## PROBLEM-SOLVING TRAINING FOR PATIENTS WITH ATTEMPTED SUICIDE

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#### **ABSTRACT**

Current research found that low level of problem solving skills is one of the most important cognitive risk factors of suicide vulnerability. Problem solving training (PST) was established as a short, structured cognitive-behavioural intervention for the improvement of problem solving skills. The Hungarian adaptation and results of PST are presented in this study.

**Subjects:** 57 patients from the psychiatric ward of a general hospital and 83 patients from an outpatient clinical psychology service participated in the study. All the patients (N=140) had one or more episode of serious self-harm or suicide attempt in their psychiatric history. Exclusion criteria were acute psychosis or acute crisis.

**Design**: Following a suicide attempt psychiatric inpatients received treatment as usual (TAU) and psychiatric outpatients were assigned to an 8-week problem solving training group (PST group).

Results: Level of depression decreased significantly in both groups, but hopelessness and level of problem solving skills changed significantly only in the PST group. Especially planful problem solving, problem analysis, seeking social support improved significantly. The PST group showed significant decrease in negative problem orientation, impulsivity, avoidance and dysfunctional attitudes also. Depression and hopelessness indicated significant negative correlations with planful problem solving, emotional balance and positive problem orientation. Dysfunctional attitudes: the need for autonomy indicated very strong significant correlations with depression and hopelessness..

Conclusions: PST should be a valuable approach in decreasing suicide vulnerability.

#### **INTRODUCTION**

Modifiable and non-modifiable risk factors play part in the development of suicide vulnerability. Psychological risk factors such as low mood, negative thinking style, hopelessness, vague autobiographic memory and impaired problem solving abilities belong to the modifiable risk factors - effective suicide prevention should focus on them.

Studies show that improvement in problem solving skills can lead to decreased suicide vulnerability by reducing the number of suicide attempts. Cognitive behavior therapy, dialectical behaviour therapy, problem solving therapy, mentalisation-based treatment and interpersonal therapy all have positive effects for preventing suicide by decreasing both suicidal ideation and the reattempt rate of past suicide attempters (Brown and Jager-Hyman, 2014). Systematic rewievs indicated that problem-solving therapy is a very promising brief intervention following selfharm by improving the mediating factors of suicidality such as hopelessness, depression and poor problem solving abilities (Mann et al., 2005.) NICE guidelines recommend the use of problem solving therapy as a promising intervention to prevent repeated self-harm (Kendall et al., 2011.).

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**METHODS** 

**Subjects:** 57 patients from the psychiatric ward of a general hospital and 83 patients from an outpatient clinical psychology service participated in the study. All the patients (N=140) had one or more episode of serious self-harm or suicide attempt in their psychiatric history. Exclusion criteria were acute psychosis or acute crisis.

## Questionnaires:

- Beck Depression Inventory, (BDI)
- Beck Hopelessness Scale (BHS)
- Dysfunctional Attitude Scale (DAS)
- Ways of Coping Questionnaire (WAYS)
  Mean-Ends Problem Solving Test (MEPS)

### **OBJECTIVE**

To adapt the problem solving training (PST) method in Hungary in suicide prevention, to investigate its efficacy by comparing with treatment as usual (TAU) as well as to measure the change in problem solving skills, depression, hopelessness and dysfunctional attitudes after both interventions.

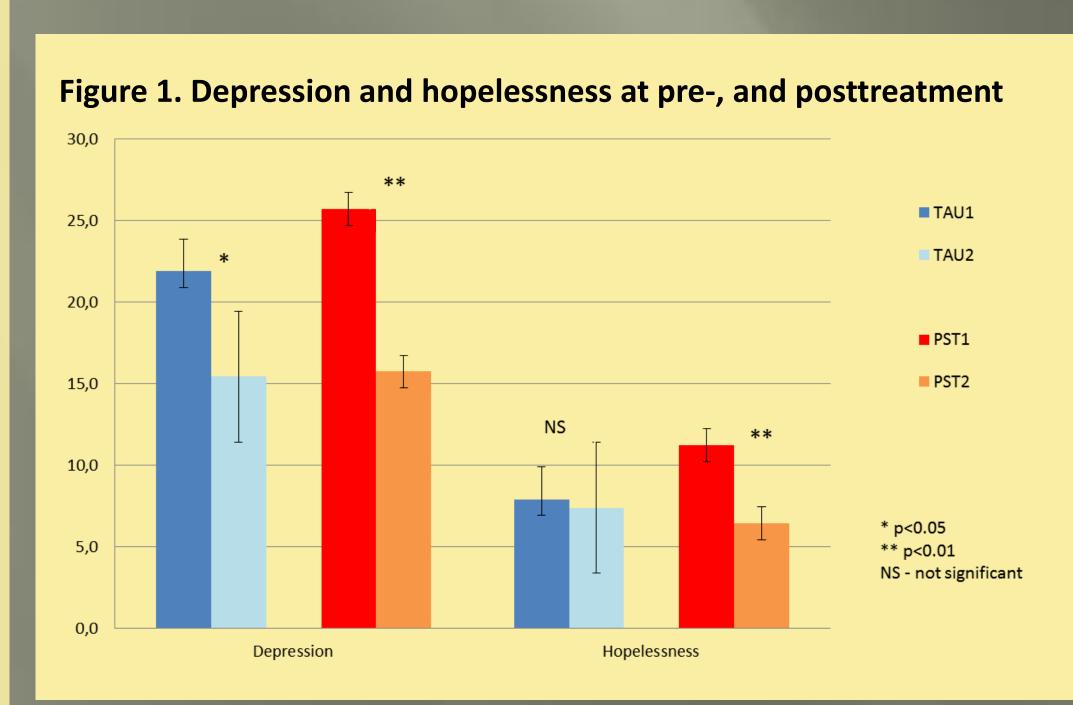


Table 1. Correlations between coping and depression / hopelessness

` ′	HOPELESSNESS (BHS)
Pearson's r (Sign.)	Pearson's r (Sign.)
- <b>.250</b> ** <b>(</b> .006)	172 (.062)
- <b>.303</b> ** <b>(</b> .001)	- <b>.251</b> ** (.006)
- <b>.278**</b> (.004)	186 (.057)
- <b>.362**</b> (.001)	- <b>.381**</b> (.000)
071 (.438)	027 (.774)
.058 (.526)	.023 (.802)
.017 (.853)	072 (.436)
.110 (.239)	.094 (.316)
- <b>.359*</b> (.044)	- <b>.498**</b> (.004)
<b>.462**</b> (.007)	.298 (.092)
- <b>.446**</b> (.009)	- <b>.500**</b> (.003)
.290 (.101)	.289 (.103)
.253 (.162)	.326 (.069)
	Pearson's r (Sign.) 250** (.006) 303** (.001) 278** (.004) 362** (.001) 071 (.438)  .058 (.526)  .017 (.853)  .110 (.239) 359* (.044)  .462** (.007) 446** (.009)  .290 (.101)

#### RESULTS

- 1. Depression decreased significantly both in the TAU and PST groups (p<0,001).
- 2. Hopelessness decreased significantly only in the PST group (p<0,05) (Figure 1.)
- 3. Post PST: significant increase in problem solving (p<0,001), problem analysis and seeking social support (p<0,5).
- 4. Post PST: significant decrease in negative problem orientation, impulsivity and avoidance (p<0,5) on the SPSI-R (Figure 2).
- 5. Low mood and hopelessness had significant correlations with impaired problem solving abilities and emotion-focussed coping (p<0,01; Table 1).
- 6. Dysfunctional attitudes had significant correlations with depression and hopelessness (p<0,01; Table 2).

Figure 2. Problem solving skills at pre -, and posttreatment in the TAU / PST group

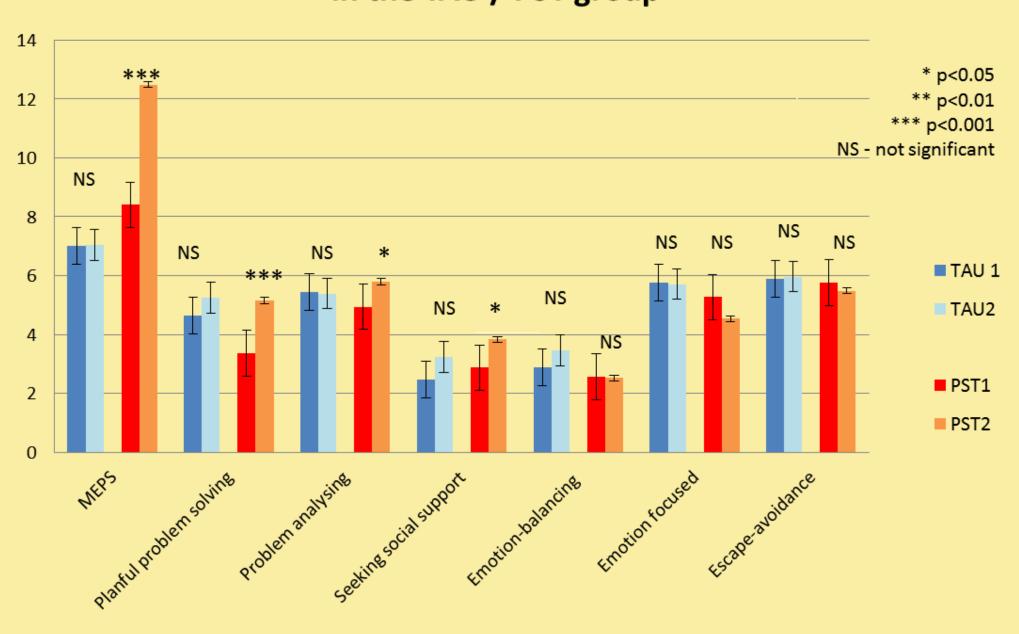


Figure 3. Changes in social problem solving skills (SPSI-R) in the PST group

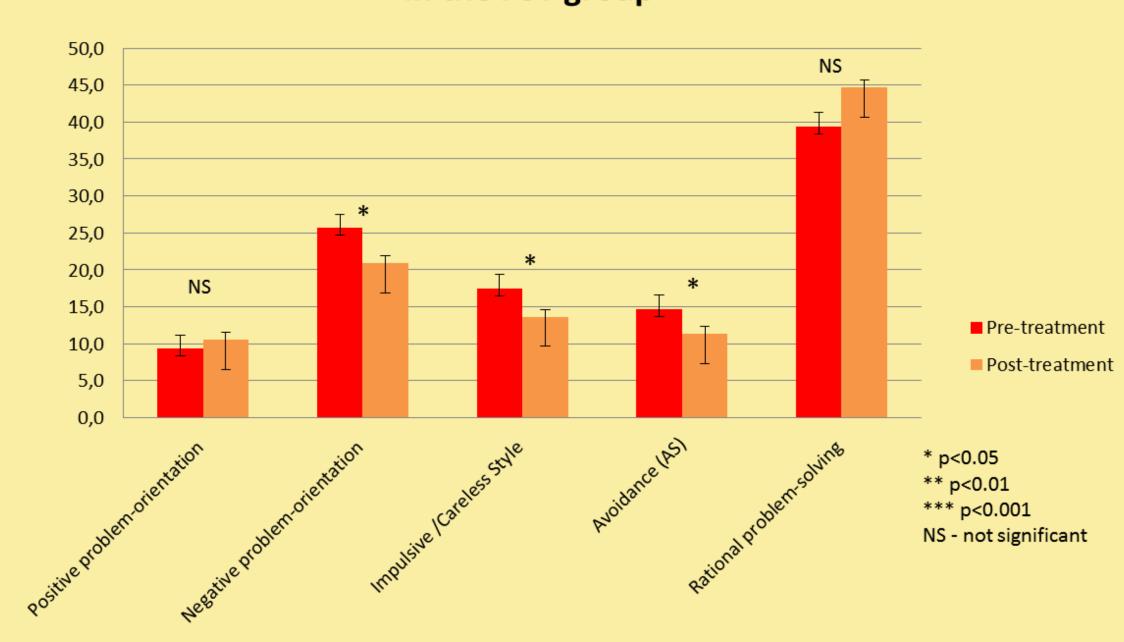


Table 2. Correlations of DAS with depression and hopelessness

MEASURE	DEPRESSION (BDI)	HOPELESSNESS (BHS)
	Pearson's r (Sign.)	Pearson's r (Sign.)
Depression (BDI)		.727** (.000)
DAS – Autonomy	.418** (.000)	.368** (.000)
DAS – Need for approval	.393** (.000)	.369** (.000)
DAS – Need for love	.289** (.001)	.328** (.000)
DAS – Need for achievement	.349** (.000)	.309** (.000)
DAS – Perfectionism	.317** (.000)	.290** (.001)
DAS – Entitlement	.132 (.141)	.100 (.270)
DAS – Omnipotence	.203* (.021)	.106 (.233)

## CONCLUSIONS

- The low level of problem solving skills is one of the main cognitive factors of suicide vulnerability.
- PST can be effective in the improvement of problem solving skills and can effectivelly contribute to the prevention of repeated suicide attemps by also decreasing depression and hopelessness.
- Problem solving training as an evidence based intervention should be used in suicide prevention.
- Long-term follow-ups are needed.



