National Institute for Health and Care Excellence

Final

Self-harm: assessment, management and preventing recurrence

[M] Evidence review for therapeutic risk taking strategies

NICE guideline number NG225

Evidence reviews underpinning recommendation 1.11.14. in the NICE guideline

September 2022

Final

National Institute for Health and Care Excellence

Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

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Therapeutic risk taking strategies

Review question

What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

Introduction

Therapeutic risk taking is a care management approach which employs principles whereby overly coercive responses to self-harm are avoided and replaced by a high regard for the patient's autonomy. This can involve a collaborative approach to the treatment and management of self-harm that does not eliminate risk factors that could lead to repeat self-harm, but enables important positive achievements, allowing the person to develop the tools to resist self-harm without professional assistance or coercion. Therapeutic risk taking does not include the refusal of care or assistance, such as denied admission to hospital or treatment. The aim of this review is to identify the effectiveness of therapeutic risk-taking strategies for people who have self-harmed.

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. **Exclusion:** • People displaying repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability
Intervention	Any therapeutic risk-taking strategy
Comparison	No therapeutic risk-taking strategy
Outcome	**Critical** • Self-harm repetition (for example, self-poisoning or self-cutting) • Suicide • Service user satisfaction **Important** • Quality of life • Engagement with services

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

A systematic review of the literature was conducted but no studies were identified which were applicable to this review question.

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

No studies were identified which were applicable to this review question (and so there are no evidence tables in Appendix D).

Summary of the evidence

No studies were identified which were applicable to this review question (and so there are no GRADE tables in Appendix F).

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 risk taking strategies and captures 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 centred on the patients' experiences and because patient satisfaction is likely to influence whether the patient engages with their care.

Quality of life and engagement with services were considered important outcomes by the committee. 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. Engagement with services was chosen as an important outcome because risk taking strategies can encourage autonomy and responsibility for their own care in people who have self-harmed. If risk taking strategies influence the likelihood of whether a person who has self-harmed engages with services, this will influence the effectiveness of after-care.

The quality of the evidence

No studies were identified that met the inclusion criteria so the committee based the recommendations on their own knowledge and experience.

Despite the lack of evidence, the committee decided not to prioritise this topic for research recommendations because therapeutic risk taking was understood by the committee to be a philosophy of care giving that was not limited to the management of self-harm, rather than an intervention itself. Therefore, the population for any study on therapeutic risk taking should not realistically be contained to people who have self-harmed. Additionally, the committee agreed that any new evidence would be unlikely to change recommendations, which were based on the committee's knowledge and experience of current best practice.

Benefits and harms

Due to the lack of evidence available from this review that demonstrated the benefits or harms of therapeutic risk taking, the committee used their knowledge and experience when discussing the potential harms of therapeutic risk taking, and agreed the potential for harm originated in the lack of consistent understanding of therapeutic risk taking in current practice. This allowed for the therapeutic aspect of the technique to be overlooked, potentially leading to the withholding of treatment or assessment inappropriately without adequate assessment or collaboration, as part of a 'risky' approach to care. The committee agreed such an approach was neglectful and could not be considered therapeutic risk taking. The committee discussed the benefits of a therapeutic risk taking approach according to a set of principles whereby the patient's problem-solving skills could be prioritised, and agreed that therapeutic risk taking, when implemented correctly, promoted autonomy as a part of recovery and could expose people who had self-harmed to realistic and challenging situations in a way that empowered them to overcome them on their own. This could further encourage self-efficacy and positive thinking, resulting in reduced self-harm. This approach

was considered by the committee to require more skill and focus on the part of the professional and the patient than, for example, blanket admission to hospital. Data from the qualitative review on the skills of specialist staff (see Evidence Report P) showed that people who had self-harmed appreciated being given responsibility for their own needs and actions and wanted to be given more autonomy by professionals. Some participants even specifically mentioned therapeutic risk taking in a positive light, giving examples such as early discharge from hospital where appropriate. Although this theme had low methodological quality as assessed using GRADE CERQual, the expertise and experience of the committee aligned with this evidence. The committee therefore recommended therapeutic risk taking be considered only when a psychosocial assessment has been carried out and in conjunction with any other psychiatric care, in order to acknowledge the potential benefits of therapeutic risk taking in a way that would not result in patients being denied assessment or care. The committee also agreed that therapeutic risk taking should be part of an ongoing assessment so that caregivers would recognise if the person's circumstances changed to suggest that a risk taking approach could lead to more potential harms than benefits. The committee agreed this would allow patients and caregivers to assess the efficacy of the approach for the patient and adapt as necessary.

Due to the lack of evidence, the committee drew from their knowledge of the existing literature about therapeutic risk taking, and agreed that therapeutic risk taking as described in Felton 2017 provided a sensible approach. The approach drew on the person's capabilities and strengths and included joint decision-making between professionals and patients, where sufficient information regarding the patient's options was given to ensure the patient could make an informed choice. Therapeutic risk taking was also described as an approach that was effective when professionals acknowledged that it could result in positive achievements and not just negative events. The committee agreed based on their experiences that these were all important factors that promoted autonomy and could improve the quality of care for people who have self-harmed. The committee also agreed that family, carers, and any other relevant professionals involved in the care of the person should be included in decision-making regarding therapeutic risk taking when the situation was appropriate, based on evidence from the qualitative review on involving family members and carers (see Evidence Report D), and the committee's knowledge that the involvement of relevant professionals would ensure good quality communication and enable decisions made regarding any therapeutic risk taking strategy to be followed. In Evidence Report D, moderate quality evidence showed that family members wanted to be involved in decisions regarding the care of the person who had self-harmed, and have their perspectives acknowledged. Some people who had self-harmed agreed they wanted their family members to be involved in their care, though others were wary of the potential for professionals to defer to the opinions of family members over their own. This showed that involving family members and carers in decisions could improve service user satisfaction when the situation was appropriate.

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 on using risk taking strategies for people who have self-harmed. When drafting the recommendations, they noted that using therapeutic risk taking following a psychosocial assessment was likely to empower the person who has self-harmed by promoting autonomy and positive thinking, and eventually improve their outcomes and reduce their self-harming behaviour. They acknowledged that therapeutic risk taking should be part of an ongoing assessment to revisit the decision, which has small resource implications in terms of health professionals' time, but they expressed the opinion that (i) the benefits to the person and their family and carers, (ii) the reduction in costs associated with earlier discharge where appropriate (and the subsequent increase in the availability of hospital beds), and (iii) the cost-savings resulting from the anticipated reduction in future self-harming behaviour outweighed any (small) costs of undertaking therapeutic risk taking.

Recommendations supported by this evidence review

This evidence review supports recommendation 1.11.14.

References – included studies

Effectiveness

No studies were identified that met the inclusion criteria.

Economic

No studies were identified that met the inclusion criteria.

Appendices

Appendix A Review protocols

Review protocol for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

Table 2: Review protocol

Field	Content
PROSPERO registration number	CRD42021230656
Review title	Therapeutic risk taking strategies
Review question	What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?
Objective	To identify the effectiveness of therapeutic risk taking strategies for people who have self-harmed.
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 therapeutic risk taking was not part of clinical practice before then. Other searches: • Inclusion lists of systematic reviews The full search strategies will be published in the final review.
Condition or domain being	All people who have self-harmed, including those with a mental health problem, neurodevelopmental disorder or a learning disability.

Field	Content
studied	'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. Exclusion: • People displaying repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability
Intervention	Any therapeutic risk taking strategy
Comparator/Reference standard/Confounding factors	No therapeutic risk taking strategy
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 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: • Primary, secondary and tertiary healthcare settings (including pre-hospital care, accident and emergency departments, community pharmacies, inpatient care, and transitions between departments and services) • Home, residential and community settings, such as supported accommodation • Supported care settings • Education and childcare settings • Criminal justice system • Immigration removal centres.
Primary outcomes (critical	Critical:

Field	Content
outcomes)	• Self-harm repetition (for example, self-poisoning or self-cutting) • Suicide • Service user satisfaction
Secondary outcomes (important outcomes)	Important: • Quality of life • Engagement with services
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. 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 I^2 statistic. I^2 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
Type and method of review	Intervention
Language	English
Country	England

Field	Content
Anticipated or actual start date	16/11/2020
Anticipated completion date	26/01/2022
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.
Other registration details	None

Field	Content
URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=230656
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, therapeutic risk taking, 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: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

Clinical

Database(s): Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily – OVID interface
Date of last search: 18th June 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	(risk assessment/mt or (risk assessment/ and safety.hw.) or risk management/)
5	(((therapeutic or positive) adj risk*) or (balanc* adj2 harm*)).ti,ab.
6	(cent* adj2 safety adj2 plan*).ti,ab.
7	(risk* adj2 assess* adj2 (document* or plan* or polic* or strateg*)).ti,ab.
8	(manag* adj2 risk*).ti,ab.
9	((take* or taking) adj2 risk*).ti,ab.
10	((policy or policies) adj5 risk*).ti,ab.
11	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) adj4 (consumer* or individual* or inpatient* or patient* or people or population* or self harm* or service user* or suicid*) adj4 (achievement or achiev* potential or ambition* or autonom* or capacity or choice* or confidence or decision* or ((have or take or taking*) adj2 control) or hope or goals or maturity or risk* or opportunity or (personal adj (development or growth)) or possibility or recovery or resilience or rights or safely or safety or self determination or skills)).ti,ab.
12	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) adj5 (achievement or achiev* potential or ambition* or autonom* or capacity or choice* or confidence or decision* or ((have or take or taking*) adj2 control) or hope or goals or maturity or risk* or opportunity or (personal adj (development or growth)) or possibility or recovery or resilience or rights or safely or safety or self determination or skills)).ti.
13	(understand* adj2 ((gain* adj3 harm*) or risk*)).ti,ab.

#	searches
14	(collaborative adj2 (risk assess* or safety plan*)).ti,ab.
15	((discharg* or send*) adj3 (communit* or facility or home or hospital* or unit* or ward*) adj10 (((goals or personal) adj (development or growth)) or recover* or safely or safety or self determination or risk*)).ti,ab.
16	(risk* adj7 recover*).ti,ab.
17	(risk* assess* adj5 manag*).ti,ab.
18	(((joint crisis or safety or self directed) adj plan*) or safety assessment*).ti,ab.
19	(responsible adj2 risk*).ti,ab.
20	(risk* adj2 safely).ti,ab.
21	(personal recover* or (recovery adj3 (approach or plan* or policy or supportive or tool*))).ti,ab.
22	(recovery adj (based or focused or oriented*)).ti,ab.
23	work* with* risk*.ti,ab.
24	(((co adj (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) adj5 (approach* or choice* or decision* or responsib*) adj5 (recover* or safety or safely)).ti,ab.
25	(((co adj (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) adj5 (consumer* or individual* or inpatient* or patient* or people or population* or self harm* or service user* or suicid*) adj5 (risk adj2 assess*)).ti,ab.
26	((risk adj7 (safety adj (planning or recovery))) or risk constructions).ti.
27	or/4-26
28	3 and 27
29	limit 28 to english language
30	limit 29 to yr="2000 -current"
31	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.
32	30 not 31

Database(s): Embase and Emcare – OVID interface
Date of last search: 18th June 2021

#	searches
1	automutilation/ or exp suicidal behavior/
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

#	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*).ti,ab.
3	or/1-2
4	(risk assessment/ and safety.hw.) or risk management/
5	(((therapeutic or positive) adj risk*) or (balanc* adj2 harm*)).ti,ab.
6	(cent* adj2 safety adj2 plan*).ti,ab.
7	(risk* adj2 assess* adj2 (document* or plan* or polic* or strateg*)).ti,ab.
8	(manag* adj2 risk*).ti,ab.
9	((take* or taking) adj2 risk*).ti,ab.
10	((policy or policies) adj5 risk*).ti,ab.
11	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) adj4 (consumer* or individual* or inpatient* or patient* or people or population* or self harm* or service user* or suicid*) adj4 (achievement or achiev* potential or ambition* or autonom* or capacity or choice* or confidence or decision* or ((have or take or taking*) adj2 control) or hope or goals or maturity or risk* or opportunity or (personal adj (development or growth)) or possibility or recovery or resilience or rights or safely or safety or self determination or skills)).ti,ab.
12	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) adj5 (achievement or achiev* potential or ambition* or autonom* or capacity or choice* or confidence or decision* or ((have or take or taking*) adj2 control) or hope or goals or maturity or risk* or opportunity or (personal adj (development or growth)) or possibility or recovery or resilience or rights or safely or safety or self determination or skills)).ti.
13	(understand* adj2 ((gain* adj3 harm*) or risk*)).ti,ab.
14	(collaborative adj2 (risk assess* or safety plan*)).ti,ab.
15	((discharg* or send*) adj3 (communit* or facility or home or hospital* or unit* or ward*) adj10 (((goals or personal) adj (development or growth)) or recover* or safely or safety or self determination or risk*)).ti,ab.
16	(risk* adj7 recover*).ti,ab.
17	(risk* assess* adj5 manag*).ti,ab.
18	(((joint crisis or safety or self directed) adj plan*) or safety assessment*).ti,ab.
19	(responsible adj2 risk*).ti,ab.
20	(risk* adj2 safely).ti,ab.
21	(personal recover* or (recovery adj3 (approach or plan* or policy or supportive or tool*))).ti,ab.
22	(recovery adj (based or focused or oriented*)).ti,ab.

#	searches
23	work* with* risk*.ti,ab.
24	(((co adj (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) adj5 (approach* or choice* or decision* or responsib*) adj5 (recover* or safety or safely)).ti,ab.
25	(((co adj (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) adj5 (consumer* or individual* or inpatient* or patient* or people or population* or self harm* or service user* or suicid*) adj5 (risk adj2 assess*)).ti,ab.
26	((risk adj7 (safety adj (planning or recovery))) or risk constructions).ti.
27	or/4-26
28	3 and 27
29	limit 28 to english language
30	limit 29 to yr="2000 -current"
31	(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.
32	30 not 31

Database(s): PsycINFO – OVID interface
Date of last search: 18th June 2021

#	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	(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	(risk assessment/ and safety.hw.) or risk management/)
5	(((therapeutic or positive) adj risk*) or (balanc* adj2 harm*)).ti,ab.
6	(cent* adj2 safety adj2 plan*).ti,ab.
7	(risk* adj2 assess* adj2 (document* or plan* or polic* or strateg*)).ti,ab.
8	(manag* adj2 risk*).ti,ab.
9	((take* or taking) adj2 risk*).ti,ab.
10	((policy or policies) adj5 risk*).ti,ab.
11	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) adj4

#	searches
	(consumer* or individual* or inpatient* or patient* or people or population* or self harm* or service user* or suicid*) adj4 (achievement or achiev* potential or ambition* or autonom* or capacity or choice* or confidence or decision* or ((have or take or taking*) adj2 control) or hope or goals or maturity or risk* or opportunity or (personal adj (development or growth)) or possibility or recovery or resilience or rights or safely or safety or self determination or skills)).ti,ab.
12	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) adj5 (achievement or achiev* potential or ambition* or autonom* or capacity or choice* or confidence or decision* or ((have or take or taking*) adj2 control) or hope or goals or maturity or risk* or opportunity or (personal adj (development or growth)) or possibility or recovery or resilience or rights or safely or safety or self determination or skills)).ti.
13	(understand* adj2 ((gain* adj3 harm*) or risk*)).ti,ab.
14	(collaborative adj2 (risk assess* or safety plan*)).ti,ab.
15	((discharg* or send*) adj3 (communit* or facility or home or hospital* or unit* or ward*) adj10 (((goals or personal) adj (development or growth)) or recover* or safely or safety or self determination or risk*)).ti,ab.
16	(risk* adj7 recover*).ti,ab.
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19	(responsible adj2 risk*).ti,ab.
20	(risk* adj2 safely).ti,ab.
21	(personal recover* or (recovery adj3 (approach or plan* or policy or supportive or tool*))).ti,ab.
22	(recovery adj (based or focused or oriented*)).ti,ab.
23	work* with* risk*.ti,ab.
24	(((co adj (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) adj5 (approach* or choice* or decision* or responsib*) adj5 (recover* or safety or safely)).ti,ab.
25	(((co adj (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) adj5 (consumer* or individual* or inpatient* or patient* or people or population* or self harm* or service user* or suicid*) adj5 (risk adj2 assess*)).ti,ab.
26	((risk adj7 (safety adj (planning or recovery))) or risk constructions).ti.
27	or/4-26
28	3 and 27
29	limit 28 to english language
30	limit 29 to yr="2000 -current"

Database(s): Cochrane Library – Wiley interface
Cochrane Database of Systematic Reviews, Issue 6 of 12, June 2021; Cochrane Central Register of Controlled Trials, Issue 6 of 12, June 2021
Date of last search: 18th June 2021

#	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.
9	{or #1-#8}
10	MeSH descriptor: [risk assessment] this term only and with qualifier(s): [methods – MT]
11	(“risk assessment” and safety):kw.
12	MeSH descriptor: [risk management] this term only
13	(((therapeutic or positive) next risk*) or (balanc* near/2 harm*)):ti,ab.
14	(cent* near/2 safety near/2 plan*):ti,ab.
15	(risk* near/2 assess* near/2 (document* or plan* or polic* or strateg*)):ti,ab.
16	(manag* near/2 risk*):ti,ab.
17	((take* or taking) near/2 risk*):ti,ab.
18	((policy or policies) near/5 risk*):ti,ab.
19	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) near/4 (consumer* or individual* or inpatient* or patient* or people or population* or “self harm*” or “service user*” or suicid*) near/4 (achievement or “achiev* potential” or ambition* or autonom* or capacity or choice* or confidence or decision* or ((have or take or taking*) near/2 control) or hope or goals or maturity or risk* or opportunity or (personal next (development or growth)) or possibility or recovery or resilience or rights or safely or safety or “self determination” or skills)):ti,ab.
20	((advocacy or collaborat* or contextual or discussion* or educat* or empower* or enabl* or facilitat* or foster* or involv* or promot* or support* or train*) near/5 (achievement or achiev* potential or ambition* or autonom* or capacity or choice* or

#	searches
	confidence or decision* or ((have or take or taking*) near/2 control) or hope or goals or maturity or risk* or opportunity or (personal next (development or growth)) or possibility or recovery or resilience or rights or safely or safety or "self determination" or skills)):ti.
21	(understand* near/2 ((gain* near/3 harm*) or risk*)):ti,ab.
22	(collaborative near/2 (risk assess* or "safety plan*")):ti,ab.
23	((discharg* or send*) near/3 (communit* or facility or home or hospital* or unit* or ward*) near/10 (((goals or personal) next (development or growth)) or recover* or safely or safety or "self determination" or risk*)):ti,ab.
24	(risk* near/7 recover*):ti,ab.
25	("risk* assess*" near/5 manag*):ti,ab.
26	((("joint crisis" or safety or "self directed") next plan*) or "safety assessment*"):ti,ab.
27	(responsible near/2 risk*):ti,ab.
28	(risk* near/2 safely):ti,ab.
29	("personal recover*" or (recovery near/3 (approach or plan* or policy or supportive or tool*))):ti,ab.
30	(recovery next (based or focused or oriented*)):ti,ab.
31	"work* with* risk*":ti,ab.
32	(((co next (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) near/5 (approach* or choice* or decision* or responsib*) near/5 (recover* or safety or safely)):ti,ab.
33	(((co next (construct* or produce)) or collaborat* or engag* or joint* or shared or support*) near/5 (consumer* or individual* or inpatient* or patient* or people or population* or "self harm*" or "service user*" or suicid*) near/5 (risk near/2 assess*)):ti,ab.
34	((risk near/7 (safety next (planning or recovery))) or "risk constructions"):ti.
35	{OR #10-#34}
36	(#9 and #35) with Cochrane Library publication date Between Jan 2000 and Jun 2021

Database(s): CDSR and HTA – CRD interface
Date of last search: 18th June 2021

#	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

#	Searches
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 2021

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.
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
3	MeSH descriptor: [self mutilation] this term only

#	Searches
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

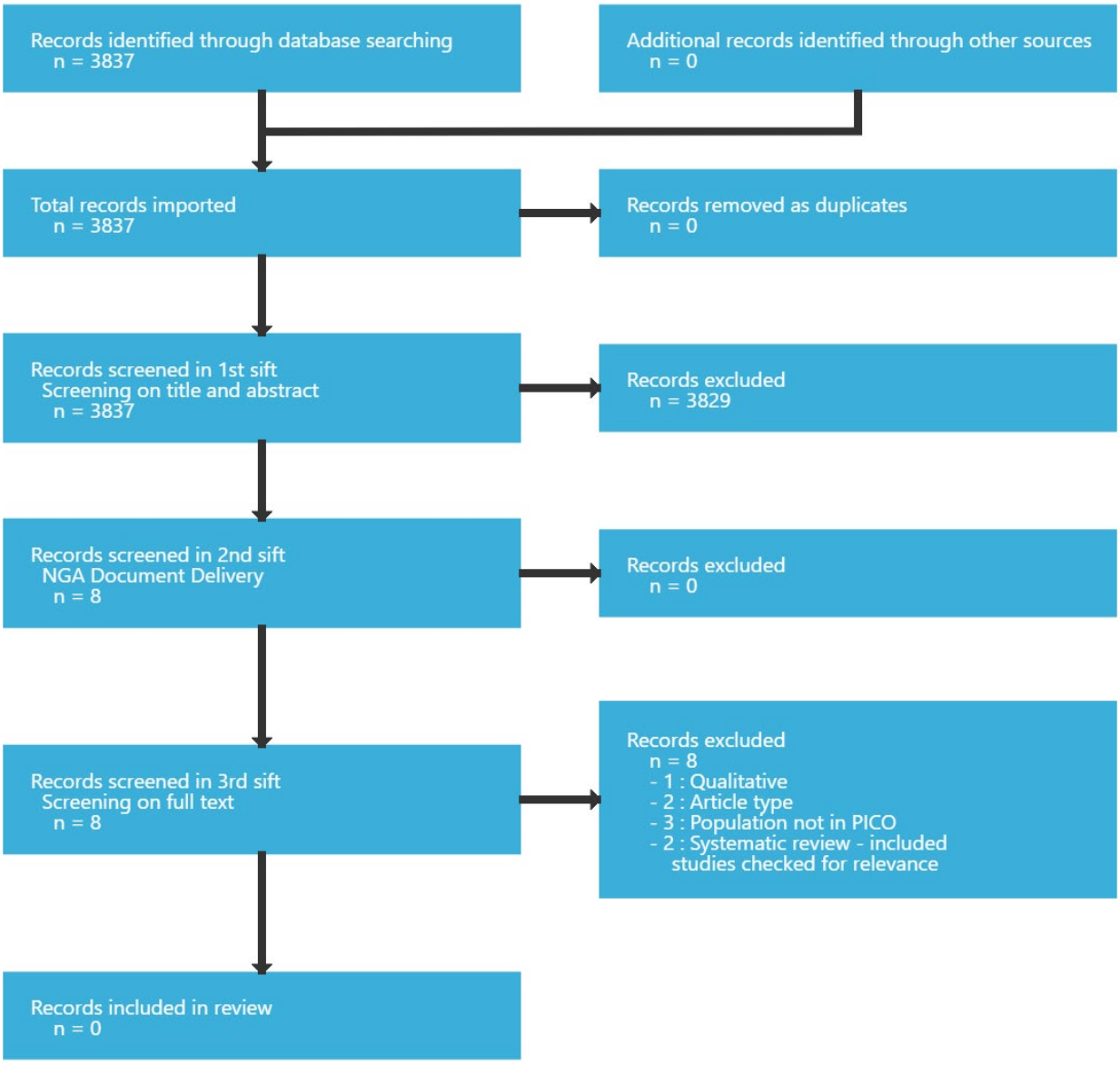
#	Searches
1	MeSH descriptor: poisoning IN NHSEED, HTA
2	MeSH descriptor: self-injurious behavior EXPLODE ALL TREES IN NHSEED, HTA
3	MeSH descriptor: self mutilation IN NHSEED, HTA
4	MeSH descriptor: suicide IN NHSEED, HTA
5	MeSH descriptor: suicidal ideation IN NHSEED, HTA
6	MeSH descriptor: suicide, 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 "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or

#	Searches
	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 Effectiveness evidence study selection

Study selection for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

Figure 1: Study selection flow chart



Appendix D Evidence tables

Evidence tables for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

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

Appendix E Forest plots

Forest plots for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

No meta-analysis was conducted for this review question and so there are no forest plots.

Appendix F Modified GRADE tables

Modified GRADE tables for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

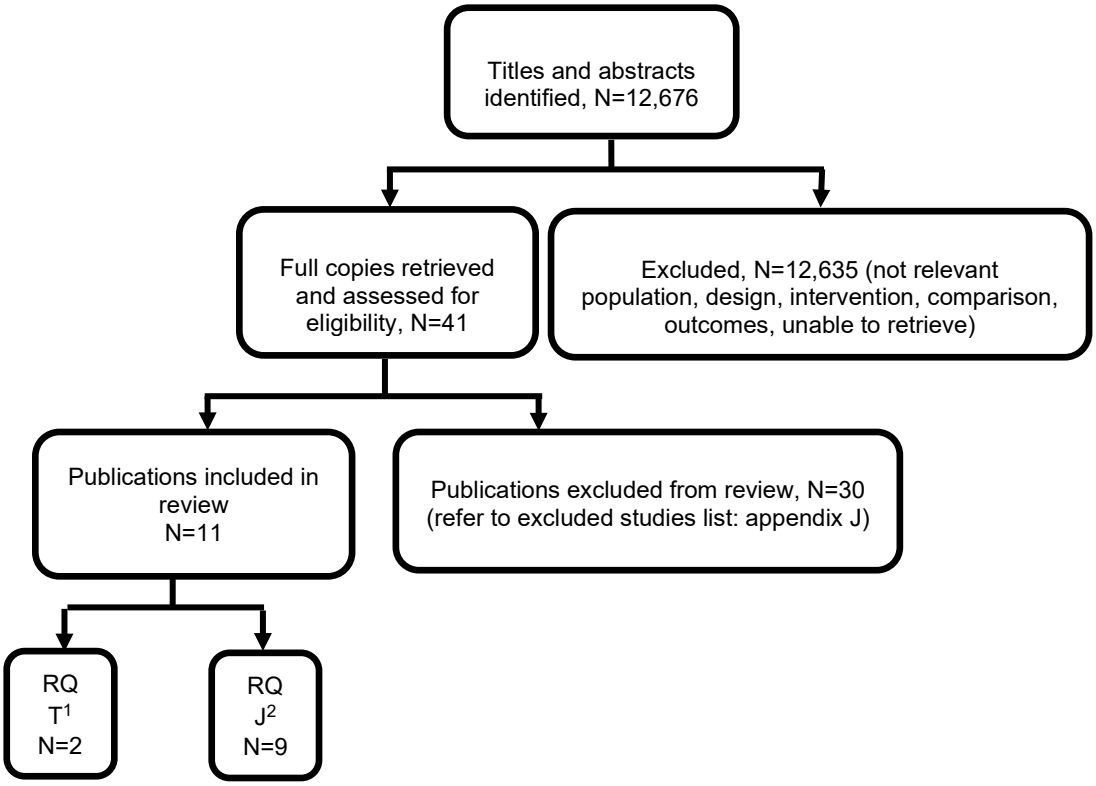
No evidence was identified which was applicable to this review question.

Appendix G Economic evidence study selection

Study selection for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

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: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

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

Appendix I Economic model

Economic model for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

No economic analysis was conducted for this review question.

Appendix J Excluded studies

Excluded studies for review question: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

Excluded effectiveness studies

Table 3: Excluded studies and reasons for their exclusion

Study	Code [Reason]
Birch, S., Cole, S., Hunt, K. et al. (2011) Self-harm and the positive risk taking approach. Can being able to think about the possibility of harm reduce the frequency of actual harm?. Journal of Mental Health 20: 293-303	- Article type *Audit*
Cutcliffe, J., Links, P., Harder, H. et al. (2012) Understanding the risks of recent discharge: The phenomenological experiences: Trying to Survive While Living Under the Proverbial "Sword of Damocles". Crisis 33: 265-272	- Qualitative
Donovan, A. L., Aaronson, E. L., Black, L. et al. (2021) Keeping Patients at Risk for Self-Harm Safe in the Emergency Department: A Protocolized Approach. Joint Commission Journal on Quality and Patient Safety 47: 23-30	- Population not in PICO *<27% of participants had self-harmed*
Haroz, E. E., Decker, E., Lee, C. et al. (2020) Evidence for suicide prevention strategies with populations in displacement: a systematic review. Intervention 18: 37-44	- Systematic review - included studies checked for relevance
Harrington, A., Darke, H., Ennis, G. et al. (2019) Evaluation of an alternative model for the management of clinical risk in an adult acute psychiatric inpatient unit. International journal of mental health nursing 28: 1099-1109	- Population not in PICO *Mixed patient population - not clear how many participants had self-harmed*
Melonas, J. M. (2011) Patients at risk for suicide: risk management and patient safety considerations to protect the patient and the physician. Innovations in Clinical Neuroscience 8: 45-9	- Article type *Q&A column*
Podlogar, M. C. and Joiner, T. E. (2020) Allowing for Nondisclosure in High Suicide Risk Groups. Assessment 27: 547-559	- Population not in PICO *Mixed patient population - not clear how many participants had self-harmed*
Strand, M. and Von Hausswolff-Juhlin, Y. (2015) Patient-controlled hospital admission in psychiatry: A systematic review. Nordic Journal of Psychiatry 69: 574-586	- Systematic review - included studies checked for relevance

Excluded economic studies

Table 4: 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 Kazdin Kerfoot Kerfoot 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: What is the effectiveness of therapeutic risk taking strategies for people who have self-harmed?

No research recommendations were made for this review question.