Is it time to review NICE guidelines on family therapy for anorexia in young people?[†]

ROUND THE CORNER

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SUMMARY

Family therapy is recommended by the National Institute for Health and Care Excellence (NICE) for the management of anorexia nervosa in children and young people, but there is limited evidence to back this recommendation. The Cochrane Review under consideration evaluates the efficacy of different family therapy approaches compared with other treatments for anorexia nervosa, and this commentary puts the findings into clinical perspective.

KEYWORDS

Anorexia nervosa; group psychotherapy; family therapy.

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First received 5 Dec 2019
Accepted 24 Feb 2020

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[†]Commentary on… Family therapy approaches for anorexia nervosa: a Cochrane Review. See this issue.

Anorexia nervosa is a severe psychiatric condition that affects all ages. For young people (aged 10–21) evidence points towards the benefit of family therapy but for the adult population no specific approach has been shown to be superior (Watson 2013). The National Institute for Health and Care Excellence (NICE) recommends the use of anorexia-nervosa-focused (anorexia-focused) family therapy with children and young people, whereas adults should be offered either anorexia-focused cognitive–behavioural therapy, the Maudsley Anorexia Nervosa Treatment for Adults (MANTRA – individual therapy that helps people understand and address a range of issues keeping them attached to anorexia nervosa (Schmidt 2006)) or specialist supportive clinical management (NICE 2017).

The Cochrane Review

The clinical question

The Cochrane Review by Fisher *et al* (2019) aimed to assess the efficacy of different family therapy approaches compared with other treatments for anorexia nervosa, by investigating whether family therapy reduces rates of anorexia nervosa or associated symptoms. This review was an update of an earlier Cochrane Review (Fisher 2010), which suggested, from limited evidence with potential bias problems, that family therapy may be more effective than treatment as usual in the short term. There was insufficient evidence to conclude that family therapy was more effective than other types of psychological intervention. This update provided more current literature (from up to 2008 in the previous review to 2016 in the current one) and amended search methods.

Method

'Family therapy approaches' included a wide range of approaches from different theories, but all involving the family in treatment. The following approaches were considered: (a) structural family therapy; (b) systems family therapy; (c) strategic family therapy; (d) family-based therapy and its variants and behavioural family systems therapy; and (e) other unstructured approaches that use family involvement. The grouping together of family-based therapy with behavioural family systems therapy was explained as being due to similarity of approach, which is appropriate given the aims of achieving weight restoration then maintenance, appropriate identity and individuation, all with parents being suitably coached.

The following control conditions were compared with family therapy: (a) standard care/treatment as usual (Box 1) (the review did not define standard care/treatment as usual, and doing so would have provided better understanding of what exactly was being compared); (b) medications; (c) educational interventions; (d) other structured psychological interventions; and (e) alternative or complementary interventions. The addition of a family therapy approach to a treatment was also considered. The review used sensitivity analysis to assess the risk of bias from allocation concealment, masking ('blinding') and incomplete outcome data. Sensitivity analysis to assess the potential influence of confounding on causal conclusions was not carried out, although it would have been desirable.

Both published and unpublished randomised controlled trials (RCTs) that compared family therapy approaches with either other types of family

https://doi.org/10.1192/bja.2020.14 Published online by Cambridge University Press

BOX 1 Standard care/treatment as usual

Standard care/treatment as usual is the routine care that the patient would be receiving and is often used as a control with which a new treatment is compared in randomised controlled trials (RCTs). The standard care should be clearly defined, as a number of interventions might be possible and they can differ substantially depending on the location's practice.

BOX 2 Remission

Remission is the relief of symptoms and the optimal outcome of treatment. It is used to measure clinical response in trials and is assessed by means of measurement tools and cut-offs. Participants in remission may still have residual or minor symptoms. Reviews benefit from a narrow definition of clinical outcome that can be appropriately compared, hence remission is favoured (over 'response', which has a broader definition of a lesser degree of symptomatic relief), with defined measurement tools and cut-offs.

therapy or other treatments were selected for this review, and participants of any age and gender with a primary diagnosis of anorexia nervosa were included.

Multiple electronic databases were searched and reference lists were checked. Update searches were carried out on the 2010 review's database searches, and the addition of more databases, even including ones to identify PhD theses, made it a more thorough search.

Four review authors selected and extracted data from the studies, and two independently assessed the risks of bias for each of the included trials using the approach described in the *Cochrane Handbook for Systematic Reviews of Interventions* (Higgins 2011): six questions were used to grade the studies on their risk of bias, and one author attempted to obtain further information from the trial authors if the criteria were scored as unclear. This method to reduce the unclear risk of bias as much as possible is a valuable attempt for a more appropriate grading of the quality of the studies.

The main comparisons were: (a) family therapy approaches versus standard care/treatment as usual; (b) family therapy approaches versus psychological interventions; (c) family therapy approaches versus educational interventions; and (d) a family therapy approach versus another type of family therapy approach. The primary outcomes were remission (Box 2) and all-cause mortality. The secondary outcomes were family functioning, general functioning, treatment drop-out, eating disorder psychopathology, weight and relapse.

Results

Twenty-five trials were included in the qualitative review (13 of them already present in the 2010 review), showing the increase in interest in the field over the 6 years from 2010 to 2016. Only 21 could be quantitatively meta-analysed, as 4 studies did not provide useable data for analysis. Sixteen trials were in adolescents, 8 in adults (7 of these in young adults up to 26 years old), and 1 included adolescents, young adults and adults. Although no evidence was presented on this, the focus on youth may be theoretically explained by family involvement being deemed greater than in adults, and therefore family therapy more beneficial. Cluster-RCTs (Box 3) and cross-over trials would have been included, but none were found in the search. It would be impossible to prevent the carry-over effects from psychological therapy work in cross-over trials.

Low-quality evidence (2 trials, $n = 81$) suggested that family therapy approaches offer advantage over standard care/treatment as usual on rates of remission following intervention (RR = 3.50, 95% CI 1.49–8.23), but at follow-up low-quality evidence highlighted that this effect was not maintained. Only 1 trial, with 41 participants, looked into this effect after 12+ months, downgrading the evidence because of imprecision; it found no difference in rates of remission, and the confidence interval was very wide (RR = 6.09, 95% CI 0.33–110.84). The few participants (41) would have widened the confidence interval around the effect size, as the influence of each value in a small trial is more significant. The evidence was further downgraded because of high risk of performance bias and detection bias, and discrepancy in numbers reported in the drop-out category.

Very low-quality evidence made it difficult to determine whether family therapy was better than educational interventions for remission at long-term follow-up (1 trial, $n = 30$) (RR = 9.00, 95% CI 0.53–153.79) or psychological interventions post-intervention (5 trials, $n = 252$) (RR = 1.22, 95% CI 0.89–1.67). Similar to the comparison with standard care/treatment as usual, the effect when family therapy was compared with educational interventions had a very wide confidence interval (again due to few participants), and the inconsistency from this downgraded the evidence. The evidence was further downgraded because of imprecision arising from this, and because the trial had unclear risk of selection bias.

https://doi.org/10.1192/bja.2020.14 Published online by Cambridge University Press

BOX 3 Cluster-randomised controlled trials

A cluster-randomised controlled trial (also known as a group-randomised trial or cluster-randomised trial) is a type of randomised controlled trial in which groups of participants instead of individual participants are randomly allocated to treatment arms.

Some evidence (4 trials, $n = 210$) suggested that family therapy was more beneficial than other psychological interventions for weight gain following intervention (standard mean difference 0.32, 95% CI 0.01–0.63). There was insufficient evidence overall for differences in most of the other primary and secondary outcomes to be determined.

Discussion

Implications for NICE guidelines

Overall the review did not clearly show family therapy to be more beneficial than standard care/treatment as usual or other interventions. The main limitation was the low quantity and low quality of evidence from the trials, which prevented good-quality analysis being carried out. Given that the NICE guidelines recommend anorexia-focused family therapy for children and young people, it seems that this recommendation be reviewed as family therapy does not show a clear advantage according to these findings. (For adults, family therapy is not among the NICE recommendations and this should stay unchanged until further evidence shows a benefit.)

The review put forward a succinct question, with a clearly defined population of participants of any age with a primary diagnosis of anorexia nervosa, and five different family therapy approaches on which four main comparisons were undertaken. The primary and secondary outcomes were clearly defined, and the search strategy was noticeably comprehensive.

Review method

Random-effects meta-analysis was appropriately used to allow for the underlying heterogeneity, but it should be noted that there was considerable risk of bias in the trials and this model of meta-analysis may exacerbate this. As many of the comparison analyses used trials few in number and with few participants, this limited the amount of data and specificity. It was also not possible to compare trials of family therapy approaches derived from different theories against standard care/treatment as usual, psychological or educational interventions owing to lack of specificity in the theoretical underpinning of the family therapy approaches.

Statistical heterogeneity was appropriately assessed and, if deemed present, the review attempted to carry out specified subgroup and sensitivity analyses. However, the review states that this was often not possible owing to the paucity of trials.

'Remission' was defined differently across the trials and was reported in only 15 of the 25 trials at the end of treatment and in 14 at follow-up. This was a primary outcome and this heterogeneity affected the comparisons. There were also limited data available for the primary outcome of mortality, not reported in 7 of 12 comparisons, and often not adequately reported. Only 2 trials reported usable data for patient functioning, which would be an important outcome measure that is clinically useful.

Generalisability

It would be difficult to generalise the findings of the studies and the review (Box 4). Most participants were from out-patient settings, and therefore more stable. Participants with comorbidities such as other psychiatric disorders or suicide risk were often excluded, whereas these comorbidities are very common in the clinical setting. It would be interesting to include these participants to get a more generalisable outcome and, if possible, even split the data into subgroups of comorbidities. Most participants were male, and most were in the adolescent age range. It would be useful to get more data on all ages, as well as more on females (especially given that the gender ratio of anorexia nervosa in adults is approximately 1:8 male:female (Steinhausen 2015)).

Cost-effectiveness was not determined in this review, which would be useful for applicability to the clinical setting. This would be especially useful given that the NICE guidelines recommend family therapy for anorexia nervosa in children and young people.

BOX 4 Generalisability

Generalisability (also known as applicability or external validity) is how much the findings of a study can be applied to other settings, and how much the findings reflect the true state of affairs outside the study's own settings.

Risks of bias

There was overall a general inadequacy in reporting of aspects of risks of bias across the trials, making it difficult to determine the effect of bias on treatment. This was particularly seen in inadequate concealment. Masking was difficult to achieve, given the

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BOX 5 Language bias

Trials are more likely to be published in an international journal in the English language if the findings were 'positive' and the intervention deemed 'to work'. Some reviews also favour trials in the English language and may limit their search to exclude other languages. This causes language bias, and review analyses should be including all relevant trials whatever their language and outcome to make valid conclusions.

nature of therapy in which participants need to engage in psychological work, and difficult when self-reported outcome measures are used. Masking was also unclear in clinician-assessed outcomes, with only five trials clearly reporting the outcome assessors' masking. Overall there appeared to be considerable risks of bias.

As three of the trials were not in English, different colleagues who spoke the relevant languages were recruited to extract data. This may have affected the data quality, but would have reduced language bias in the review (Box 5). Extra data were acquired from personal communication with authors. The review may therefore underrepresent the level of reporting bias in the published trials.

Conclusions

This review (Fisher 2019) was an update of the original version (Fisher 2010) that increased the number of included studies from 13 to 25 and the number of comparison analyses from 6 to 12. This meant that there was a large spread of analyses rather than a strengthening of evidence in the major comparisons.

It is doubtful that this review will affect UK clinical practice owing to the limited quality and quantity of data available from which to draw constructive conclusions about family therapy in anorexia nervosa. The data from the trials were of low quality, and the analyses and outcomes were of overall low quality. Although interest in the field has clearly increased since the 2010 review, there are still inadequate trial numbers to provide greater accuracy. A few suggestions for future updates were tentatively put forward, such as assessing the efficacy of family therapy approaches in adults separately (more trials and comparisons involving adult participants would be useful for the clinical context) and assessing any differences in treatment effect depending on how long participants had met anorexia nervosa criteria.

Declaration of interest

None.

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https://doi.org/10.1192/bja.2020.14 Published online by Cambridge University Press