A systematic review of psychological interventions for adolescents and young adults living with chronic illness

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CRD summary
This review found that skill-based psychological interventions may confer benefits in adolescents and young adults who live with chronic illness. The lack of a statistical synthesis in the review means that the clinical and statistical significance of the results is unclear. Some limitations in reporting means that the results and authors' conclusions may not be reliable.

Authors' objectives
To evaluate psychological interventions for adolescents and young adults living with chronic illnesses and establish the characteristics of effective interventions

Searching
MEDLINE, EMBASE, PsycINFO and CINAHL were searched for relevant peer-reviewed studies, limited to studies published in English and published from 1979 up to 2010; search terms were reported. Reference lists of the included studies, and the table of contents of key journals were checked to identify additional studies.

Study selection
Eligible for inclusion were comparative studies of psychosocial interventions in patients (aged between 10 to 30 years) with a chronic illness, where patients received treatment of curative and/or ongoing disease management which was the overall goal of medical treatment. Eligible interventions were to be specifically designed to affect change in at least one psychological element of living with chronic illness. Family interventions were included if outcomes for adolescents and young adults were reported separately. Studies of palliative care, and studies of patients with chronic pain, chronic fatigue syndrome, or HIV/AIDS were excluded.

The patients in the included studies received treatment for cancer, diabetes, juvenile idiopathic arthritis, cystic fibrosis, sickle cell disease, or asthma. Parents were involved with the interventions in some studies. Comparator groups included healthy adolescents and young adults; comparator treatments were usual care, historical controls, attention, and waiting lists. The duration of interventions ranged from one day to 12 months, with a maximum follow-up time of 12 months after the end of the intervention period.

Two reviewers performed the study selection; any discrepancies between reviewers were resolved by discussion.

Assessment of study quality
Methodological quality was assessed by two reviewers using criteria established by Jackson, Cheater and Reid including theoretical basis, methodology, statistical analysis and reporting. Any disagreements between reviewers were resolved by discussion.

Data extraction
Data were extracted by two independent reviewers for the interventions and outcomes, specifically whether or not an intervention had a statistically significant benefit for any outcome. Any disagreements were resolved by discussion.

Methods of synthesis
The results were summarised in a narrative review, reporting the number of studies with a statistically significant benefit on at least one outcome. The interventions were classified as either emotional/peer support, educational/psycho-educational programmes, or skills-based programmes.

Results of the review
Twenty-five studies were included in the review, comprising 19 randomised studies, five non-randomised studies and one partially randomised study. Sample sizes ranged from 12 to 375 patients. Methodological quality was found to be...
high, with quality scores ranging from 42.3 to 96.2%.

**Emotional/peer support interventions (four studies):** Three studies reported significant effects on at least one psychological measure. These studies included a mentoring programme, and two residential camps delivering peer support and education.

**Educational/psychoeducational interventions (eight studies):** Seven interventions showed small to very large effects on at least one outcome measure including coping, quality of life and symptoms of distress, areas of reproductive/sexual knowledge, health focus of control and paediatric coping measures. The interventions included psychosexual/reproductive health interventions and computer-mediated interventions. One multi-session counselling intervention showed no differences between groups.

**Skills-based interventions for adolescents and young adults alone (seven studies):** Four studies showed medium to large significant effects. The interventions included cognitive restructuring, problem solving, goal setting, coping strategies, and multi-session motivational interviewing programmes.

**Skill-based programmes with multi-familial/parent involvement (six studies):** Five studies achieved medium to large significant benefits in quality of life, parent-adolescent dimensions. The interventions used elements of behavioural systems therapy and utilised multi-family discussion formats.

Interventions that were more likely to achieve positive outcomes were those that taught communication skills, were at least three months in duration, and were delivered by a professional.

**Authors' conclusions**
Skill-based psychological interventions delivered over multiple sessions may give the most positive results in adolescents and young adults who live with chronic illness.

**CRD commentary**
The review addressed a clear question. Some criteria for the inclusion of studies were defined and reproducible, but the outcomes of interest were not stated. Appropriate databases were searched for studies, but the restriction of the review to published studies and studies published in English means that relevant studies may have been missed. Steps were taken to minimise reviewer error and bias at each stage of the review process.

Methodological quality was assessed. The reviewers stated that the quality of the included studies was generally high, but few details of the quality assessment were reported, which meant that it was difficult to make a judgement on the reliability of the results. In addition, the data from individual studies were not presented, and no statistical synthesis was reported. The authors only reported the numbers of interventions with statistically significant results.

Some limitations in reporting means that the results of the review should be interpreted with some caution and the authors' conclusions may not be reliable.

**Implications of the review for practice and research**

**Practice:** The authors did not state any implications for practice.

**Research:** The authors stated that future interventions should outline precise mechanisms by which proposed interventions may affect change in outcomes. They also stated that more research was required on web-based models, to determine the extent to which distress and adjustment measures are sensitive to change within different chronic illness populations, and to determine the optimal method of intervention delivery.

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