

Summary Australian and New Zealand clinical practice guideline for the management of anorexia nervosa (2003)

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Objective: To provide a summary of the Royal Australian and New Zealand College of Psychiatrists (RANZCP) Clinical Practice Guideline for the Management of Anorexia Nervosa (AN).

Conclusions: Anorexia nervosa affects only a small proportion of the Australian and New Zealand population but it is important because it is a serious and potentially life-threatening illness. Sufferers often struggle with AN for many years, if not for life, and the damage done to their minds and bodies may be irreversible. Anorexia nervosa is characterized by a deliberate loss of weight and refusal to eat. Overactivity is common. Approximately 50% of patients also use unhealthy purging and vomiting behaviours to lose weight. There are two main areas of physical interest: the undernutrition and malnutrition of the illness and the various detrimental weight-losing behaviours themselves. Basic psychopathology ranges from an over-valued idea of high salience concerning body shape through to total preoccupation and eventually to firmly held ideas that resemble delusions. Comorbid features are frequent, especially depression and obsessionality. It is inadvisable in clinical practice to apply too strict a definition of AN because to do so excludes patients in the early stage of the illness in whom prompt intervention is most likely to be effective. The best treatment appears to be multidimensional/multidisciplinary care, using a range of settings as required. Obviously, the medical manifestations of the illness need to be addressed and any physical harm halted and reversed. It is difficult to draw conclusions about the efficacy of further treatments. There is a paucity of clinical trials, and their quality is poor. Furthermore, the stimuli for developing AN are varied, and the psychotherapy options to address these problems need to be tailored to suit the individual patient. Because there is no known 'chemical imbalance' that causes the illness, no one drug offers relief. There is a high rate of relapse, and some patients are unable to recover fully. Because AN is a psychiatric illness, a psychiatrist should always be involved in its treatment. All psychiatrists should be capable of assuming this responsibility. Because cognitive behavioural methods are generally accepted as the best mode of therapy, a clinical psychologist should also be involved in treatment. Because medical manifestations are important, someone competent in general medicine should always be consulted. The optimal approach is multidisciplinary or at least multiskilled, with important contributions from psychologists, general practitioners, psychiatric nurses, paediatricians, dietitians and social workers.

Key words: chronicity, depression, malnutrition, obsessionality, purging.

INTRODUCTION

Proposing clinical practice guidelines (CPGs) for anorexia nervosa (AN) poses several particular problems in addition to those encountered with other clinical guidelines: definitions; the multidisciplinary approach required for optimal treatment; the persistence of

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illness from childhood and adolescence well into adult life; the severity of the illness; and the paucity of controlled randomized studies from which to make recommendations. Notwithstanding the inevitable limitations of CPGs, this document provides an overview of the available evidence to guide clinical practice planning.

Definitions

Anorexia nervosa is an eating, or perhaps better, dieting disorder, and needs to be distinguished from disordered eating, such as that contributing to obesity or part of unusual syndromes such as pica or ruminative disorder. Anorexia nervosa, bulimia nervosa (BN) and atypical eating disorders not otherwise specified (EDNOS) are psychiatric illnesses recognized as part of a special category in *Diagnostic and Statistical Manual of Mental Disorders* (4th edn; DSM-IV) and *International Statistical Classification of Diseases and Health-related Problems* (10th edn; ICD-10). Our commission from the College was to deal with AN, and specifically exclude BN, presumably because there are excellent reviews of the latter disorder, particularly that of Fairburn and Wilson (in the book *A Guide To Treatments That Work*). But EDNOS is rather different. Many EDNOS patients have binge eating disorder (as yet poorly understood) or disorders that are secondary to other psychiatric illnesses (e.g. depression), or have unusual and perhaps bizarre conditions, which are unique, hence are not relevant to this document. However, a large number of EDNOS patients are those in the process of developing AN, or those in whom the illness is in partial remission. Obviously both these groups need to be included.

Overview of the clinical epidemiology

Eating disorders are a group of common illnesses that impose a considerable burden on health care. Although AN is a low-prevalence disorder (lifetime risk 0.2–0.5% of women, approx. half that of schizophrenia), it is a very serious condition, with a mortality rate higher than any other psychiatric illness and a suicide rate higher than that of major depression. Its seriousness is often not appreciated.

GENERAL MANAGEMENT ISSUES

There is general consensus that a multiskilled and multidisciplinary approach is optimal utilizing cognitive, behavioural, and motivational enhancement therapies (psychologists), nutritional supervision and counselling (dietitians), family and individual therapy (psychotherapists), skilled nursing care, and adequately trained family doctors (and in some circumstances, paediatricians and physicians). However, despite the multidimensional facets of AN's presentation that often leads to it being an 'orphan' condition with no discipline taking responsibility, AN is primarily a psychiatric illness, and every psychiatrist should be capable of treating AN and of involving

other health professionals to provide optimal care. The principal therapist may well be a clinical psychologist, paediatrician, general practitioner or dietician. Further, too often AN is considered to be only an adolescent disorder. In fact it often starts prior to puberty and persists through adolescence into adult life (average duration approx. 5 years). There are invariably problems of transition as the patient develops (or fails to develop) from adolescence to maturity. Anorexia nervosa frequently becomes chronic or leads to premature death.

CURRENT TREATMENT EVIDENCE

The purpose of this section is not to promote unconditionally the concept of 'best' treatment, or to preclude treatments for which there are no randomized controlled trials (RCTs). 'Insufficient evidence' for treatments is not the same as 'no evidence' or 'evidence of ineffectiveness', and established clinical consensus opinions are valid in the absence of other levels of evidence. Unless otherwise specified, studies cited here are at least from level [II] evidence, applying the National Health and Medical Research Council (NHMRC) criteria.

Inpatient versus outpatient or day-patient treatment of the underweight patient

For those patients in whom the illness is severe enough to consider inpatient care but not severe enough for this to be essential, comprehensive outpatient or day-patient treatment has been found to be at least as effective, if not more so. Outpatient treatment is considerably cheaper, less intrusive, and has greater adherence, hence is to be preferred. The benefits of both forms of treatment appear to increase over time. Inpatient care is mandatory at times of acute medical crisis, rapid weight loss or physical deterioration.

Family therapy versus individual therapy or no specific therapy

In the stage of weight restoration

Family therapy was found to be no more effective than individual therapy: In 37 adolescents (11–20 years) with DSM-III-R-defined anorexia nervosa, who all received common medical treatment and dietary advice, behavioural family systems therapy was found to be associated with greater weight gain and more frequent resumption of menses than ego-orientated individual therapy. However, there was no difference in attenuation of eating disorder attitudes, depression or family conflict.

Two studies compared outpatient individual and family psychotherapy to outpatient group psychotherapy, inpatient treatment (one study), and assessment only or 'routine care' for new adult referrals to a specialist unit. There was significantly better weight maintenance and psychological and social

adjustment at 2 years in the psychotherapy groups. Poor prognosis was associated with prior low weight, treatment non-compliance and self-induced vomiting. Those in the assessment-only group had the least weight gain.

Family therapy versus individual supportive therapy in the prevention of relapse

Family therapy is directed to global family functioning while counselling is restricted to empowering family members to assume responsibility for the patient's behaviour. Family therapy appears favourable for adolescent patients with early onset and short history of AN, while those patients with late-onset anorexia appear to do better with individual supportive therapy.

Family therapy versus family counselling

Outcomes of a pilot trial in this topic suggest that both therapies are equally effective. There was a trend towards better improvement in the separated family therapy group (76% good/intermediate global outcome ratings) compared to the conjoint therapy group (47% good/intermediate outcome).

Pharmacotherapy

Cisapride

One inpatient study found that there were no variances in weight gain for patients prescribed cisapride versus placebo but other differences were found, namely subjects with cisapride were hungrier and showed more subjective improvement. However, findings from a study conducted on outpatients were suggestive of improved weight gain and accelerated gastric emptying in treated versus placebo group. Of note, though, are the problems with cardiac side-effects (serious cardiac arrhythmias) of cisapride, which have led to its limitation in Australia to use for gastroparesis under a consultant physician's authority only. Hence it is no longer used for AN.

Antidepressants

In one published study of fluoxetine (up to 60 mg day⁻¹, mean: 56.0 mg) as augmentation therapy there was no evidence of a beneficial effect on the outcome measure of weight gain, symptom severity scores, depression or general psychiatric symptoms. In a placebo-controlled RCT of 5 weeks of amitriptyline (mean dose: 115 mg day⁻¹) all patients did poorly. A 1995 study on the use of either nortriptyline (n = 7, 75 mg day⁻¹) or fluoxetine (n = 15, 60 mg day⁻¹) in addition to psychological therapies (nutritional counselling and cognitive-behavioural therapy), found that weight gain and anxiety reduction were greater in the nortriptyline group and that there were no between-group differences in eating disorder or depressive symptom severity. Small numbers limit conclusions. A further study by the same authors investigating fluoxetine (60 mg day⁻¹) or amineptine

(300 mg day⁻¹) found no significant differences between groups although weight gain appeared better in the fluoxetine group. This finding is supported by another trial.

Clomipramine

A 16-patient study on the effect of 50 mg daily of clomipramine to a placebo over 8 weeks found there was little effect on ultimate outcome. Clomipramine leads to increased hunger, appetite and energy intake and there was a suggestion of better weight maintenance at follow up. Caveats include the small numbers and relatively low dose of clomipramine.

Growth hormone

Growth hormone (0.05 mg kg⁻²day) therapy to hasten medical stabilization in patients undergoing re-feeding has been evaluated. The growth hormone group had shorter hospital stay (not significant) and reached a stable state with respect to cardiovascular function (absence of orthostasis by pulse) in a shorter time (p < 0.02). There was no difference in rates of weight gain.

Cyproheptadine

A number of studies have looked at the effect of daily doses of cyproheptadine on weight gain. The conclusions from these trials suggest that the medication may have an effect for non-bulimic patients, in terms of weight gain and in some psychological measures (e.g. attenuating the thin ideal). However, there were reported problems of hypersomnia, and stomatitis and hypersomnia led to the withdrawal of patients from a couple of the trials.

Zinc supplementation

The use of zinc supplementation (100 mg daily of zinc gluconate) to increase rate of weight gain has been supported by two trials.

Clonidine

A 1987 trial found no effect for clonidine in a RCT of four treatment-resistant inpatients. Low participation numbers limit conclusions.

Anti-psychotics

Pimozide has been found to enhance weight gain in a study of 18 inpatients on a behavioural programme. Conclusions cannot be drawn on the use of sulpiride because of the possibility of a type II error in the trial concerning this drug. There have been several enthusiastic anecdotal reports of the efficacy of olanzapine in respect to weight gain and reversing anorexic cognitions, but no RCT as yet.

Lithium

A 4-week crossover placebo controlled trial in 16 inpatients (aged 12–32, mean: 19.8 years) on a specialist behaviour programme reported minimal adverse effects, and greater weight gain in weeks

3 and 4 in the lithium group. The mean plasma lithium level was 1.0 ± 0.1 mEq/L.

Cannabis

α^9 THC α -9-tetrahydrocannabinol (7.5 – 30 mg day⁻¹) compared to diazepam (3 – 15 mg day⁻¹) in patients all on a behavioural group programme with nutritional counselling was not effective and there was more pathology in the cannabis group.

Naltrexone

A 6-week trial of naltrexone (100 – 200 mg b.d.) in a mixed group of BN and bingeing AN outpatients, found significant reductions in binge-purging in the treatment group. Subjects were blinded, but they guessed their groups accurately.

Discharge at normal weight versus discharge at below normal weight

Patients discharged while severely underweight have higher rates of re-hospitalization and are more symptomatic than those who achieve normal weight at discharge [III-2].

Bed-rest versus supervised exercise, lenient versus strict weight restoration programmes

No clear conclusions were drawn from comparison of a specialist graded exercise programme following inpatient care with standard treatment (although type II error was a possibility). A second study [III-2] comparing lenient and strict operant conditioning programmes found no difference in weight gain, but several practical advantages of the more lenient programme. A third study showed that brief (i.e. a few days) reward programmes were beneficial in promoting weight gain.

Specialist versus non-specialist programmes

A 1992 study [III] comparing mortality rates in two cohorts of AN patients, followed for a mean of 20 years, from a specialist and a non-specialist centre found that standardized and crude mortality rates were higher in those treated in a non-specialist unit.

Cognitive-behaviour psychotherapy and behaviour therapy in treatment of anorexia nervosa

While there appears to be little difference in health status in patients exposed to cognitive-behaviour therapy (CBT) versus behaviour treatment, patients were more likely to complete treatment or be retained in therapy with CBT. Compared with patients receiving dietary advice, CBT subjects showed improvements in eating disorder and depressive symptom severity, and body mass index. All those receiving dietary advice only 'dropped out' of treatment.

Comparisons of different individual and other psychotherapies

Dietary advice sessions may increase weight gain, while combined individual and family psychotherapy may assist patients with sexual and social adjustment.

For adult patients with AN, both cognitive analytical therapy and educational behavioural treatment may bring about good or intermediate recovery in terms of nutritional outcome, but the former is seen as slightly preferable because patients reported significantly greater subjective improvement. For adolescents, there is a slight trend in favour of family systems therapy over ego-orientated individual therapy in terms of weight gain and maternal communication.

Treatments for osteoporosis in anorexia nervosa

In a non-blinded trial of oestrogen (with progestin) versus no replacement only those with low body weight (<70%) appeared to benefit from oestrogen. In a trial of oral dehydroepiandrosterone (DHEA) a 50-mg dose restored physiologic hormonal levels. Markers showed a decrease in bone reabsorption and an increase in bone formation. There were no significant changes in bone mineral density at any site, nor any adverse effects reported.

Psychological treatments that may be beneficial but which have no empirical backing

Motivational therapy

The goal of motivational interviewing is to facilitate the patients' readiness to change. Although using strategies to enhance motivation to change is intuitively compelling in the psychological treatment of AN, it should be noted that there is no published empirical evidence supporting their use.

CONCLUSIONS AND RECOMMENDATIONS

Given the quality of evidence available (most notably the small size and short duration of most trials) on the treatments for AN, dogmatism is best avoided. Obviously more research needs to be undertaken. Based on the current findings there is evidence to suggest that some treatment of a general nature for AN results in lower mortality than no treatment at all, and is therefore to be recommended. Family-based approaches have moderate support as effective treatments for AN, especially in younger patients who have a short history of the disorder. Individual CBT also has moderate support as an effective treatment, as do combined treatments, especially an integration of psychodynamic and cognitive behavioural treatments, but also family and psychodynamic treatments.

There is widespread agreement in the current clinical and research literature that multidimensional, multidisciplinary treatment approaches are preferential for effective treatment. Treatment usually needs to be

multidimensional in the sense that: (i) comprehensive assessments are done (i.e. physical, psychological, psychosocial, developmental and family histories); (ii) multiple treatment modalities are considered (i.e. medication, nutrition, and individual, group and family psychotherapies); and (iii) multiple interventions are all considered (i.e. behavioural, cognitive-behavioural, psychodynamic, and interpersonal therapies).

Treatment may also be multidisciplinary in the sense that the services of psychiatrists, primary care physicians, psychologists, registered dietitians, nurses, and social workers may all be utilized in a comprehensive, coordinated manner. Obviously such treatment approaches need to be administered in a holistic, coordinated manner.

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