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Does Collaborative Case Conceptualisation enhance engagement and outcome in the treatment of anorexia nervosa? Rational, design and methods

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ABSTRACT

Background: Anorexia Nervosa (AN) is a severe and potentially chronic disorder characterised by low body weight and persistent behaviours that interfere with weight gain. Individuals with AN are often difficult to engage in treatment and display high rates of drop out. The Collaborative Case Conceptualisation (CCC) assessment approach was developed to target proposed AN maintaining factors with the aim of improving treatment motivation and engagement and consequently treatment outcomes in individuals with AN. The proposed study aims to examine the efficacy of CCC in improving a range of outcomes including Body Mass Index, eating disorder symptomatology, general psychopathology, quality of life and future treatment motivation and participation. Potential mediators will also be explored.

Methods/design: Thirty-two participants will be recruited from Melbourne based specialist eating disorder services, community and university clinics, and health practitioner networks. Participants will be randomised to three individual sessions of either CCC or a standardised assessment condition (assessment as usual; AAU). The AAU assessment will include; a mental status examination, assessment of current disordered eating behaviours and cognitions, assessment of clinical history, and a physical examination. The CCC condition combines the AAU assessment components with shared collaborative formulation and tailored psychoeducation highlighting the consequences of the eating disorder on wellbeing and future goals in a supportive and motivating way.

Implications: This intervention may provide an effective and feasible method of improving treatment engagement and outcomes for individuals suffering from AN, with the ultimate outcome of reducing the negative biopsychosocial impacts of this potentially severe and chronic disorder.

1. Introduction

Prevalence rates of anorexia nervosa (AN) have been estimated to range between 0.2% to 4.3% [50]. Whilst 70% of sufferers recover in the first few years of the disorder in the others it becomes a chronic disorder [38]. Further, the risk of premature death for individuals with AN is estimated to be 6 to 12 times higher than the general population [1]. AN comprises two subtypes, Restrictive type (AN-R) which involves extreme weight loss and emaciation due to self-starvation and Binge/Purge Type (AN-B/P) whereby an individual also engages in binge-eating or purging behaviours [2]. To date treatments for adults suffering from AN have demonstrated limited success [5]. Given this, and the potential chronicity and extreme negative consequences of the disorder, there is a dire need for effective evidence-based treatments [25]. The Cochrane review of treatments for adult AN [24] identified only seven (two included children and adolescents) randomised controlled trials. Although the authors concluded that overall psychotherapy was more effective than no treatment or treatment as usual, with no consistent differences between type of psychotherapy, they noted that interpretations were limited by small sample sizes and insufficient replication [24]. A further limitation of studies examining treatments for AN are the high rates of drop out with a recent systematic review reporting dropout rates for the majority of psychotherapy studies for AN ranging in between 20% and 40% [13]. Sine the Cochrane review of treatments for adult AN by Hay et al. [24], there has been an increasing number of studies examining the efficacy of psychological treatment for severe and enduring AN (e.g., [41,51]).

One recent well designed randomised controlled trial compared two psychological interventions shown to be efficacious for the treatment of bulimia nervosa (BN), cognitive behaviour therapy (CBT) and

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interpersonal therapy (IPT), to non-specific supportive clinical management (SCM; initially intended as control condition) for the treatment of AN [34]. Participants comprised fifty-six women with a diagnosis of AN randomised to one of the three conditions (CBT- $n = 19$; ITP- $n = 21$; SCM- $n = 16$). Contrary to expectations, SCM demonstrated better post-treatment outcomes (as defined by increased weight and decreased eating disorder symptomology and psychopathology) than either CBT or IPT [34]. However, there were no significant differences between groups at follow-up (average 6.7 years; [10]). These results suggest that treatments with demonstrated efficacy in the treatment of other eating disorders (e.g., BN) may achieve outcomes similar to that of SCM in those with AN.

It is argued that CBT and IPT are not effective in the treatment of AN because they were developed for the treatment of other eating disorders and therefore assume that the disorder is maintained primarily by weight/shape concerns or interpersonal concerns respectively. Consequently they do not adequately consider the complexity of maintaining factors or the egosyntonic nature of AN [45]. Given that AN does not appear to be solely/primarily driven by weight and shape concerns [45], there is a need to develop more effective interventions for AN that address additional maintaining factors of the disorder [45].

2. Maudsley model of treatment for adults with anorexia nervosa (MANTRA) model

Schmidt, Treasure and colleagues [44,45,52] argue that, in contrast to other eating disorders AN is driven by 'motivated eating restraint' (with weight/shape concerns as only one of many potential motivators for restrained eating). Thus they suggest an alternate maintenance model of AN to inform intervention development [45]. Their Maudsley Model of Treatment for Adults with Anorexia Nervosa (MANTRA) proposes that, in those who are vulnerable due to avoidant and/or obsessive compulsive personality traits and unknown biological factors, AN symptoms are maintained by intrapersonal and interpersonal factors with the four primary maintaining factors including; perfectionism/cognitive rigidity, experiential avoidance, pro-anorectic beliefs and response of close others. A diagram of the MANTRA proposed risk and maintaining factors is presented in Fig. 1. Schmidt and Treasure argue that, if the model is correct, treatment based on the model should result in improved treatment outcomes for AN [45].

To date two studies have been conducted examining the efficacy of MANTRA by comparing the treatment modality to Specialist Supportive Clinical Management (SSCM; [42,43]). Results of both studies indicated there was significant improvements in BMI, eating disorder symptomology and clinical impairment at 6 and 12 month follow-up and there were no differences between groups. Although there were not differences between groups on primary outcome measures, additional process evaluation studies have suggested that MANTRA is perceived as a helpful therapy by both therapists [29] and patients [54], and therefore exploration of additional treatments based on maintaining factors of AN is an important avenue for future research.

Although MANTRA provides a much needed treatment option for adults suffering from AN, given the length (20 sessions) and highly specialised nature of the programme, this treatment will require significant resources and training of clinicians. Previous research has found complex intensive treatments are not always readily disseminated, regardless of their efficacy they [48,53]. As such, additional effective treatment options that can be more easily embedded into current service models are also needed.

3. Collaborative Case Conceptualisation (CCC)

Collaborative Case Conceptualisation (CCC; [39]) is a 3-session assessment approach based on the MANTRA model [44,45,52] and incorporating principles of motivational interviewing [33]. CCC is designed as a prelude to traditional treatment with the aim of improving treatment motivation and engagement in the short term and treatment outcomes in the longer term. This approach targets the factors articulated in the MANTRA model, namely obsessive-compulsive and perfectionistic behaviours and cognitions, avoidant behaviours and cognitions, positive beliefs about anorexia nervosa and responses of close others. CCC is conducted jointly with the patient and encompassing psychoeducation, motivational techniques, learning principals, and Socratic questioning. A shared understanding is developed regarding the symptoms and maintaining factors of the eating disorder. This process then informs collaborative treatment goal setting and a formulation letter is written for both the patient and the external treating team. The efficacy of CCC in ameliorating eating disorder symptomatology and maintaining factors of the disorder, and enhancing future treatment motivation, engagement and outcome has not yet been established.

CCC may provide an effective, acceptable and cost-effective option for improving treatment engagement and outcome that can be embedded into existing service models. The primary aim of the proposed study is to examine the efficacy of the MANTRA based CCC in improving weight and eating disorder symptomatology 12-months post assessment relative to a standard assessment (Assessment As Usual; AAU) for adults with AN. The secondary aims of this study are to examine the impact of CCC in improving weight and eating disorder pathology, treatment motivation and participation as well as self-reported eating disorder psychopathology, general psychopathology and quality of life at post-assessment and at 12-month follow-up. This study will also examine potential mediators of the effect of CCC (i.e., obsessive-compulsive and perfectionistic behaviours and cognitions, pro-anoretic beliefs and social support).

4. Methods

4.1. Study design

The study will be a randomised controlled trial conducted according to CONSORT guidelines [35,46] and registered with the Australian and New Zealand clinical trials registry. Researchers who randomise participants, administer evaluations and undertake statistical analyses will be blind to participant conditions.

A flow-chart outlining the study design is presented in Fig. 2. Once a potential participant is identified, they will be screened via phone to assess their eligibility for the study. If eligible, participants will undergo a medical assessment with a specialist eating disorders service medical practitioner. Participants will then complete the pre-questionnaire and semi-structured interview (Eating Disorder Examination [EDE; [17]] and Mini International Neuropsychiatric Interview [49]) before being randomised to either the CCC or AAU condition. The participant's General Practitioner will be sent a letter informing them of involvement in the study.

On completion of the three intervention sessions, a formulation letter and treatment plan will be sent to the participant, their General Practitioner, and their treating team (see section on assessment conditions for details of letters). Participants will repeat the questionnaire package and EDE on completion of the three intervention sessions and at 12-month (post-baseline) follow-up.

4.2. Participant recruitment and eligibility screening

Participants will be recruited from several Melbourne based eating disorders services, community health centres, university counselling clinics, and health practitioner networks (e.g., General Practitioner networks, eating disorder service area coordinators). The study will also be advertised in local newspapers and on eating disorder advocacy websites. Eligibility screening will be conducted via phone. Inclusion criteria will include; (1) current diagnosis of