

Problem-solving approach in people with depressive symptoms (in absence of depressive episode/disorder)

**Q3: In people with depressive symptoms (in absence of depressive episode/disorder) - who are in distress or have some degree of impaired functioning - is a problem-solving approach better (more effective in symptom reduction) than treatment as usual?**

**Background**

A problem-solving approach refers to the process of working together with the patient to identify and implement strategies for either (a) resolving or reducing a problem situation or (b) managing the impact of the problem situation. Problem-solving therapy - a form of support widely taught as part of counseling psychology and social work postgraduate training - is a widely studied intervention for major depression (Cuijpers et al 2007). This scoping question addresses whether a problem-solving approach is effective for sub-threshold depression.

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

Population: adults with “sub-threshold” symptoms of depression, in the absence of a diagnosable disorder

Interventions: problem-solving therapy

Comparisons: usual care

Outcomes: treatment effectiveness in terms of symptom reduction

**List of the systematic reviews identified by the search process**

*INCLUDED IN GRADE TABLES OR FOOTNOTES*

Cuijpers P, van Straten A, Warmerdam L (2007a). Problem solving therapies for depression: a meta-analysis. *European Psychiatry*, 22:9-15.

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Oxman TE et al (2008). Problem-solving treatment and coping styles in primary care for minor depression. *Journal of Consulting and Clinical Psychology*, 76:933-43.

#### *EXCLUDED FROM GRADE TABLES AND FOOTNOTES*

Bell AC, D'Zurilla TJ (2009). Problem-solving therapy for depression: A meta-analysis. *Clinical Psychology Review*, 29:348–53. (reason for excluding: meta-analysis did not provide confidence intervals (CI) and attrition rates).

Cuijpers P, Smit F, van Straten A.(2007b). Psychological treatments of subthreshold depression: a meta-analytic review. *Acta Psychiatrica Scandinavica*, 115:434-41. (reason for excluding: included only one relevant study on problem-solving therapy).

Malouff JM, Thorsteinsson EB, Schutte NC. (2007). The efficacy of problem solving therapy in reducing mental and physical health problems: A meta-analysis. *Clinical Psychology Review*, 27:46–57. (reason for excluding: meta-analysis involved only 8 studies of depression).

#### **PICO Table**

Serial no.	Intervention/Comparison	Outcomes	Systematic reviews used for GRADE	Explanation
1	Problem Solving Therapy versus usual care	treatment effectiveness in terms of symptom reduction	Cuijpers P, van Straten A, Warmerdam L (2007a). Problem solving therapies for depression: a meta-analysis. <i>European Psychiatry</i> , 22:9-15.	This review is preferred over (a) Bell & D'Zurilla (2009, which provides neither CIs nor attrition rates) and (b) Malouff et al (2007, which covers only 8 studies on depression)

#### **Narrative description of the studies that went into the analysis**

##### ***Cuijpers et al ( 2007a)***

It is a systematic review of 12 randomized controlled trials, but only 5 involved ITT analysis. Altogether, data were available for 508 patients in the problem-solving therapy (PST) arm and 545 comparison arms.

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All included studies met the following definition of PST: "Psychological intervention in which the following elements had to be included: definition of personal problems, generation of multiple solutions to each problem, selection of the best solution, the working out of a systematic plan for this solution, and evaluation as to whether the solution has resolved the problem."

Cuijpers et al (2007a) describe the studies as following: " In six studies, subjects were recruited from the community, while in the other seven, subjects were recruited from primary care or clinical settings. Three studies were aimed at older adults, and the remaining nine studies focused on younger adults. In seven studies, the participating subjects had to meet diagnostic criteria for a major depression. The remaining six studies included subjects who scored high on a self-rating depression, or also included subjects who met criteria for other mood disorders. In eight studies PST was delivered in individual format, in four studies in group format, and in one study as guided self-help. The number of sessions in the individual and group interventions varied between six and 12. Several different types of control groups were used: waiting list (four studies); care-as-usual (three studies), pill placebo (three studies), and psychological placebo intervention (two studies); while one study did not include a control condition (but compared PST to other treatments)."

## **GRADE Tables**

**Table 1**

**Author(s):** Mark van Ommeren and Scott Baker

**Date:** 2009-07-01

**Question:** Should a problem-solving approach vs treatment as usual be used for complaints of depressive symptoms(in absence of depression or another priority condition) ?

**Settings:**

**Bibliography:** Cuijpers P, van Straten A, Warmerdam L (2007a). Problem solving therapies for depression: a meta-analysis. *European Psychiatry*, 22:9-15.

Quality assessment							Summary of findings					Importance
							No of patients		Effect		Quality	
No of studies	Design	Limitations	Inconsistency	Indirectness	Imprecision	Other considerations			a problem-solving approach	treatment as usual		
Depressive symptom severity post intervention (Better indicated by higher values)												
12 <sup>1</sup>	randomized trials	no serious limitations	very serious <sup>1,2</sup>	serious <sup>3</sup>	no serious imprecision	none	508	545	-	SMD 0.83 higher (0.45 to 1.21 higher) <sup>1,4,5</sup>	⊕○○○ VERY LOW	CRITICAL
Safety												

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0	no evidence available					none	0/0 (0%)	0/0 (0%)	RR 0 (0 to 0)	0 fewer per 1000 (from 0 fewer to 0 fewer)		IMPORTANT
								0%		0 fewer per 1000 (from 0 fewer to 0 fewer)		

<sup>1</sup> See paragraph 3.2, p 11 of review

<sup>2</sup> I-squared = 83%

<sup>3</sup> The meta-analysis included both major depression and subthreshold depression. However, PST worked better for subthreshold depression (see para 3.3 page 11), which means that the reported effect size is likely a conservative estimate. Similarly, the control group was mixed, including some bona fide interventions, which also may have led to an underestimation of the effect size when comparing PST with no treatment or treatment as usual.

<sup>4</sup> Random effects model data rather than fixed effects model data are displayed, because of assumption of underlying differences.

<sup>5</sup> Of note, a very recent well designed, relevant study found similar results: (Oxman et al, 2008)..

## **Reference list**

Bell AC, D'Zurilla TJ (2009). Problem-solving therapy for depression: A meta-analysis. *Clinical Psychology Review*, 29:348–53.

Cuijpers P, van Straten A, Warmerdam L (2007a). Problem solving therapies for depression: a meta-analysis. *European Psychiatry*, 22:9-15.

Cuijpers P, Smit F, van Straten A(2007b). Psychological treatments of subthreshold depression: a meta-analytic review. *Acta Psychiatrica Scandinavica*, 115:434-41.

Malouff JM, Thorsteinsson EB, Schutte NC. (2007). The efficacy of problem solving therapy in reducing mental and physical health problems: A meta-analysis. *Clinical Psychology Review*, 27:46–57.

Oxman TE et al (2008). Problem-solving treatment and coping styles in primary care for minor depression. *Journal of Consulting and Clinical Psychology*, 76:933-43.

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.

**From evidence to recommendations**

<b>Factor</b>	<b>Explanation</b>
<b>Narrative summary of the evidence base</b>	In terms of symptom score severity, there is very low quality evidence that patients who received PST had significantly better scores compared to those who did not receive this treatment (N=12; n=1053; SMD=0.83 (95%CI 0.45-1.21).
<b>Summary of the quality of evidence</b>	VERY LOW (see GRADE table).
<b>Additional evidence (eg related evidence that was not GRADED)</b>	<p>Some trials included participants with diagnosable depressive disorders, though it appears that the treatment was less effective in this group-thus, this bias would have under-estimated true effects (see footnote 4 in the GRADE table).</p> <p>Of note, problem-solving treatment did not show to be effective in 2 studies in low income settings: Goa (Patel et al, Lancet, 2003) and in Aceh, Indonesia (Bass et al, unpublished data, 2008).</p>
<b>Balance of benefits versus harms</b>	No meta-analyzed data are available for adverse effects. PST has benefits and is unlikely to have any significant clinical harms - suggesting a positive balance of benefits versus harms.
<b>Define the values and preferences including any variability and human rights issues</b>	<p>A key concern with such clinical presentations is - in many contexts - the inappropriate use of pharmacotherapies (for e.g. vitamins and hypnotics) leading to increased costs of care (often borne by patients) and iatrogenic problems (for e.g. hypnotic dependence). Thus, providing an evidence-based alternative treatment has benefits beyond therapeutic efficacy in reducing the use of non-evidence based treatments with adverse economic and health consequences.</p> <p>Problem-solving therapy has value in that it may possibly address the ongoing social stressors (e.g. domestic dispute) that play a role in the development and maintenance of sub-threshold symptoms.</p>

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<b>Define the costs and resource use and any other relevant feasibility issues</b>	There are likely substantial costs of training and therapist time; and opportunity costs of travel and time for sessions. Balanced against this is the cost of inappropriate use of pharmacotherapies. Little is known about the feasibility of PST in non-western settings where much mental health care is provided in primary care settings and is often financed out-of-pocket. In socialized health care systems with relatively strong primary mental health care systems, these issues may be of less concern.
<b>Final recommendation(s)</b>  If human resources are available in non-specialized health care setting, a problem solving approach should be considered in people with depressive symptoms (in absence on depressive episode/disorder) - who are in distress or have some degree of impaired functioning. Strength of recommendation: STANDARD	

**Update of the literature search – June 2012**

In June 2012 the literature search for this scoping question was updated. The following systematic review was found to be relevant without changing the recommendation:

NICE National Clinical Guideline Number 123. Common Mental Health Disorders. National Institute for Health and Clinical Excellence, 2011