

## Practical management of eating disorders

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Many different treatment programmes exist for the management of eating disorders both at outpatient and inpatient level. In recent years an increase in the incidence of bulimia nervosa has led to more patients being treated as outpatients. It is generally believed that inpatient treatment of anorexia nervosa offers a reliable means of weight restoration in the severely-underweight anorectic patient. Inpatient treatment becomes necessary where outpatient treatment has failed. There is good evidence to show that long-term prognosis is better for patients who are treated in specialized units. Patients with eating disorders admitted to units with specialized nursing care achieve a higher weight gain than those treated in non-specialized units (Royal College of Psychiatrists, 1992). The standardized mortality rate for eating disorders is lower from specialized units than from areas without specialized services (Crisp *et al.* 1992).

### INPATIENT MANAGEMENT

St Vincent's Hospital is a 450-bed teaching hospital with a twenty-one-bed acute-admissions psychiatric unit. Three of these psychiatric beds are designated for the management of patients with anorexia nervosa. These three beds are the only public beds in the Republic of Ireland for the management of anorectics in a specialized unit. Bulimic patients requiring inpatient treatment are admitted to other beds in the unit. While it is of importance nationally to have this specialist service available to all people with eating disorders it is not always possible to respond quickly to those requiring acute treatment. There is a waiting list for both outpatient assessment and inpatient treatment. Although anorexia nervosa is relatively uncommon in males twelve male anorectics received treatment in our unit in the period 1978–1989.

The team treating eating disorders at St Vincent's Hospital consists of psychiatrists, nurses, a social worker and occupational therapist. There is no dietitian on the psychiatric team but there is a dietetic service to the Psychiatric Unit provided by the Department of Nutrition and Dietetics. Dietary management of the eating-disorder patients represents one-quarter of the dietitian's work-load. There has been an increased awareness over recent years that a dietitian can make an invaluable contribution to both the assessment and treatment of patients with eating disorders (O'Connor *et al.* 1989). The nursing team plays a vital role in developing a good alliance with the patient and getting the patient to accept the management programme. The ward sister is the coordinator of the multidisciplinary team. The key to good management is the establishment of a well-structured team approach. All patients are discussed at a weekly ward conference attended by each member of the team. Decisions on changes in individual treatment programmes are made at this time. Eating-disorder patients can be manipulative so communications between team members and patients must be unambiguous at all times. Strategies are firmly implemented to prevent splitting. This also helps to prevent families and patients from categorizing staff as good or bad. The average

Table 1. *Treatment programme for inpatients with anorexia nervosa*

Bedrest
Assessment
Nutritional rehabilitation
Intensive nursing observation and/or care
Psychotherapy
Family therapy

loss of weight of patients before admission is 15 kg. Admission facilitates not only refeeding and weight restoration, but also gives the team the opportunity to address, through psychotherapy, co-existing problems such as depression and obsessional symptoms. The patients admitted for treatment are those who have found themselves in a life-threatening situation resulting from their restricted dietary regimen. A BMI (Garrow, 1983) below 13.5 is indicative of the need for hospitalization (Treasure *et al.* 1995).

#### TREATMENT PROGRAMME

The treatment programme (Table 1) on our unit is one of bedrest, nutritional rehabilitation (through refeeding and education) and psychotherapy. Bedrest does not interfere with the patient's availability to attend psychotherapy sessions. Restricting exercise leads to quicker weight gain and reduced hospital costs (Kaye *et al.* 1988). Patients do not have free access to toilet facilities and have no food available to them other than that provided by their hospital meals. These measures help to prevent bingeing and ensure a controlled energy intake. Routine biochemistry is carried out on anorexia nervosa patients when admitted to the unit (electrolyte profile and full blood count). Anthropometric measurements, height and weight, are recorded by nursing staff. The target weight is set by the dietitian.

#### TARGET WEIGHT

Target weight is set according to the Fogarty Tables (Royal College of Physicians, 1983). The lowest value in the range for height is taken as the target. This corresponds to a BMI of 18.5–19. The patient is told the target weight but the target is not emphasized. Personal opinions and special pleadings from the patient should not be allowed to alter the target. The patient should be reassured that the target is determined by reference to scientific norms (Beumont *et al.* 1993). Letting the patient know the target weight helps to build up a trust between the patient and the team (Treasure *et al.* 1995).

#### CLINICAL DISORDERS SEEN ON ADMISSION

Electrolyte disturbance usually presents in the form of hypokalaemia and is corrected by the administration of intravenous KCl. Patients can present with regurgitation, decreased gastric motility and delayed gastric emptying. Patients are reassured that with nutritional rehabilitation gastric emptying will return to normal (Rigaud *et al.* 1988). Anorectics restricting their food intake may have shrunken stomachs (Crisp, 1985).

Table 2. *Role of the dietitian in the management of inpatients with anorexia nervosa*


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Assess and restore nutritional status
Support patient during period of controlled weight gain
Establish therapeutic alliance and mutual trust
Give information feedback
Dietary re-education

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Many eating-disorder patients may suffer loss of dental enamel as a result of acidic vomit (Hurst *et al.* 1977). If dental caries are present a dental consultation is requested and where extraction is required consideration is given to dietary modification e.g. soft diet. Amenorrhoea is usually reversed when the patient achieves and maintains normal weight. A minimum degree of body fat (approximately 22%) is required to attain and maintain ovulatory cycles. Restoration of fat tissue through refeeding usually results in recovery of reproductive function (Van Der Spuy, 1985). Ultrasound of the ovaries will indicate whether follicular activity has returned to normal (Beumont *et al.* 1993).

Starvation effects of anorexia nervosa are different from those found in protein-energy malnutrition and famine. Initially the anorectic patient will restrict high-energy foods, i.e. fats and carbohydrates, but continue to consume a diet relatively high in protein (Beumont *et al.* 1981). Excessive exercise which is common in anorexia nervosa, together with dietary protein intake, will exert a N-sparing effect. Initial weight loss will be loss of adipose tissue. As adipose tissue stores become depleted protein catabolism increases. Anorexia nervosa patients have been shown to readily replenish protein with nutritional rehabilitation (Russell *et al.* 1994). This is in direct contrast with studies which demonstrate that given nutritional support victims of famine, acquired immune deficiency syndrome and cancer gain fat in preference to protein.

#### ROLE OF THE DIETITIAN

The dietitian is involved with the management of the patient from the day of admission (Table 2). The first contact with the patient is very important as the therapeutic alliance can be established at this time. The dietitian must listen to the patient and not criticize her present nutritional status. A patient's attitude and beliefs about food can only be discussed with someone she feels she can trust. Gaining the confidence of the patient is labour-intensive and time-consuming yet is a vital factor in treatment. Assessing nutritional status involves taking a detailed dietary history. It can be helpful to see a relative in the presence of the patient as many patients may overestimate their nutritional intake or minimize their use of laxatives.

The dietary history should be quantitative and qualitative:

quantitative: many dietary histories will reveal an energy intake of 2100–2500 kJ/d or less. Most patients do not know their daily requirement for energy;

qualitative: it is not unusual to find patients with eating disorders excluding meat and dairy products from their diet as they perceive them to be high-fat foods. These foods are the major sources of Fe (red meat) and Ca (dairy products) respectively in the Irish diet (Irish Nutrition and Dietetic Institute, 1990).

The Irish National Nutrition Survey (Irish Nutrition and Dietetic Institute, 1990) found young females to have Ca intakes below the recommended dietary allowance

(RDA) for Ca. Two-thirds of Irish women did not meet the RDA for Fe. It would seem that the eating-disorder group are not the only group of people to dismiss the nutrient content of these foods in an effort to control energy intake. Poor Ca intake leads to reduced bone density which in turn may increase the risk of osteoporosis. Women with anorexia nervosa are at high risk of developing osteoporosis, although anorectics who have a high level of physical activity have a greater bone density (Rigotti *et al.* 1984). Anaemia is not universal in eating disorders but mild subclinical deficiency of Fe and folic acid has been described in patients with anorexia nervosa (Mant & Faragher, 1972).

The dietary history will also reveal with whom, when and where meals are taken. Anorectics frequently refuse to eat meals with the family and may eat a meal which is different from that eaten by the family. Their mode of eating, i.e. implements used, size of pieces of food consumed and speed of eating are all of interest. Information on the use of vitamin and/or mineral preparations and laxative use can be established at this time. If the patient is vegetarian it is important to determine whether the vegetarianism pre-dated the anorexia. Allergies are frequently cited during this interview. It should be determined whether they have been medically diagnosed or whether they are part of the illness.

Nutritional misinformation will also be revealed at this time. Patients with eating disorders are widely perceived to have a better than average knowledge of nutrition. A final year nutrition student in our department assessed the nutritional knowledge and food beliefs of thirty outpatients with eating disorders compared with thirty healthy controls matched for age and sex (N. O'Gorman, unpublished results). She found that they did not have a better-than-average overall nutritional knowledge score. They scored higher on sections relating to energy value and misconceptions about food. Their knowledge of normal eating patterns and weight control was poorer than that of control subjects.

#### REFEEDING

The aim of good nutritional management is to achieve positive energy balance and to prevent the complications of refeeding. During the first couple of days in hospital the patient chooses from the normal ward menu. The nursing staff encourage the patient to eat what she feels she can tolerate. Food and fluid intake charts are recorded. During this period the patient is very closely observed and monitored to prevent the complications of refeeding. The anorectic diet programme does not commence until a team decision is made to do so.

Among the complications of refeeding acute gastric dilatation is rare but can result in stomach rupture which has a high mortality rate (Evans, 1968). Hypophosphataemia in refeeding may occur when increased metabolic demands outstrip reserves. This is known as the refeeding syndrome. There may be no symptoms, but seizures, cardiac abnormalities, suppression of haematological systems and respiratory failure may occur (Solomon & Kirby, 1990). Patients at greatest risk are those that are severely emaciated and where there is a history of alcohol abuse. Refeeding oedema occurs in particular in the patient who has been abusing laxatives. Conservative management such as raising the limbs and limiting the use of salt often is adequate treatment.

Severely-ill patients are not expected to commence the diet programme immediately. They will be fed their basal energy requirements. The Schofield *et al.* (1985) equation is

used to calculate basal energy expenditure. The normogram, as devised by Elia (1982), is referred to for percentage metabolic rate adjustment.

#### ANORECTIC DIET PROGRAMME

When the patient is ready to commence the diet programme, the diet is explained in detail to her by the dietitian. A standard high-energy diet is provided for the patient. A high-protein diet is not required for anorexia nervosa patients to achieve nutritional rehabilitation (Forbes *et al.* 1984). The patient is expected to finish all meals once the diet is implemented. The meals are similar to those on the ward menu but are smaller and more concentrated. For this reason high-fat foods are used in an attempt to reduce the volume of food consumed.

There is a dessert in addition to main course at lunch and tea. Cream is added to cereal and dessert, and chips are added in varying amounts at teatime to achieve the required energy intake. A high-energy nutritional supplement is provided as a mid-morning and mid-afternoon snack. When a nutritional supplement is used it is imperative that it is energy dense. It is more distressing for a patient to have to consume large quantities of a lower-energy drink. The high-energy supplement used on our unit contains 1255 kJ/200 ml carton.

The diet is formulated in three stages:

Stage 1 8.0 MJ/d

Stage 2 10.9 MJ/d

Stage 3 12.5 MJ/d

The energy content of the diet must be sufficient to gain positive energy balance. All stages consist of three balanced meals daily and a bedtime sandwich is included when the energy intake is increased. The meals are discussed and agreed with the patient. Two food concessions, e.g. dislikes, are allowed for in the dietary programme. The dietitian must not be trapped into promises relating to the type of food which may be eaten. A firm but sympathetic approach is necessary. Consideration is given to true vegetarians. It is important to reassure the patient that if major problems are encountered with the diet the dietitian is available to discuss appropriate alterations. To develop mutual trust the patient must know that the contract is not one-sided and that the dietitian is available for discussion.

The cognitive ability of patients at low body weight is questionable. We cannot assume that anorexia nervosa patients always understand the programme as we have explained it to them.

#### WEIGHT RESTORATION

There is a regular weighing routine. Patients are weighed once weekly, in night clothes before breakfast. The frequency of weighing has been shown not to affect the rate of weight gain (Touyz *et al.* 1990). The expected weight gain is 1–1.5 kg per week. Patients experience great anxiety and panic at the prospect of any gain in weight. This distress can be greatest as the patient gets close to her target weight and the anxiety may continue for some time after discharge from hospital. It is important to reassure the patient that you understand her feelings, but the dietitian must remain firm in the implementation of the specified dietary regimen.

All changes in the treatment programme are discussed at the weekly team meeting

(which coincides with weigh day). As the underlying psychopathology in anorexics varies, each patient must be understood as an individual. However, granting concessions to one patient can cause major nursing problems as all patients share the same room.

The dietitian sees the patient after the team meeting and discusses any necessary changes in diet with her. Change in weekly weight is always discussed with the patient. Avoidance of discussing weight change may lead to greater anxiety and the patient may become more preoccupied with her body size. Not revealing weight change could lead a patient to overexercise or use laxatives in an effort to control perceived weight gain (Treasure *et al.* 1995). The nursing staff discuss privileges which have been agreed by the team. The privileges include more time for recreational and occupational-therapy activities. This system of weight gain and rewards continues until target weight is reached and the patient is fully participating in the social and therapeutic activities on the unit.

#### PROBLEMS DURING PERIOD OF WEIGHT RESTORATION

Many eating-disorder patients, in particular the bulimic and bulimic-anorectic patients need reassurance relating to feelings of fullness, bloating and constipation (Kaplan, 1990). Those who have been abusing laxatives and vomiting should be prepared for a rapid weight gain in the first week as rehydration occurs. This can be an extremely difficult time for the patient. Reassuring the patient that once rehydration is complete her body will begin to gain muscle and other tissue is important.

Patients who have been purging and vomiting may suffer from constipation on the cessation of the laxatives. Restricting anorexics may be suffering from constipation resulting from low food residue from their minimal food intake (Beumont *et al.* 1987). Advice is given on the use of high-fibre cereal, wholemeal bread and adequate fluid intake. Some patients find it difficult to distinguish between the feeling of fullness resulting from the higher fibre intake and their feelings of preoccupation with weight and energy intake. The patient is advised that it may take some time for normal peristalsis and regular bowel habit to return.

It is not unusual to find patients with eating disorders drinking copious amounts of fluids, in particular on the evening before weigh day. In our unit we give guidance on controlling fluid intake to approximately 1.5 litres daily.

All meals and snacks are supervised by nursing staff. The nurse should not be viewed as a schoolmistress or prison guard. She plays a therapeutic role in supporting and encouraging the patient who is having difficulty with meals. Patients can give mutual support during the meal and the nurse can help to facilitate this. Countertransference during mealtimes can be intense: patients may continually refuse to eat dessert (even though they have agreed to it with the dietitian). Scraping butter off the bread and putting it under the side of the plate is common. Food is also put into the napkin and rolled into the folds of the blanket. Supervision of meals can be quite a challenge for nursing staff. The nurse certainly has to use all her skills and imagination in getting the patient to finish meals within the specified time period. The nurse observes the patients' eating behaviour and tries to correct any unusual eating practices at this time. Patients tend to avoid conversation and social contact during eating. This behaviour is addressed when they are eating in the dining room. Condiments are controlled to avoid excessive salt intake.



All patients rest for 1 h after meals. Very distressed patients can find it helpful to listen to relaxation tapes during this period.

#### NUTRITION EDUCATION

Patients with eating disorders can be quite ambivalent about treatment in the early stages of admission. With weight restoration their outlook improves. Nutritional counselling can usually begin when they are midway to their target weight. They are more receptive and anxious to have information at this point. Nutrition advice is based on the *Guidelines for Healthy Eating* from the Department of Health (1993). The concept of the 'Food Pyramid' is used which incorporates the four food groups. They are advised on the number of servings required from each group in order to maintain weight. The patient must view this advice as a healthy eating pattern and not another rigid dietary regimen which just happens to be nutritionally more balanced than previous regimens.

Recovering anorectic patients encounter great problems when they have to make food choices themselves (they have difficulty in taking back control). They are instructed on appropriate portion sizes. Food models can be of assistance here. Patients are allowed to choose from the ward menu before discharge. They are encouraged to expand on their range of food choices and to try difficult foods in a safe environment. Studies have shown that eating-disorder patients after treatment continue to dislike high-fat and high-energy foods (Sunday *et al.* 1992). Patients should try these foods also in different environments such as in the hospital dining room, at home with family or in a restaurant with friends. There can be great family anxiety about eating when the patient is due for discharge. It is helpful for the patient if the dietitian can discuss the eating pattern with a family member to clarify what is expected of the patient on discharge in terms of nutritional intake. The dietitian has to decide with the patient what is 'normal', 'nutritious' and 'socially acceptable' (Beumont *et al.* 1987). Eating-disorder patients who have undergone a treatment programme for their illness are faced with having to eat in a way which will fit into their lifestyle outside the security of the hospital. They will need to be able to eat in a way which will allow them to be comfortable with family and friends and yet not be worried about food. The eating pattern has to be individually tailored for each patient. The energy content must be sufficient to maintain weight. As the patient resumes some physical activity the energy content will need to be reviewed. Weltzin *et al.* (1991) found that after weight restoration restricting anorectic patients required significantly more energy daily to maintain weight than did bulimic-anorectic patients.

#### OUTPATIENT SERVICES

Patients are followed-up in the outpatient department by the psychiatrist. Outpatient dietetic services are limited and are only available for two of the four weekly psychiatric clinics. Patients who attend a clinic on either of these days can be referred to a dietitian. Some patients on discharge may need more support than outpatient clinics can offer. These patients may be advised to attend the Psychiatric Day Centre for a couple of sessions weekly.

## BULIMIA NERVOSA

Most bulimic patients can be managed on an outpatient basis. The dietitian establishes the patients' eating behaviour before the onset of the illness. She discusses current practices and family eating patterns. The dietary advice given to bulimics is similar to that given to anorectics seen in outpatients, as advice for both is based on weight maintenance. Eating disorders and alcohol abuse can co-exist (Jonas, 1989). Bulimics who are known to be abusing alcohol will be advised accordingly. Some bulimics may require inpatient treatment. The programme is both behavioural and psychodynamic.

*Behavioural management programme.* This therapy addresses the bulimia. The patient agrees to refrain from bingeing and vomiting and agrees to approach nursing staff if any difficulties are encountered. The dietitian advises the patient to eat three meals daily. Snacks are included if they are necessary to maintain weight. Many bulimic patients find it helpful to have an agreed snack at bedtime as this is the time that they are most likely to binge. They choose their meals from the ward menu and eat in the dining room. They are weighed once weekly. Issues around impaired gastrointestinal function relating to bloating and constipation and also rebound oedema are dealt with in the same manner as for the bulimic-anorectic patient. Bulimics also need a lot of reassurance and support.

*Psychodynamic.* Control of eating behaviour can often lead to overwhelming emotions such as anger and grief. Patients are encouraged to discuss these feelings which up to the time of admission had been hidden behind the bulimic behaviour. They find ways of coping with these feelings through group therapy and art therapy. The patient must show some degree of insight and motivation for the therapy to work.

## CONCLUSION

Eating disorders are a nutrition-orientated psychiatric disorder. The dietitian's role in the management of eating disorders is challenging. It must be recognized that achieving target weight is not a cure for anorexia nervosa. Weight gain, however, does improve the cognitive ability of the patient. The physical and psychological distress caused by starvation is alleviated also. The dietitian has the knowledge and the expertise to guide and educate the patient through a nutritional rehabilitation programme to achieve and maintain an agreed target weight. This goal is best achieved working as part of a multidisciplinary team where the patient benefits in full from the expertise of each individual team member.

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