



School based programs to prevent self-harm including suicide attempts

YELLOW REPORT | A SYSTEMATIC REVIEW

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Executive summary

Background

There is no international consensus on the definition of self-harm. This report uses the same definition as e.g. the National Institute for Clinical Excellence (NICE) where self-harm includes all forms of self-harm including suicide and suicide attempts. Self-harm in adolescence is common. International prevalence estimates vary depending on the criteria and definitions applied, ranging from 5% to 42%. Given that self-harm has deleterious effects and that many adolescents do not seek help for their problems, school based prevention programs may be seen as a possible strategy to address self-harm.

Objective

The aim of this systematic review was to examine the scientific evidence for school based self-harm prevention programs. Programs could be universal, selective, indicated or the preventive intervention could be a mix of programs directed at different prevention levels. Both positive and negative effects were assessed.

Method

The systematic review was conducted according to PRISMA guidelines. Controlled studies with or without randomisation published in English or Scandinavian languages in peer reviewed journals from 1990 could be included. Outcome measures were suicide, suicide attempts and other types of self-harm behavior. Studies measuring intentions or attitudes only were excluded. Effects had to be reported for a follow up of at least 10 weeks after the termination of the intervention. Only studies with low or moderate risk for bias were included in the evaluation of effects. The certainty of the evidence was assessed with GRADE. For assessment of negative effects no constraints on study design were applied.

Results

Three randomised and one controlled study with acceptable risk for bias could be included. They evaluated a total of seven different programs that all in-

vestigated effects on the number of suicide attempts. Two universal programs reduced the risk of suicide attempts: Good Behavior Game (GBG) and Youth Aware of Mental Health (YAM) (See Table 1). GBG is delivered in primary school for one to two years. It is not developed for the prevention of self-harm but aims to reinforce positive behaviors and attitudes among students and teachers. It demonstrated a protective effect against future suicide attempts over longitudinal follow-up. YAM is delivered in high school and mainly consists of five hours of interactive exercises. YAM is designed specifically to prevent suicide.

Two indicated programs: Counselors Care: Assess, Respond, Empower (C-CARE) and Coping and Support Training (CAST), and one selected; Skills for Life Program for Adolescents (SEL), were investigated in a relatively small study. Accordingly, no conclusions could be drawn on the effects. Two selected programs: Screening for Professionals (Prof Screen) and Question, persuade, Refer (QPR) showed no significant effect on self-harm in one large study. Three studies and one systematic review addressed negative effects of gate-keeper programs, screening interventions and the program Signs of Suicide. There was no evidence that the various interventions had a negative impact on the adolescents.

Consequences

This systematic review found only two programs, both universal, with evidence for a preventive effect for one form of self-harm (suicide attempts), that was evaluated at 10 week follow-up. Thus, there are several important research gaps that need to be filled. Existing programs ought to be evaluated for effects on other types of self-harm, and have longer term follow-up (ideally six months). Studies investigating new self-harm prevention programs at various levels of intervention (universal, selected, indicated) as well as programs that cover the entire range of prevention levels are needed. Future studies need to include systematic monitoring of potential adverse effects of program participation.

Conclusions

- ▶ There are two school-based programs, Good Behavior Game and Youth Aware of Mental Health that can possibly prevent suicide attempts. They have not been scientifically tested in Sweden. Both programs are universal, that is, directed to all students in the class. For other prevention programs, there is insufficient data to draw conclusions about the effect on suicide attempts.
- ▶ The evidence for programs to prevent self-harm other than suicide attempts is insufficient. Studies have mainly examined the effects with respect to attitudes and beliefs (rather than behavioural outcomes), or have lacked follow-up.
- ▶ It is not possible to draw any conclusions about the possible negative effects of school-based prevention programs as no relevant studies examined negative effects in depth.

Project group

Experts

Ata Ghaderi
Clara Hellner Gumpert
Sophie Liljedahl
Josef Milerad

SBU

Agneta Pettersson (Project Director)
Sara Fundell (Project Administrator until 2014-12-20)
Kickan Håkanson (Project Administrator from 2015-01-05)
Agneta Brolund (Information Specialist)

Scientific reviewers

Margda Waern
Anders Hjern

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www.sbu.se/en • registrator@sbu.se

Table 1 Summary of the results.

Program Prevention level	Effect (95 % CI) Number suicide attempts	Evidence
Good Behavior Game (GBG) Universal	RR 0.5 (0.3; 0.9) I: n=17 C: n=61	Low ⊕⊕○○
Youth Aware of Mental Health (YAM) Universal	OR 0.45 (0.24; 0.85) I: n=14 C: n=34	Moderate ⊕⊕⊕○

CI = Confidence interval; n = Number; OR = Odds ratio;
RR = Relative risk