in veterans recently discharged from an inpatient psychiatry setting and the study was conducted in a non-UK setting

Table 7: Evidence profile for comparison between assessment by psychiatrist and assessment by psychiatric nurse

Quality assessment						Number of patients		Effect		Quality	Importance
Number of studies	Design	Risk of bias	Inconsistency	Indirectness	Other considerations	Assessment by Psychiatrist	Assessment by Psychiatric Nurse	Relative (95% CI)	Absolute		
Repeat self-harm presentation within 12 months											
1 (Pitman 2020)	Observational study	very serious[1]	no serious inconsistency	no serious indirectness	none	7692 episodes in 5485 patients[2]	9318 episodes in 4159 patients[2]	OR 1.06 (0.99, 1.13)[3]	14 more per 1000 (from 2 fewer to 30 more)	LOW	CRITICAL
1 (Pitman 2020)	Observational study	very serious[1]	no serious inconsistency	no serious indirectness	none	7692 episodes in 5485 patients[2]	9318 episodes in 4159 patients[2]	OR 1.05 (0.98, 1.13)[4]	12 more per 1000 (from 5 fewer to 30 more)	LOW	CRITICAL
1 (Pitman 2020)	Observational study	very serious[1]	no serious inconsistency	no serious indirectness	none	7692 episodes in 5485 patients[2]	9318 episodes in 4159 patients[2]	OR 1.06 (0.99, 1.14)[5]	14 more per 1000 (from 2 fewer to 32 more)	LOW	CRITICAL

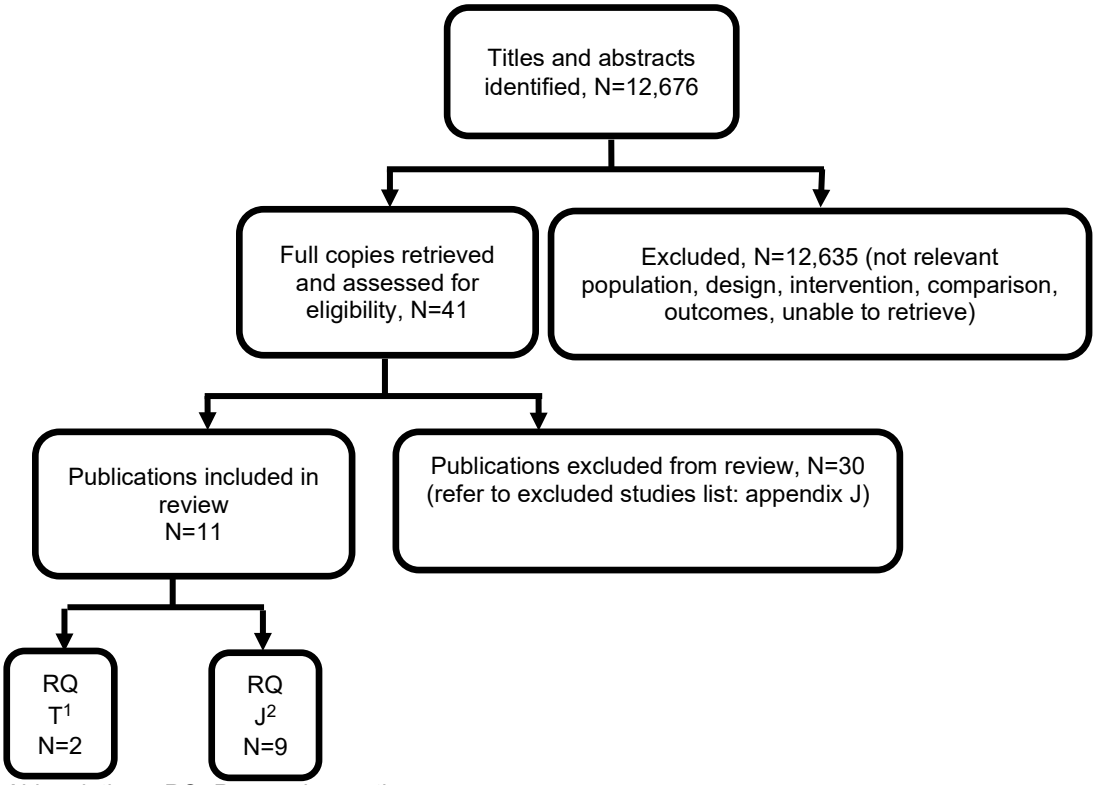
CI = confidence interval; OR = odds ratio
1 Serious risk of bias in the evidence contributing to the outcomes
2 Number of individuals with repeat self-harm episodes per arm were not reported, but the number of index and subsequent episodes assessed by a psychiatrist or psychiatric nurse was reported and are listed here. These data were used by the authors to calculate the reported ORs. The total N for each arm has been used. The RR has been calculated based on the number of episodes reported per study group (assessed by psychiatrist 7692/17010 (45%) episodes and Total patients assessed by doctor or nurse N = 9644. Total episodes assessed N=17,010. Episodes assessed by psychiatrist n=7692 in and episodes assessed by psychiatric nurse, n=9318. Note patients with repeat episodes not reported.
3 OR (95% CI) as reported in the publication. Unadjusted odds ratio
4 OR (95% CI) as reported in the publication. Adjusted odds ratio: multivariable model adjusted a priori for age at presentation, method of self-harm, hour of presentation, and year of presentation
*5 OR (95% CI) as reported in the publication. Adjusted odds ratio: multivariable model adjusted a priori for age at presentation, method of self-harm, hour of presentation, and year of presentation **plus** aftercare. Aftercare was defined as psychiatric admission, NHS psychiatric community care (day hospital, crisis team, outpatient), non-NHS community-based services, and discharge to general practitioner care alone.*

Appendix G Economic evidence study selection

Study selection for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

A global health economics search was undertaken for all areas covered in the guideline. Figure 2 shows the flow diagram of the selection process for economic evaluations of interventions and strategies associated with the care of people who have self-harmed.

Figure 2: Flow diagram of economic article selection for global health economic search



Abbreviations: RQ: Research question
Notes:
1 What are the most effective models of care for people who have self-harmed?
2 What psychological and psychosocial interventions (including safety plans and electronic health-based interventions) are effective for people who have self-harmed?

Appendix H Economic evidence tables

Economic evidence tables for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

No evidence was identified which was applicable to this review question.

Appendix I Economic model

Economic model for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

No economic analysis was conducted for this review question.

Appendix J Excluded studies

Excluded studies for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

Excluded effectiveness studies

Table 8: Excluded studies and reasons for their exclusion

Study	Code [Reason]
(2016) Assessing Suicide Risk in the Emergency Department. Journal of Psychosocial Nursing & Mental Health Services 54: 18-18	- Narrative review
(2016) New Tablet-Based Suicide Risk Assessment Tool Replicates Psychiatrists' Expertise. Journal of Psychosocial Nursing & Mental Health Services 54: 58-58	- Narrative review
Abarca, C., Gheza, C., Coda, C. et al. (2018) Literature review to identify standardized scales for assessing adult suicide risk in the primary health care setting. Medwave 18: e7246	- Systematic review *Included studies checked for relevance.*
Adrian, Molly (2018) 1.3 The Collaborative Assessment and Management of Suicidality: Application and Adaptations With Youth. Journal of the American Academy of Child & Adolescent Psychiatry 57: S2-S2	- Published as abstract only
Ali, A. and Hassiotis, A. (2006) Deliberate self-harm and assessing suicidal risk. British Journal of Hospital Medicine 67: M212-M213	- Narrative review
Anonymous (2011) Suicide assessment team in the ED. Hospital Peer Review 36: 30-1	- Narrative review
Antai-Otong, D. (2016) What Every ED Nurse Should Know About Suicide Risk Assessment. Journal of Emergency Nursing 42: 31-6	- Narrative review
Arias, S. A., Zhang, Z., Hillerns, C. et al. (2014) Using structured telephone follow-up assessments to improve suicide-related adverse event detection. Suicide & Life-Threatening Behavior 44: 537-47	- Comparison not in PICO *Comparison of different methods of detection of adverse events during treatment as usual*
Betz, M. E., Kautzman, M., Segal, D. L. et al. (2018) Frequency of lethal means assessment among emergency department patients with a positive suicide risk screen. Psychiatry Research 260: 30-35	- Comparison not in PICO *Compares patients with / without assessment*
Bland, Phillip (2018) Assessing suicide and self-harm risk in adolescents. Practitioner 262: 10-10	- Analyses not in PICO *No mention of assessment*
Carter, T., Walker, G. M., Aubeeluck, A. et al. (2019) Assessment tools of immediate risk of self-harm and suicide in children and young people: A scoping review. Journal of Child Health Care 23: 178-199	- Comparison not in PICO *Scoping review of assessment tools for use in self-harm, but not of studies comparing assessment methods*

Study	Code [Reason]
Chu, C., Van Orden, K. A., Ribeiro, J. D. et al. (2017) Does the timing of suicide risk assessments influence ratings of risk severity?. Professional psychology: research & practice 48: 107-114	- Population not in PICO *Mixed population [33.1% had a history of suicide attempt(s), 16.6% had a history of self-harm]; results not presented separately for target population*
Clibbens, N. (2019) Primary care suicide screening: the importance of comprehensive clinical assessment. Evidence based nursing. 05	- Narrative review
Cochrane-Brink, K. A.; Lofchy, J. S.; Sakinofsky, I. (2000) Clinical rating scales in suicide risk assessment. General Hospital Psychiatry 22: 445-51	- Study conducted pre-2000
Costanza, A., Amerio, A., Radomska, M. et al. (2020) Suicidality Assessment of the Elderly With Physical Illness in the Emergency Department. Frontiers in Psychiatry 11 (no pagination)	- Narrative review
Crowder, R., Van der Putt, R., Ashby, C. A. et al. (2004) Deliberate self-harm patients who discharge themselves from the general hospital without adequate psychosocial assessment. Crisis: Journal of Crisis Intervention & Suicide 25: 183-6	- Intervention not in PICO *Study does not compare two models of assessment*
Cwik, M. F.; O'Keefe, V. M.; Haroz, E. E. (2020) Suicide in the pediatric population: screening, risk assessment and treatment. International Review of Psychiatry 32: 254-264	- Narrative review
Davoren, M., Byrne, O., O'Connell, P. et al. (2015) Factors affecting length of stay in forensic hospital setting: need for therapeutic security and course of admission. BMC Psychiatry 15: 301	- Population not in PICO *Population did not include people who have self-harmed*
de Chenu, Linda (2011) Working with Suicidal Individuals: A Guide to Providing Understanding Assessment and Support. British Journal of Social Work 41: 1615-1616	- Narrative review
DeVylder, J. E., Ryan, T. C., Cwik, M. et al. (2019) Assessment of Selective and Universal Screening for Suicide Risk in a Pediatric Emergency Department. JAMA Network Open 2: e1914070	- Population not in PICO *Population not people who have self-harmed. People with behavioural or psychiatric or medical presenting problems without self-harm assessed for future risk*
Ellis, Thomas E. (2011) Preventing patient suicide: clinical assessment and management. Journal of Psychiatric Practice 17: 447-448	- Narrative review
Ellis, Thomas E., Rufino, Katrina A., Allen, Jon G. et al. (2015) Impact of a suicide-specific intervention within inpatient psychiatric care: The Collaborative Assessment and Management of Suicidality. Suicide and Life-Threatening Behavior 45: 556-566	- Population not in PICO *Population did not include people who have self-harmed*
Franks, M., Cramer, R. J., Cunningham, C. A. et al. (2020) Psychometric assessment of two suicide screeners when used under	- Population not in PICO

Study	Code [Reason]
routine conditions in military outpatient treatment programs. Psychological services. 02	*Active-duty military personnel in mental health or substance abuse treatment at a military hospital. Unclear how many had self-harmed*
Frierson, R. L. (2007) The suicidal patient: risk assessment, management, and documentation. Psychiatric Times 24: 29-32	- Narrative review
Gerson, Ruth and Feuer, Vera (2018) Innovations in Emergency Assessment and Management of Suicide Risk. Journal of the American Academy of Child & Adolescent Psychiatry 57: S32-S32	- Published as abstract only
Greydanus, Donald E. and Pratt, Helen D. (2015) Predicting, Assessing, and Treating Self-Harm in Adolescents. Psychiatric Times 32: 1-5	- Narrative review
Harris, K. M. and Goh, M. T. T. (2016) Is suicide assessment harmful to participants? Findings from a randomized controlled trial. International Journal of Mental Health Nursing	- Population not in PICO *Population not people who have self-harmed (Singapore residents ≥18 years of age, adequate English language skills, and not currently in psychiatric treatment)*
Hawton, K. (2003) Psychiatric assessment and management of deliberate self-poisoning patients. Medicine (13573039) 31: 16-7]	- Narrative review
Huth-Bocks, A. C., Kerr, D. C. R., Ivey, A. Z. et al. (2007) Assessment of psychiatrically hospitalized suicidal adolescents: self-report instruments as predictors of suicidal thoughts and behavior. Journal of the American Academy of Child & Adolescent Psychiatry 46: 387-395	- Population not in PICO *54% had previous suicide attempt, but unclear about other self-harm. Results not reported separately for target population*
Johnson, L. L., O'Connor, S. S., Kaminer, B. et al. (2019) Evaluation of Structured Assessment and Mediating Factors of Suicide-Focused Group Therapy for Veterans Recently Discharged from Inpatient Psychiatry. Archives of Suicide Research 23: 15-33	- Duplicate
Joiner, T. E. and Ribeiro, J. D. (2011) Assessment and management of suicidal behavior in children and adolescents. Pediatric Annals 40: 319-324	- Narrative review
Kapusta, Nestor D. (2012) Non-suicidal Self-injury and Suicide Risk Assessment, quo vadis DSM-V?. Suicidology Online 3: 1-3	- Narrative review
Kishi, Y. and Kathol, R. G. (2002) Assessment of patients who attempt suicide. Primary Care Companion to the Journal of Clinical Psychiatry 4: 132-136	- Narrative review
Kollmann, B., Darwiesh, T., Tuscher, O. et al. (2020) The Importance of Assessing Mental Health Issues and Preventing Suicidality in Studies on Healthy Participants. American Journal of Bioethics 20: 75-77	- Population not in PICO *Healthy participants*

Study	Code [Reason]
Large, M. M. (2010) No evidence for improvement in the accuracy of suicide risk assessment. Journal of Nervous and Mental Disease 198: 604	- Letter to editor
Large, M. and Ryan, C. (2014) Suicide risk assessment: Myth and reality. International Journal of Clinical Practice 68: 679-681	- Narrative review
Large, Matthew Michael (2016) What Every ED Nurse Should Know About Suicide Risk Assessment. JEN: Journal of Emergency Nursing 42: 199-200	- Letter to editor
Lindh, A. U., Beckman, K., Carlborg, A. et al. (2020) Predicting suicide: A comparison between clinical suicide risk assessment and the Suicide Intent Scale. Journal of Affective Disorders 263: 445-449	- Comparison not in PICO *All participants received both assessment tools. (Analysis was on suicide within 12 months of index assessment and included only participants that had both a clinical risk assessment and suicide intent scale risk score. The focus of the analysis was the accuracy of each in the prediction of suicide risk)*
Maheshwari, R. and Joshi, P. (2012) Assessment, referral, and treatment of suicidal adolescents. Pediatric Annals 41: 516-521	- Narrative review
Marfe, E. (2003) Assessing risk following deliberate self-harm. Paediatric Nursing 15: 32-4	- Non-comparative study
Martin, G. and Brown, S. (2020) Psychiatric assessment of self-poisoning. Medicine (United Kingdom) 48: 173-175	- Narrative review
McAllister, M. (2011) Assessment following self-harm: Nurses provide comparable risk assessment to psychiatrists but are less likely to admit for in-hospital treatment. Evidence-Based Nursing 14: 83-84	- Narrative review
Molero, P., Grunebaum, M. F., Galfalvy, H. C. et al. (2014) Past suicide attempts in depressed inpatients: clinical versus research assessment. Archives of Suicide Research 18: 50-7	- Population not in PICO *Mixed population [18-24/50 participants reported prior suicide attempt; no information about self-harm]; results not presented separately for target population*
Mott, J. (2011) Suicide assessment in the school setting. NASN school nurse 26: 102-8	- Narrative review
Murphy, Andrea L., Gardner, David M., Chen, Timothy F. et al. (2015) Community pharmacists and the assessment and management of suicide risk. Canadian Pharmacists Journal 148: 171-175	- Narrative review

Study	Code [Reason]
Oquendo, M. A. and Bernanke, J. A. (2017) Suicide risk assessment: tools and challenges. World Psychiatry 16: 28-29	- Narrative review
Ospina-Pinillos, L., Davenport, T., Iorfino, F. et al. (2018) Using New and Innovative Technologies to Assess Clinical Stage in Early Intervention Youth Mental Health Services: Evaluation Study. Journal of Medical Internet Research 20: e259	- Population not in PICO *Mixed population [35/72 participants reported self-harm]; results not presented separately for target population*
Ougrin, D.; Ng, A. V.; Low, J. (2008) Therapeutic assessment based on cognitive - Analytic therapy for young people presenting with self-harm: Pilot study. Psychiatric Bulletin 32: 423-426	- Non-randomised study, N<100 in at least one group
Phillips, J. (2004) Risk assessment and management of suicide and self-harm: within a forensic learning disability setting. Learning Disability Practice 7: 12-18	- Narrative review
Pistorello, J., Jobes, D. A., Gallop, R. et al. (2020) A Randomized Controlled Trial of the Collaborative Assessment and Management of Suicidality (CAMS) Versus Treatment as Usual (TAU) for Suicidal College Students. Archives of Suicide Research	- Intervention not in PICO *'Collaborative Assessment and Management of Suicidality' versus 'treatment as usual'*
Randall, J. R.; Colman, I.; Rowe, B. H. (2011) A systematic review of psychometric assessment of self-harm risk in the emergency department. Journal of Affective Disorders 134: 348-55	- Systematic review *Included studies checked for relevance*
Randall, J. R., Sareen, J., Chateau, D. et al. (2019) Predicting Future Suicide: Clinician Opinion versus a Standardized Assessment Tool. Suicide & Life-Threatening Behavior 49: 941-951	- Population not in PICO *Consecutive adult referrals to psychiatric services with no exclusion criteria. Unclear how many had self-harmed*
Rao, S., Broadbear, J. H., Thompson, K. et al. (2017) Evaluation of a novel risk assessment method for self-harm associated with Borderline Personality Disorder. Australasian Psychiatry 25: 460-465	- Population not in PICO *Population was not people who had self-harmed. Physician assessment of case vignettes describing a fictional patient*
Reid, J. M., Storch, E. A., Murphy, T. K. et al. (2010) Development and psychometric evaluation of the treatment-emergent activation and suicidality assessment profile. Child & Youth Care Forum 39: 113-124	- Population not in PICO *Children who exhibited one of the following psychiatric disorders: OCD; major depression; generalized anxiety disorder; social phobia; or separation anxiety disorder. Unclear how many had self-harmed*
Reshetukha, T. R., Alavi, N., Prost, E. et al. (2018) Improving suicide risk assessment in the emergency department through physician education and a suicide risk assessment prompt. General Hospital Psychiatry 52: 34-40	- Comparison not in PICO *No comparison of assessment methods*

Study	Code [Reason]
Ronquillo, L., Minassian, A., Vilke, G. M. et al. (2012) Literature-based recommendations for suicide assessment in the emergency department: a review. Journal of Emergency Medicine 43: 836-42	- Narrative review *Case reports and narrative literature review. Does not compare assessment methods or models*
Rudd, Kimberly Butterfly, Breen, Robert, Srinivasan, Shilpa et al. (2019) SUICIDE IN LATE-LIFE: COLLABORATIVE APPROACHES FOR ASSESSMENT, PREVENTION, AND TREATMENT: Session 202. American Journal of Geriatric Psychiatry 27: S13-S14	- Published as abstract only
Russell, J. and Mitchell, J. R. (2000) The assessment of a "nurse led" deliberate selfharm service. Health Bulletin 58: 221-3	- Non-comparative study
Simon, Robert I. (2011) Improving Suicide Risk Assessment. Psychiatric Times 28: 16-21	- Narrative review
Smith, E. M. (2018) Suicide risk assessment and prevention. Nursing Management 49: 22-30	- Narrative review
Stewart, S. Evelyn; Manion, I. G.; Davidson, S. (2002) Emergency management of the adolescent suicide attempter: A review of the literature. Journal of Adolescent Health 30: 312-325	- Study conducted pre-2000
Targum, S. D.; Friedman, F.; Pacheco, M. N. (2014) Assessment of suicidal behavior in the emergency department. Innovations in Clinical Neuroscience 11: 194-200	- Narrative review
Valente, S. M. (2010) Assessing patients for suicide risk. Nursing 40: 36-40; quiz 40	- Narrative review
Waern, M.; Dombrovski, A. Y.; Szanto, K. (2011) Is the proposed DSM-V Suicide Assessment Dimension suitable for seniors?. International Psychogeriatrics 23: 671-672	- Letter to editor
Ward-Ciesielski, E. F. and Wilks, C. R. (2020) Conducting Research with Individuals at Risk for Suicide: Protocol for Assessment and Risk Management. Suicide & life-threatening behavior 50: 461-471	- Population not in PICO *Suicidal adults using or not using alcohol to regulate emotions. Do not appear to have self-harmed*
Weston, S. N. (2003) Comparison of the assessment by doctors and nurses of deliberate self-harm. Psychiatric Bulletin 27: 57-60	- Outcomes not in PICO *Outcomes are clinician referral decisions*
Witt, K., Spittal, M. J., Carter, G. et al. (2017) Effectiveness of online and mobile telephone applications ('apps') for the self-management of suicidal ideation and self-harm: a systematic review and meta-analysis. BMC Psychiatry 17: 297	- Intervention not in PICO *Interventions for self-harm were not related to assessment but management of self-harm*

Excluded economic studies

Table 9: Excluded studies from the guideline economic review

Study	Reason for Exclusion
Adrian, M., Lyon, A. R., Nicodimos, S., Pullmann, M. D., McCauley, E., Enhanced "Train and Hope" for Scalable, Cost-Effective Professional Development in Youth Suicide Prevention, Crisis, 39, 235-246, 2018	Not relevant to any of the review questions in the guideline - this study examined the impact of an educational training ongoing intervention, and the effect of the post-training reminder system, on mental health practitioners' knowledge, attitudes, and behaviour surrounding suicide assessment and intervention. As well, this study was not a full health economic evaluation
Borschmann R, Barrett B, Hellier JM, et al. Joint crisis plans for people with borderline personality disorder: feasibility and outcomes in a randomised controlled trial. Br J Psychiatry. 2013;202(5):357-364.	Not relevant to any of the review questions in the guideline - this study examined the feasibility of recruiting and retaining adults with borderline personality disorder to a pilot randomised controlled trial investigating the potential efficacy and cost-effectiveness of using a joint crisis plan
Bustamante Madsen, L., Eddleston, M., Schultz Hansen, K., Konradsen, F., Quality Assessment of Economic Evaluations of Suicide and Self-Harm Interventions, Crisis, 39, 82-95, 2018	Study design - this review of health economics studies has been excluded for this guideline, but its references have been hand-searched for any relevant health economic study
Byford, S., Barrett, B., Aglan, A., Harrington, V., Burroughs, H., Kerfoot, M., Harrington, R. C., Lifetime and current costs of supporting young adults who deliberately poisoned themselves in childhood and adolescence, Journal of Mental Health, 18, 297-306, 2009	Study design – no comparative cost analysis
Byford, S., Leese, M., Knapp, M., Seivewright, H., Cameron, S., Jones, V., Davidson, K., Tyrer, P., Comparison of alternative methods of collection of service use data for the economic evaluation health care interventions, Health Economics, 16, 531-536, 2007	Study design – no comparative cost analysis
Byford, Sarah, Barber, Julie A., Harrington, Richard, Barber, Baruch Beautrais Blough Brent Brodie Byford Carlson Chernoff Collett Fergusson Garland Goldberg Harman Harrington Hawton Huber Kazdin Kerfoot Knapp Lindsey McCullagh Miller Netten Reynolds Sadowski Shaffer Simms Wu, Factors that influence the cost of deliberate self-poisoning in children and adolescents, Journal of Mental Health Policy and Economics, 4, 113-121, 2001	Study design – no comparative cost analysis
Denchev, P., Pearson, J. L., Allen, M. H., Claassen, C. A., Currier, G. W., Zatzick, D. F., Schoenbaum, M., Modeling the cost-effectiveness of interventions to reduce suicide risk among hospital emergency department patients, Psychiatric Services, 69, 23-31, 2018	Not relevant to any of the review questions in the guideline - this study estimated the cost-effectiveness of outpatient interventions (Postcards, Telephone outreach, Cognitive Behaviour Therapy) to reduce suicide risk among patients presenting to general hospital emergency departments
Dunlap, L. J., Orme, S., Zarkin, G. A., Arias, S. A., Miller, I. W., Camargo, C. A., Sullivan, A. F., Allen, M. H., Goldstein, A. B., Manton, A. P., Clark, R., Boudreaux, E. D., Screening and Intervention for Suicide Prevention: A Cost-	Not relevant to any of the review questions in the guideline - this study estimated the cost-effectiveness of suicide screening followed by an intervention to identify suicidal individuals and prevent recurring self-harm

Study	Reason for Exclusion
Effectiveness Analysis of the ED-SAFE Interventions, Psychiatric services (Washington, D.C.), appips201800445, 2019	
Fernando, S. M., Reardon, P. M., Ball, I. M., van Katwyk, S., Thavorn, K., Tanuseputro, P., Rosenberg, E., Kyeremanteng, K., Outcomes and Costs of Patients Admitted to the Intensive Care Unit Due to Accidental or Intentional Poisoning, Journal of Intensive Care Medicine, 35, 386-393, 2020	Study design – no comparative cost analysis
Flood, C., Bowers, L., Parkin, D., Estimating the costs of conflict and containment on adult acute inpatient psychiatric wards, Nursing economic$, 26, 325-330, 324, 2008	Study design – no comparative cost analysis
Fortune, Z., Barrett, B., Armstrong, D., Coid, J., Crawford, M., Mudd, D., Rose, D., Slade, M., Spence, R., Tyrer, P., Moran, P., Clinical and economic outcomes from the UK pilot psychiatric services for personality-disordered offenders, International Review of Psychiatry, 23, 61-9, 2011	Not relevant to any of the review questions in the guideline
George, S., Javed, M., Hemington-Gorse, S., Wilson-Jones, N., Epidemiology and financial implications of self-inflicted burns, Burns, 42, 196-201, 2016	Study design – no comparative cost analysis
Gunnell, D., Shepherd, M., Evans, M., Are recent increases in deliberate self-harm associated with changes in socio-economic conditions? An ecological analysis of patterns of deliberate self-harm in Bristol 1972-3 and 1995-6, Psychological medicine, 30, 1197-1203, 2000	Study design - cost-of-illness study
Kapur, N., House, A., Dodgson, K., Chris, M., Marshall, S., Tomenson, B., Creed, F., Management and costs of deliberate self-poisoning in the general hospital: A multi-centre study, Journal of Mental Health, 11, 223-230, 2002	Study design – no comparative cost analysis
Kapur, N., House, A., May, C., Creed, F., Service provision and outcome for deliberate self-poisoning in adults - Results from a six centre descriptive study, Social Psychiatry and Psychiatric Epidemiology, 38, 390-395, 2003	Study design – no comparative cost analysis
Kinchin, I., Russell, A. M. T., Byrnes, J., McCalman, J., Doran, C. M., Hunter, E., The cost of hospitalisation for youth self-harm: differences across age groups, sex, Indigenous and non-Indigenous populations, Social Psychiatry and Psychiatric Epidemiology, 55, 425-434, 2020	Study design – no comparative cost analysis
O'Leary, F. M., Lo, M. C. I., Schreuder, F. B., "Cuts are costly": A review of deliberate self-harm admissions to a district general hospital plastic surgery department over a 12-month period, Journal of Plastic, Reconstructive and Aesthetic Surgery, 67, e109-e110, 2014	Study design – no comparative cost analysis

Study	Reason for Exclusion
Olfson, M., Gameroff, M. J., Marcus, S. C., Greenberg, T., Shaffer, D., National trends in hospitalization of youth with intentional self-inflicted injuries, American Journal of Psychiatry, 162, 1328-1335, 2005	Study design – no comparative cost analysis
Ostertag, L., Golay, P., Dorogi, Y., Brovelli, S., Cromec, I., Edan, A., Barbe, R., Saillant, S., Michaud, L., Self-harm in French-speaking Switzerland: A socio-economic analysis (7316), Swiss Archives of Neurology, Psychiatry and Psychotherapy, 70 (Supplement 8), 48S, 2019	Conference abstract
Ougrin, D., Corrigall, R., Poole, J., Zundel, T., Sarhane, M., Slater, V., Stahl, D., Reavey, P., Byford, S., Heslin, M., Ivens, J., Crommelin, M., Abdulla, Z., Hayes, D., Middleton, K., Nnadi, B., Taylor, E., Comparison of effectiveness and cost-effectiveness of an intensive community supported discharge service versus treatment as usual for adolescents with psychiatric emergencies: a randomised controlled trial, The Lancet Psychiatry, 5, 477-485, 2018	Not self-harm. In addition, the interventions evaluated in this economic analysis (a supported discharge service provided by an intensive community treatment team compared to usual care) were not relevant to any review questions
Palmer, S., Davidson, K., Tyrer, P., Gumley, A., Tata, P., Norrie, J., Murray, H., Seivewright, H., The cost-effectiveness of cognitive behavior therapy for borderline personality disorder: results from the BOSCOT trial, Journal of Personality Disorders, 20, 466-481, 2006	Not self-harm
Quinlivan L, Steeg S, Elvidge J, et al. Risk assessment scales to predict risk of hospital treated repeat self-harm: A cost-effectiveness modelling analysis. J Affect Disord. 2019;249:208-215.	Not relevant to any of the review questions in the guideline - this study estimated the cost-effectiveness of of risk assessment scales versus clinical assessment for adults attending an emergency department following self-harm
Richardson JS, Mark TL, McKeon R. The return on investment of postdischarge follow-up calls for suicidal ideation or deliberate self-harm. Psychiatr Serv. 2014;65(8):1012-1019.	Not enough data reporting on cost-effectiveness findings
Smits, M. L., Feenstra, D. J., Eeren, H. V., Bales, D. L., Laurenssen, E. M. P., Blankers, M., Soons, M. B. J., Dekker, J. J. M., Lucas, Z., Verheul, R., Luyten, P., Day hospital versus intensive out-patient mentalisation-based treatment for borderline personality disorder: Multicentre randomised clinical trial, British Journal of Psychiatry, 216, 79-84, 2020	Not self-harm
Tsiachristas, A., Geulayov, G., Casey, D., Ness, J., Waters, K., Clements, C., Kapur, N., McDaid, D., Brand, F., Hawton, K., Incidence and general hospital costs of self-harm across England: estimates based on the multicentre study of self-harm, Epidemiology & Psychiatric Science, 29, e108, 2020	Study design – no comparative cost analysis
Tsiachristas, A., McDaid, D., Casey, D., Brand, F., Leal, J., Park, A. L., Geulayov, G., Hawton, K., General hospital costs in England of medical and psychiatric care for patients who self-harm:	Study design – no comparative cost analysis

Study	Reason for Exclusion
a retrospective analysis, The Lancet Psychiatry, 4, 759-767, 2017	
Tubeuf, S., Saloniki, E. C., Cottrell, D., Parental Health Spillover in Cost-Effectiveness Analysis: Evidence from Self-Harming Adolescents in England, PharmacoEconomics, 37, 513-530, 2019	This study is not a separate study from one already included in the guideline for topic 5.2 (Cottrel 2018). This secondary analysis presents alternative parental health spillover quantification methods in the context of a randomised controlled trial comparing family therapy with treatment as usual as an intervention for self-harming adolescents of (Cottrel 2018), and discusses the practical limitations of those methods
Tyrer, P., Thompson, S., Schmidt, U., Jones, V., Knapp, M., Davidson, K., Catalan, J., Airlie, J., Baxter, S., Byford, S., Byrne, G., Cameron, S., Caplan, R., Cooper, S., Ferguson, B., Freeman, C., Frost, S., Godley, J., Greenshields, J., Henderson, J., Holden, N., Keech, P., Kim, L., Logan, K., Manley, C., MacLeod, A., Murphy, R., Patience, L., Ramsay, L., De Munroz, S., Scott, J., Seivewright, H., Sivakumar, K., Tata, P., Thornton, S., Ukoumunne, O. C., Wessely, S., Randomized controlled trial of brief cognitive behaviour therapy versus treatment as usual in recurrent deliberate self-harm: The POPMACT study, Psychological medicine, 33, 969-976, 2003	Study design - no economic evaluation
Van Roijen, L. H., Sinnaeve, R., Bouwmans, C., Van Den Bosch, L., Cost-effectiveness and Cost-utility of Shortterm Inpatient Dialectical Behavior Therapy for Chronically Parasuicidal BPD (Young) Adults, Journal of Mental Health Policy and Economics, 18, S19-S20, 2015	Conference abstract
van Spijker, B. A., Majo, M. C., Smit, F., van Straten, A., Kerkhof, A. J., Reducing suicidal ideation: cost-effectiveness analysis of a randomized controlled trial of unguided web-based self-help, Journal of medical Internet research, 14, e141, 2012	Not self-harm

Appendix K Research recommendations – full details

Research recommendations for review question: How should assessment for people who have self-harmed be undertaken in specialist settings?

No research recommendations were made for this review question.