A systematic review of psychosocial interventions for suicidal adolescents

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CRD summary
This review found that psychosocial interventions to prevent suicide in young people may not offer any additional benefit over usual care after the completion of the interventions. Poor reporting and clinical differences between include studies mean that the results should be interpreted with some caution and the reliability of the authors’ conclusions is unclear.

Authors’ objectives
To evaluate the effectiveness of psychosocial interventions for young people who have been identified as at risk of suicide

Searching
PubMed, PsycINFO, CINAHL, Dissertation Abstracts, and Academic Search Complete were searched up to spring 2010; search terms were not reported. Reference lists of previous reviews were checked for additional studies. There were no restrictions for publication status, but it was unclear if any language restrictions were applied.

Study selection
Experimental and controlled quasi-experimental studies of psychosocial interventions in young people aged 10 to 18 years who presented with suicidal thoughts or behaviours were eligible for inclusion. The studies were required to report outcomes on suicide and self-harm (including self-reported measures). Studies of primary and secondary prevention, evaluations of medication alone, and studies that did not stratify analyses when adults were included in the study sample were excluded.

The studies were conducted in Australia, the USA and the UK. The mean age of the included patients ranged from 12.9 to 16.1 years; most were Caucasian. The interventions incorporated a wide range of therapeutic approaches that were assessed across a range of settings. The duration of the interventions ranged from five days (or five sessions) to 18 months. The interventions were conducted in inpatient hospital settings, emergency departments, psychiatric in-patient units, academic sites, and outpatient settings. The outcome measures were self-reported plus standardised measures of suicidal events and self-harm. The control treatments were treatment as usual, including the administration of medication (where reported).

Two reviewers independently performed the study selection.

Assessment of study quality
Data were extracted on methodological characteristics for random generation of allocation, allocation concealment, avoidance of performance bias, attrition bias, detection bias, use of intention-to-treat analyses, and the use of standardised observation periods and validated outcome measurements.

Two students and the principal investigator performed the quality assessment; any disagreements were resolved by consensus.

Data extraction
Two researchers and the principal investigator extracted data to calculate Cohen's d-statistics and and odds ratios (OR) with 95% confidence intervals (CI) for the estimates. Any disagreements between the reviewers were resolved by discussion.

Methods of synthesis
Pooled odds ratios and 95% confidence intervals for the summary estimates were calculated using random-effects and fixed-effect models. Statistical heterogeneity was evaluated using the Q-statistic; a random-effects model was used where statistical heterogeneity was significant. The authors stated they evaluated the potential for publication bias using the visual appraisal of forest plots.
Results of the review
Seventeen studies (2,398 patients) were included in the review. Seven studies were quasi-experimental and 10 were experimental studies. The authors stated that six studies did not meet the indicators of methodological quality, although the results of the quality assessment were not reported in detail.

At the end of the intervention, the intervention group participants were less likely to be at a borderline significance level for suicidal or self-harm events than the control group participants (OR 1.492, 95% CI 1.001 to 2.224; six studies; 1,200 patients; Q=2.47, p=0.78, statistically significant heterogeneity).

There were no significant differences between intervention and control groups for suicidal and self-harm events at six to seven months follow-up or at 12 to 18 months follow-up.

Patients who received psychosocial interventions were less likely to report suicide ideation at post-test, at six to seven months follow-up, and at 12 to 18 months follow-up, although these trends were not statistically significant.

Visual appraisals of the forest plots showed no evidence of publication bias.

Authors’ conclusions
Current psychosocial interventions for suicide prevention in young people may not add benefits over usual care when assessed by suicidal, self-harm and suicide ideation events during follow-up periods after completion of the interventions.

CRD commentary
The review addressed a defined question. Some criteria for the inclusion of studies in the review were stipulated. Lack of clarity for the search dates and the lack of information about the study designs included and the comparators meant that the search may not be easily reproduced. Appropriate databases were searched. There were attempts to identify unpublished studies. It was unclear whether any language restrictions were applied to the search, which meant that there may be some risk of language bias. Steps were taken to minimise errors and bias at each stage of the review process.

Appropriate criteria were used to evaluate study quality. However, little information on the quality of the included studies was reported. There was a lack of information on the study designs included. The comparator treatments were not well defined. Pooling of the results may not have been appropriate because of the potential for biases in the results of uncontrolled studies and the lack of information on the quality of the studies. There was substantial clinical and methodological heterogeneity. The authors acknowledged the lack of studies with long term follow-up.

The results of the review should be interpreted with some caution and the reliability of the authors’ conclusions is unclear.

Implications of the review for practice and research
Practice: The authors stated that psychosocial programmes may be strengthened by adding a larger component addressing the prevention of suicidal events, and the provision of ‘booster’ sessions so that an intervention was offered over time and not just after an initial period after suicidal thoughts or attempts.

Research: The authors stated that further research in this area should include follow-up of at least 12 months.

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