What works for adolescents with AN: a systematic review of psychosocial interventions

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CRD summary

The aim of this review was to carry out an assessment of randomised controlled trials in order to determine the effectiveness of psychosocial interventions for adolescents with anorexia nervosa. The authors were unable to make any clear recommendations, owing to the paucity of data and the methodological inadequacies of the primary studies.

Authors' objectives

To assess the effectiveness of psychosocial interventions for adolescents with anorexia nervosa (AN).

Searching

Searches for studies published pre-2004 were carried out in PubMed, ASSIA, CareData, the Cochrane Library, Web of Science, PsycINFO, EMBASE, CINAHL, the British Nursing Index and SIGLE; the search terms were reported. The reviewers also handsearched the International Journal of Eating Disorders, the British Review of Bulimia and Anorexia Nervosa, and the European Eating Disorders Review. The reference lists of retrieved articles were also examined for further studies. Attempts were made to locate unpublished data through searching the National Research Register and through contacting experts, national and international charities, and leading organisations in the field of eating disorders. It was not reported whether any language restrictions were applied.

Study selection

Study designs of evaluations included in the review

Only randomised controlled trials (RCTs) were eligible for inclusion in the review.

Specific interventions included in the review

Studies of any psychosocial intervention involving professional input, aimed at treating AN, were eligible for inclusion. The authors did not specify the control group against which the interventions should be compared. Psychosocial interventions were defined as therapies that focused on personal history, current behaviour or social circumstances and were not purely based on medical, somatic, drug-based or surgical therapies. The studies included in the review compared different types of psychosocial interventions with active controls, including different forms of family therapy, individual therapy, systematic desensitisation and relaxation. The interventions also involved different types of professional input such as input from medics, dieticians, physiotherapists, psychiatrists, social workers, nursing staff, family therapist and occupational therapists.

Participants included in the review

Studies of adolescents (aged 11 to 18 years) diagnosed with AN were eligible for inclusion. The studies had to provide details of the diagnosis and at least 50% of participants had to be within the age range specified by the review criteria. Where studies included patients with other eating disorders, such as bulimia and binge eating, the outcome data had to be reported separately for each group. The patients could or could not be receiving concurrent medical treatment for AN and could be treated as in-patients, daycare patients or out-patients. The studies in the review recruited mainly females, but two included both males and females. The mean length of time that the participants had suffered from AN varied, ranging from less than 12 months to 14.8 months. The mean age of the participants varied from 13.4 to 17.4 years; in one study 50% of the participants were not classified as adolescents.

Outcomes assessed in the review

Studies that primarily reported outcomes concerned with psychological and/or social progress were eligible for inclusion. Weight restoration was also considered.

How were decisions on the relevance of primary studies made?

The titles and abstracts of studies were screened for relevance by one reviewer; 20% were double-checked for inclusion by a second reviewer. Full paper copies of studies that appeared potentially relevant, and those where further information was required, were ordered.

Assessment of study quality

The authors did not state that they carried out a formal assessment of study validity. However, they did refer to methodological inadequacies when describing the studies and discussing the review's findings. In particular, they referred to the method of randomisation, concealment of allocation and completeness of follow-up in the 'Discussion' section of their review.

Data extraction

The authors did not specifically state how the data were extracted for the review, or how many reviewers performed the data extraction. However, study authors were contacted for further information and studies with duplicate publications were grouped together. The data were reported both in tables and short individual study narratives.

Methods of synthesis

How were the studies combined?

Each study was discussed separately. There was little attempt to synthesis the data.

How were differences between studies investigated?

Differences between the studies were mentioned within the individual study narratives.

Results of the review

Eight RCTs (n=217) were included in the review.

The studies included in the review were generally small and underpowered, and information on how the

studies were randomised and if allocation was concealed was lacking. Most studies also failed to follow up participants for an adequate period of time.

Psychosocial outcomes.

Outcome scales varied between the studies and individual study data were reported in the review. Overall, the outcomes appeared similar whether patients were seen as individuals or in a family group. However, two studies (n=40 and n=18) suggested that patients were more highly dissatisfied with life, and/or critical and did less well when family interventions, as compared with individual therapies, were employed. One study (n=26) found that in terms of psychosocial and physical outcomes, patients receiving family therapy did equally as well whether they took part in body awareness therapy or not. Another study (n=25) suggested that seeing one or more families together did not make any significant differences in the Childs Depression Inventory and the Brief Symptom Inventory. One small study (n=18) compared desensitisation therapy and relaxation training and found that the former appeared less effective when considering changes in the Goldfarb Fear of Fat Scale ($P<0.01$), the Rosenberg Self-Esteem Scale ($P<0.05$) and assessors global outcome assessment ($P<0.05$). One study (n=32) comparing videofeedback with no feedback found that significant improvements were made by the intervention group over the 6-week study period in verbalisation ($P<0.01$, $P<0.05$) and abnormal slowness during meals ($P<0.01$, $P<0.05$), as measured by the Eating Behaviour Rating Scale. However, when measured on a week-by-week basis, these between-group differences were not significant.

Weight.

Six studies reported significant increases in weight gain in both intervention and control groups, but failed to find any significant between-group differences. One study of 37 female patients comparing behavioural family systems therapy (BFST) with ego-orientated individual therapy (EOIT) reported that weight gain was significantly better for the BFST aim, as compared with the EOIT arm, when compared at the end of the treatment period ($P<0.001$) and after 1 year of follow-up ($P<0.02$). A second study of 21 patients showed that weight gain was significantly better ($P=0.01$) for patients received family therapy than for those receiving individual supportive therapy. However, this significant difference was not evident when patients were followed up 5 years later.

Authors' conclusions
Owing to the paucity and methodological inadequacies of the primary studies, no clear recommendations could be made.

CRD commentary
This review was based on clear inclusion criteria. A thorough search for both published and unpublished data appears to have been carried out, which suggests that the authors have located all of the relevant data, although it was unclear whether any language restrictions were applied. The method used to select the studies may be subject to bias since only a limited number of decisions were double-checked by a second reviewer. In addition, the authors did not state how the data were extracted, which makes it difficult to judge whether appropriate steps were taken to reduce errors in this process. What is not clear is whether the quality of the included studies was appropriately assessed. The authors discussed the validity of the studies, but individual study details were not provided. Hence, it is unclear whether a formal assessment was carried out. If such an assessment was carried out, the authors should report how decisions were made and how many reviewers were involved, in order to reassure the reader of the robustness of the assessment.

The authors could have made more attempts to synthesise their data as the studies were discussed separately. However, any such synthesis is going to be limited given the apparent heterogeneity between studies in terms of the interventions, study design, outcomes and participants. Clearer data tables could perhaps have made it easier to compare any similarities and differences across the studies. Overall, given the paucity and quality of the data, the authors are justified in not making any recommendations for practice from their review; their suggestions for further research appear reasonable.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that more high-quality research in the form of large RCTs examining a range of relevant interventions (e.g. cognitive-behavioural therapy, desensitisation and relaxation training) is required.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.