Problem solving approach [2015]

SCOPING QUESTION: Is problem solving approach better than treatment as usual for persons with thoughts or plans of self-harm in the last month or acts of self-harm in the last year?

Background

Persons with thoughts or plans of self-harm in the last month means persons with report or family/associate report of current thoughts or plans of self-harm, OR thoughts or plans of self-harm in the last month, regardless of the stated intent. Persons with acts of self-harm in the last year means report or family/associate report of current act of self-harm, OR act of self-harm in the last year, regardless of the stated intent. Persons identified with any of the other priority conditions will receive the corresponding effective interventions within the package. This table states ADDITIONAL interventions needed for these persons.

This scoping question evaluates whether problem solving therapy is an effective intervention for persons with thoughts or plans of self-harm in the last month or acts of self-harm in the last year. Problem solving therapy can be considered as a form of social support in the broad sense.

Population/Intervention(s)/Comparator/Outcome(s) (PICO)

Population:	persons with thoughts, plans or acts of self-harm
Interventions:	problem solving approach
Comparisons:	treatment as usual
Outcomes:	suicide mortality
	repetition of suicide attempts and acts of self-harm
	thoughts or plans of self-harm, hopelessness
	quality of life
	functionality status

Persons identified with any of the other priority conditions will receive the corresponding effective interventions within the package; this evidence profile states ADDITIONAL interventions needed regarding thoughts, plans or acts of self-harm.

List of the systematic reviews identified by the search process

INCLUDED IN GRADE TABLES OR FOOTNOTES

Hawton KKE et al (1999). Psychosocial and pharmacological treatments for deliberate self harm*. *Cochrane Database of Systematic reviews,* (4):CD001754.

**Problem solving therapy in the five studies of the systematic review refers to problem solving interventions, problem-oriented therapy, problem solving skills training, cognitive-behavioural problem-solving treatment, and manual assisted cognitive behavioural therapy including problem solving.*

PICO Table

Serial no.	Intervention/Comparison	Outcomes	Systematic reviews used for GRADE	Explanation
I	Problem solving therapy / Standard aftercare	Repetition of self-harm	Hawton KKE et al (1999)	One systematic review identified.

Narrative description of the studies that went into the analysis

Systematic review by Hawton et al (1999) reported a trend towards reduced repetition of deliberate self-harm for problem-solving therapy. Patients included in the analysis are mostly suicide attempters.

Author	Title	Reference	Description of the study	Results
Hawton KKE et al (1999)	Psychosocial and pharmacological treatments for deliberate self harm and attempted suicide.	Cochrane Database of Systematic reviews, (4):CD001754.	Systematic review, five randomized studies.	Promising results were found for problem-solving therapy.

No systematic studies on the outcomes rated as important (thoughts and plans of self-harm, hopelessness, quality of life, functionality status) could be identified.

GRADE Tables

Table 1

Author(s): Fleischmann A
Date: 2009-08-13
Question: Should Problem solving therapy vs Standard aftercare be used in Self-harm patients?
Settings: After hospitalization
Bibliography: Hawton KKE et al (1999). Psychosocial and pharmacological treatments for deliberate self harm. *Cochrane Database of Systematic reviews,* (4):CD001754 (Evans et al, 1999; Gibbons et al, 1978; Hawton et al, 1987; McLeavey et al, 1994; Salkovskis et al, 1990).

Quality assessment							Summary of findings					
							No of patients		Effect		Quality	Importance
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations	Problem solving therapy	Standard aftercare	Relative (95% CI)	Absolute		
Repetition of self-harm (follow-up median 1 years; Interview, hospital records)												
5	randomised trials	no serious limitations	no serious inconsistency	no serious indirectness	serious[1]	none	45/290 (15.5%)	54/281 (19.2%) 0%	RR 0.71 (0.45 to 1.11)	56 fewer per 1000 (from 106 fewer to 21 more) 0 fewer per 1000 (from 0 fewer to 0 more)	⊕⊕⊕O MODERATE	CRITICAL
Suicide mortality												
0	no evidence available					none	0/0 (0%)	0/0 (0%) 0%	RR 0 (0 to 0)	0 fewer per 1000 (from 0 fewer to 0 fewer) 0 fewer per 1000 (from 0 fewer to 0 fewer)		

[1] Number of individuals included is low in Evans et al (1999); Hawton et al (1987); McLeavey et al (1994), Salkovskis et al, (1990). Also, confidence intervals are very wide.

All five studies reported reduced repetition of deliberate self-harm in patients in the experimental groups. However, the summary odds ratio of 0.70 (95% CI 0.45 to 1.11) was not statistically significant. Excluding the one trial which did not have the highest quality of concealment of allocation (McLeavey et al, 1994) made little difference to the summary odds ratio (0.74; 0.46 to 1.20).

Additional information that was not GRADEd

During updates in 2012 and 2015, the following systematic review and studies were found to be relevant without changing the recommendation:

Systematic review:
NICE Clinical Guideline 133. Self-harm: longer-term management. National Institute for Health and Clinical Excellence, 2011.

Studies:
A randomized control trial by Hatcher et al (2011) showed that Problem solving therapy intervention did not significantly impact the proportion of people who had presented again with self-harm when comparing all episodes or where the index episode was the first episode, but where the index episode was repeated self-harm, those who received therapy were less likely to present again with self-harm.

A study by Gyöngyi et al (2012) reported that administration of problem solving training assessments showed a significant decrease of level of depression and hopelessness, an increase of problem analysing and goal orientation scores, and a decrease in emotion centered coping scores. Patients included in the analysis were mostly suicide attempters. This short, structured form of therapy for in- and out-patients, was developed for the improvement of problem solving skills and can be an efficient, user friendly method in suicide prevention.

References

Evans K et al (1999). Manual-assisted cognitive behaviour therapy (MACT): a randomized controlled trial of a brief intervention with a bibliotherapy in the treatment of recurrent deliberate self-harm. *Psychological Medicine,* 29:19–25.

Gibbons JS et al (1978). Evaluation of a social work service for self-poisoning patients. *British Journal of Psychiatry*, 133:111–8.

Gyöngyi et al (2012). An effective method of therapy in suicide prevention: problem solving training in the clinical population. Psychiatria Hungarica : A Magyar Pszichiátriai Társaság tudományos folyóirata, 27 (2):92

Hatcher S, Sharon C, Parag V, Collins N (2011). Problem-solving therapy for people who present to hospital with self-harm: Zelen randomised controlled trial. *British Journal of Psychiatry*, 199:310-316. DOI: 10.1192/bjp.bp.110.090126

Hawton K et al (1987). Evaluation of out-patient counselling compared with general practitioner care following overdoses. *Psychological Medicine,* 17:751–61.

Hawton KKE et al (1999). Psychosocial and pharmacological treatments for deliberate self harm. *Cochrane Database of Systematic reviews,* (4):CD001754.

McLeavey BC et al (1994). Interpersonal problemsolving skills training in the treatment of self-poisoning patients. *Suicide & Life Threatening Behavior,* 24:382–94.

Mynors-Wallis LM et al (1995). Randomized controlled trial comparing problem-solving treatment with amitriptyline and placebo for major depression in primary care. *British Medical Journal*, 310:441–5.

Mynors-Wallis LM et al (2000). Randomized controlled trial of problem-solving treatment, antidepressant medication and combined treatment for major depression in primary care. *British Medical Journal*, 320:26–30.

NICE Clinical Guideline 133. Self-harm: longer-term management. National Institute for Health and Clinical Excellence, 2011.

Patel V et al (2003) Efficacy and cost-effectiveness of drug and psychological treatments for common mental disorders in general health care in Goa, India: a randomized controlled trial. *Lancet*, 361:33-39.

Salkovskis P, Atha C, Storer D (1990). Cognitive-behavioural problem solving in the treatment of patients who repeatedly attempt suicide. A controlled trial. *British Journal of Psychiatry,* 157:871–6.

From evidence to recommendations

Factor	Explanation
Narrative summary of the evidence base	The evidence is inconclusive and so it is not possible to determine if there is a clinically important difference between problem solving therapy and treatment as usual for prevention of repeated self-harm (RR 0.71, 0.45 to 1.11). No studies are present on the outcome of suicide mortality.
Summary of the quality of evidence	The quality of evidence is moderate. One systematic review with formal meta-analysis is available.

Balance of benefits versus harms	As there are no meta-analysed data for adverse effects, the balance of benefits and harms seems favorable for a problem solving approach.
Values and preferences including any variability and human rights issues	All patients with thoughts or plans of self-harm in the last month or acts of self-harm in the last year should receive an intervention.
Costs and resource use and any other relevant feasibility issues	Problem-solving therapy is by far the least complex of the brief therapies, and PHC versions for problem-solving therapy exist (Mynor-Wallis et al (1995, 2000); Patel et al (2003). Nonetheless, learning problem-solving also requires training and supervision.

Recommendation(s)

A structured problem solving approach should be considered as a treatment for persons with acts of self-harm in the last year, if there are sufficient human resources (e.g. supervised community health workers).

Strength of recommendation: STANDARD