DOI: 10.1079/BJN20061706

British Journal of Nutrition (2006), **96**, Suppl. 1, S82–S85 © The Authors 2006

Is an integral nutritional approach to eating disorders feasible in primary care?

Alberto Miján de la Torre^{1,2}*, Ana Pérez-García ³, Elvira Martín de la Torre¹ and Beatriz de Mateo Silleras²

Patients with eating disorders (ED) show alterations in both their behaviour and their intake of food, frequently presenting nutritional and somatic affectations. Besides the classical forms such as anorexia or bulimia nervosa, there has recently been an increase in atypical or incomplete forms of ED, such as binge eating. Primary care (PC) services form the central and closest nucleus of health care for the individual and the family, where ED occur and leave their mark. This allows PC to provide an integral response at all levels of care for ED. Primary prevention at school, in the family and community is fundamental to avoiding its inception. Secondary prevention is based on early diagnosis and treatment of ED and favours a better prognosis of the illness. Tertiary prevention tries to reduce the serious consequences with rehabilitation measures to alleviate complications and avoid risk to life. Due to its complexity, these patients are afforded the attention of multidisciplinary teams of specialists with experience in treating this condition. In consultation with the team, the general practitioner should adopt a leading role at all levels of attention, as he/she is the link between the team, the family and the patient. This requires both regulated, specific training in the disease and the allocation of resources to carry it through. Putting into practice all these plans would allow us to give a positive answer to the question posed in the title of the present article.

Eating disorders: Nutritional care: Primary care: Anorexia nervosa: Bulimia nervosa

By the term eating disorders (ED), we mean the different illnesses included in the updated classifications of mental diseases, i.e. the Trastornos Mentales y del Comportamiento (Organización Mundial de la Salud, 1992) and the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV; American Psychiatric Association, 1994). ED manifest themselves through changes in the intake of food and a common factor is a change in behaviour which, together with other factors, forms the root and psychiatric nature of the illness. Another common characteristic is the frequent, and sometimes serious, nutritional and somatic affectation. Main ED are anorexia nervosa, bulimia nervosa and other unspecified ED. Western society has a high incidence of ED, being one of the most frequent psychiatric problems to affect the young female population (Kreipe & Birndores, 2000). The risk of developing anorexia in this population group is between 0.5 and 1%, while the mortality rate is estimated to be between 4 and 10% (Herzog et al. 1996; Mehler, 2001). The probability of suffering from bulimia in the same sector is between 2 and 5% (Hsu, 1996; Kreipe & Birndores, 2000). As for unspecified ED, they arise in approximately 3-5% of women between the ages of 15 and 30 years in Western countries (Putukian, 1994).

In recent years, a smaller increase has been observed in ED with restrictive predominance and weight loss. On the other hand, there seems to have been a clear increase of patients with complete or partial ED criteria, where the tendency to eat compulsively, whether accompanied or not by

the purgative response, is the core of the illness. Of note among these is the so-called binge eating, which is characterized by the presence of recurrent episodes of binging without the later inappropriate compensatory behaviour. It is frequently associated with obesity and is included in the DSM-IV as an appendix, although not yet as an ED. The prognosis of ED is variable. There can be a greater morbidity in unfavourable outcomes and in the chronic forms relapses can be frequent; all of which means prolonged treatment and periods in hospital.

The above, together with the prevalence and recent appearance of atypical or incomplete forms of ED, even some associated with obesity, create a health problem that needs to be dealt with by the national health services. In particular, the problem must first be dealt with by the primary care (PC) services, the core of the health service, as this is the first point of contact for individuals, families and communities. The accessibility, proximity, competence and effectiveness of PC, together with its continued and integral care, means that its intervention in health problems is of a global nature. Thus, PC services must carry out a situation diagnosis, which not only allows for the detection of such problems, but also brings information regarding the demography and the resources available for combating them. Once the area's health diagnosis has been undertaken, programmes can be carried out that contemplate a global intervention in the processes or illnesses.

Health care from the PC sector for ED, diseases with a high social, economic and health impact, is therefore clearly

¹Servicio de Medicina Interna (Nutrición), 8^a Planta, Hospital Gral Yagüe, Avda Cid 96, E-09005 Burgos, Spain

²Nutrition and Bromatology Department, Faculty of Medicine, University of Valladolid, Spain

³Primary Care Team, Federico García Lorca, Burgos, Spain

justified. Integral intervention strategies are required, from the prevention of ED by promoting healthy eating and life-styles, to an early diagnosis and treatment, together with rehabilitation and prevention of relapses in the chronic forms of the illness. To do so, besides adequate institutional support providing resources, specific training of general practitioners (GPs) in ED is needed, as they must assume the central, coordinating role within the multidisciplinary team that will attend these patients. We can thus answer yes to the question formulated in the title of this article. Not only it is possible, but also desirable and necessary. We shall next describe the strategy of intervention for ED in PC at the different levels.

Primary prevention of eating disorders

Primary prevention (in the strict sense of the term, detection of and later intervention in the potential factors leading to ED) needs to be accompanied by health promotion through educational programmes on nutrition and healthy life-styles. There is no consensus about the causes leading to the development of ED. It is known, however, that their appearance is probably due to a combination of genetic, biological and psychological factors, in which the family, the environment and social situation act as determinant factors (Fairburn *et al.* 1999; Walsh *et al.* 2000). For Garner & Garfinkel (1997), individuals with predisposing factors develop strategies to lose weight in stressful situations (in the family, in relationships, at times of low self-esteem, etc.) and thus recover stability and control over the situation.

The practice of nutrition education requires regulated training and, normally, specifically trained professionals. To educate is not only to inform, it is something more. Education requires the individual's maximum involvement in the educational act, a clear definition of the aims, a sense of purpose that leads to the desired goals, the development of a gradual process and the need to view the individual as a harmonious whole (López Nomdedeu, 2004). To inform or communicate concerning nutrition in ED is simply a part of the educational process and should not be the sole part. Unfortunately, however, nutrition education sometimes begins and ends with information alone. Thus, health promotion through nutrition education programmes is a clear strategy for primary prevention of ED. These can be carried out in the population at risk (the target population) or on a general level and in this case in three scenarios: the family, school and community. The techniques and content of the nutrition education to be used will differ according to the population at whom the programme is aimed. Who should carry out the programme? Either specialized health educators or GPs, because their role in the development of primary prevention is clear, as they are present in the community and are valued and respected figures. We shall now look at some aspects of this more closely.

Education at a family level is essential, given that the determinant factors frequently act on individuals who, because of their age (teenagers, adolescents), still have close ties and a dependence on the family. This can have an influence on the child's eating habits at an age when it is still possible to effectively and permanently modify such habits, which is not the case with adults. The concept of the family has recently undergone modifications in our society, where the figure of the mother, as the coordinating and organizing nucleus, has

been weakened by the logical and progressive advancement in the world of work, and which means she has to carry out both tasks. It is frequent to see that family members often have meals at different times. School timetables have also been modified which, along with the distance of the school from the home and the working hours of the parents, often means that children or adolescents eat outside the home. All this results in a relaxation of the traditional family eating habits, as well as the source and kind of food consumed and even the quantities, especially at weekends, when many young people abuse their dietary habits even more.

GPs must plan nutrition education not only to prevent ED, but also to improve the family's eating habits. They should encourage the use of eating habits in accordance with traditional culture, avoiding special aversions to food; no one is born with a gene that specifies 'I don't like fish or this or that vegetable'. They should encourage children to develop their own tastes and food preferences, in accordance with the opinions of experts and societies in nutrition, without falling into the trap of always eating the same things. Meals should be eaten as a family and, if this is not possible, at least one meal a day and all meals at the weekend should be taken together. The concept of health, illness and wellbeing in children and adolescents is different from that of the adult, as the former in general consider themselves to be immortal and almost invulnerable to illness. Thus, education for a healthy diet, in terms of proportion, variety and balance, should be transmitted to the child in simple language as a means of achieving practical and useful goals: growing taller, playing basketball better, running faster, etc.

Parents should have a basic knowledge of ED (education without causing alarm), so that the GP can be alerted if they suspect symptoms of ED in their children. An adolescent will not normally go to the doctor's surgery on their own initiative to ask for help at the start of a process. Parents should also be receptive when listening to their children's problems, however trivial they may seem. An adolescent must always feel he/she has the support of the family. Parents should reinforce their children's self-esteem, showing interest in and giving a high value to their achievements and activities. They must pay special attention to children's worries about weight, their fear of getting fat, a sudden interest in diets and a loss of regularity in their eating habits. What is more, the parents and educators should act as filters and critics of the impact of publicity, which could favour an environment that may encourage the presence of ED.

In primary prevention of ED, education at the school level is also vital, for both teachers (the educators must be educated) and students. The school and school friends have a considerable influence on children and adolescents. Specific information for teachers through short seminars and interactive talks, with special emphasis on physical education, should aim to make them aware of the symptoms to detect ED early on and thus be able to inform the GP and know how to evaluate the types of food and children's attitudes at school meals. Team sports should be encouraged rather than individual sports as a means to achieve group relations. A normal diet should be encouraged and described and there should be constructive criticism of unbalanced diets (it is always preferable to advise against something rather than forbid it) including the recommendations enclosed in the

food pyramids and other guides. Students should be shown how to make critical judgements concerning social impositions and fashions, how to value the body not only as an aesthetic tool, but also as an instrument offering many possibilities, even intellectual ones, etc. Teachers should also aim to develop children's self-esteem, focusing on the positive, giving importance to praise, encouraging autonomy and giving responsibilities (López *et al.* 2000). Finally, communication with the other nucleus, the family, is also essential for contrasting opinions and sharing worries and their solutions.

Primary prevention of ED at the community level requires other strategies. The GP must act as the referee of the information that the population at risk of contracting ED, basically children, adolescents and young adults, should receive. At the present time, we are witness to messages of the desirability of slenderness transmitted by the media; dress fashions impossible to follow (sizes should be adapted to our bodies, not our bodies to the sizes), the visual, written or oral transmission of magical diets that generate illness, light products, etc. In such cases, the role of the GP should be none other than an open and scientifically rigorous condemnation of the anomalies detected.

To end, we should mention two other important groups in the development of primary prevention. Firstly, pharmacists should carry out rigorous control when dispensing products aimed at weight control. There should also be a greater control by the authorities as far as the prescription, dispensing and commercialization of these products is concerned (Cabranes *et al.* 2000). Secondly, the family associations of ED patients, organized as self-help groups, should not only give help in the secondary and tertiary prevention of the illness, but also, along with social and health organizations, send out a message of social awareness and information adequate for the primary prevention of ED.

Secondary prevention of eating disorders

The secondary prevention of ED in primary care begins with the early diagnosis of the illness. This facilitates treatment with the smallest possible delay after the start of the process. The GP must know not only the DSM-IV criteria that establish diagnoses of ED, but also those isolated symptoms that lead to a suspicion of the presence of the process. He/she should also be familiar with the practice of a physical examination to look for signs of ED, as well as the biochemical alterations that occur with this kind of illness. For this to happen, GPs should have regulated training in nutrition and ED, especially as an early diagnosis is among the factors that can lead to a favourable resolution of the illness. To help the GP, there are surveys and questionnaires to detect ED, though some are not adequate for use in PC due to the difficulty of finding those that, while being quick and easy to use, are also sensitive and reproducible. A good tool for PC is the questionnaire SCOFF, the name of which corresponds to the first letters of the five questions asked.

There is clinical and exploratory data that suggest the presence of restrictive anorexia nervosa. Following Chinchilla (1994), in general, we are dealing with a young adolescent female with a loss of weight of unknown origin or a delay in growth for her age and sex, an inexplicable amenorrhoea

or a delay in the start of menarche. In spite of the apparent thinness, the patient may show physical hyperactivity, which contrasts with the aspect of illness. They will usually lock themselves in the bathroom after meals and begin to take an unhealthy interest in all subjects related with food, such as the types of food or the number of calories, as well as taking an interest in fashion and similar topics. When there is serious weight loss, an examination reveals fine and lank down (lanugo) in areas that were previously hairless. They will also habitually hide particular parts of the body. Finally, there is the loss of relations with family and friends, together with the habitual avoidance of certain meals or specific foods, cutting the food up into minute pieces and taking an excessively long time over meals.

The diagnosis of bulimia nervosa usually takes longer. The patient with anorexia nervosa attends the doctor's office, or is taken, because of their thinness or their strange behaviour, and this does not happen with bulimia. It is often difficult to detect, as, quite apart from the fact that it is practised in secret to hide the symptoms, patients do not usually seem malnourished, so the alarm of the family is lessened. Using Winstead & Willard (1983) as our basis, the keys for its detection could be the following: women excessively preoccupied by their weight, who talk of unspecified abdominal pains, with dental and oropharyngeal changes. They may have an inexplicable increase in the size of the parotid gland, have a history of medicinal abuse and alterations in their menstrual cycle, as well as biochemical alterations through taking diuretics or laxatives in an uncontrolled way. They may also suffer frequent and serious health problems. Another situation that can delay detection of these patients is the so-called fragmented diagnosis (Camarero & Miján, 1998), whereby the patient, because of the diverse symptoms, may see several different specialists, none of whom may reach an ED diagnosis. Thus, it is the GP, and perhaps the dentist (erosion of the tooth enamel, gingival hyperplasia), who must be alert to this pathology.

Once the diagnosis is suspected, it is essential to check whether the patient fulfils, totally or partially, the DSM-IV criteria for the illness, together with its type and subtype. The GP should be aware of the existence of new and emerging ED, even those not labelled as such at the time. Here, we should mention the increase in the incidence of ED as components of an isolated binge eating syndrome, or a clear modification in their eating habits over 24 h, the night eating syndrome, possibly related with the development of serious obesity in the population attended. Once the suspicion of ED has been established through clinical history, physical examination and biological tests that ought to follow a protocol, a differential diagnosis should be carried out with the few illnesses that can mimic ED. In general, due to the singular nature of ED, there are few doubts about the diagnosis, but it should be established with organic diseases such as, among others, hypothalamic tumours, diabetes mellitus, panhypopituitarism, acute pancreatitis, inflammatory bowel disease, coeliac disease, tuberculosis, lymphoma, and others. Psychiatric anamnesis is used both to eliminate the possibility of an illness that can look like an ED and to evaluate the presence of a second associated illness, a situation known as psychiatric comorbidity, an extremely common state that can modify or aggravate the initial ED prognosis. It is worth noting among such conditions the presence of major or minor depressive

disorders, obsessive—compulsive disorders and borderline personality disorders (Miján de la Torre & Velasco Vallejo, 1999). Nowadays, we see an increase in the number of patients with severe anorexia and weight loss as a secondary symptom to the consumption of illegal drugs, such as cocaine and amphetamines.

The GP/patient relationship should be strengthened through the development of child and adolescent programmes so as to facilitate an early diagnosis. Such programmes would maintain contact through periodical check-ups, annually during the period of greatest risk for developing ED. Once a suspected or definite diagnosis of ED has been established, it must be confirmed by the psychiatric specialist in the mental health unit. Moreover, if there is malnutrition or an alteration in the eating habits, the patient should be referred to the nutrition clinic. The physician in PC should be aware, through a protocol established by consensus with specialist care, of those situations of particular gravity that require urgent referral to the specific hospital department. To cite some examples, severe malnutrition, serious cardiac, metabolic and haemodynamic alterations or a high risk of suicide. ED treatment will depend on the type of disorder, the patient's age and the phase and seriousness of the illness. The aims of treatment in PC will be both nutritional and psychiatric. The patient should be aware, through nutrition education, of the principles of a balanced diet. Therapeutic diets are not recommended while general advice is. The indication of enteral nutrition is not frequent, as this is usually restricted to the hospital environment. Refeeding will be slow, the aim is to recuperate and maintain an ideal weight. The problems associated with the malnutrition must be treated and complications avoided. From the psychiatric perspective, treatment in the mid term centres on the control of affective, behavioural and personality disorders when present, as well as an improvement in interpersonal relationships.

It is always important to establish treatment through a multidisciplinary team: psychiatrist, nutritional doctor, psychologist, dietician, nurse, social worker and others. They must have adequate training and experience in these kinds of illness and they should preferably be in a special ED unit. The GP should know and participate in the therapeutic decision concerning his/her ED patient. The GP should also watch the short-term evolution of the illness and act as the link between the team, the patient and the family.

Tertiary prevention

This aims to eliminate or reduce some of the serious effects of ED using measures to alleviate complications and avoid the risk to life (Pérez García & Miján de la Torre, 2004). In PC, there should be a continuous attention to stable and chronic patients, thus avoiding relapse, through the control of the taking of medication, as well as the control of weight

and eating habits. The support of the family is fundamental and there must be continual contact between them and the multidisciplinary ED team and the self-help associations. The final evolution is variable, though a positive yet realistic prognosis should be given.

References

- American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. Washington, DC: American Psychiatric Association.
- Cabranes JA, Gil I, Gomez Candela C, et al. (2000) Protocolo de Atención a Pacientes con Trastornos del Comportamiento Alimentario Dirigido a Médicos de Atención Primaria, Madrid: Ministerio de Sanidad y Consumo, Secretaría Gral Técnica.
- Camarero E & Miján A (1998) Trastornos de la conducta alimentaria. In *Tratado de Nutrición Artificial*, pp. 401–422 [S Celaya, editor]. Madrid: Grupo Aula Médica SA.
- Chinchilla A (1994) *Anorexia y Bulimia Nerviosas*. Madrid: Ed Ergón SA
- Fairburn CG, Cowen PJ & Harrison PJ (1999) Twin studies and the etiology of eating disorders. *Int J Eat Disord* **26**, 349–358.
- Garner DM & Garfinkel DE (1997) Handbook of Treatment for Eating Disorders, 2nd ed. New York: Guilford Press.
- Herzog DB, Nussbaum KM & Marmor AK (1996) Comorbidity and outcome in eating disorders. *Psychiatr Clin North Am* **19**, 843–859.
- Hsu LK (1996) Epidemiology of the eating disorders. *Psychiatr Clin North Am* **19**, 681–700.
- Kreipe RE & Birndores A (2000) Eating disorders in adolescents and young adults. *Med Clin North Am* **84**, 1027–1049.
- López C, García A, Migallón P, et al. (2000) Nutrición Saludable y Prevención de los Trastornos Alimentarios. Madrid: Ministerios de Sanidad y Consumo, Educación Cultura Deporte y del Interior.
- López Nomdedeu C (2004) Educación nutricional de la población general y de riesgo. In *Nutrición y Metabolismo en Trastornos de la Conducta Alimentaria*, pp. 459–476 [A Miján de la Torre, editor]. Barcelona: Ed. Glosa.
- Mehler PS (2001) Diagnosis and care of patients with anorexia nervosa in primary care setting. *Ann Intern Med* **134**, 1048–1059.
- Miján de la Torre A & Velasco Vallejo A (1999) Nutrición y trastornos de la conducta alimentaria: anorexia y bulimia nerviosas. *Nutr Hosp* **14**, Suppl. 2, 81–91.
- Organización Mundial de la Salud (1992) *Trastornos Mentales y del Comportamiento, CIE10*. Madrid: Mediator (versión española).
- Pérez García A & Miján de la Torre A (2004) Nutrición y trastornos de la conducta alimentaria en atención primaria. In *Nutrición y Metabolismo en Trastornos de la Conducta Alimentaria*, pp. 477–492 [A Miján de la Torre, editor]. Barcelona: Ed. Glosa.
- Putukian N (1994) The female trial-eating disorders, amenorrhea and osteoporosis. *Med Clin North Am* **78**, 345.
- Walsh JM, Wheat ME & Freund K (2000) Detection, evaluation, and treatment of eating disorders. The note of the primary care physician. *J Gen Intern Med* **15**, 577–590.
- Winstead DK & Willard SG (1983) Bulimia: diagnostic clues. *South Med J* 76, 313–315.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permissio	n.