

Orthorexia nervosa – an eating disorder, obsessive-compulsive disorder or disturbed eating habit?

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Summary

The purpose of this article was to describe the phenomenon of a new disorder called orthorexia nervosa. This paper proposes a theoretical framework for the definitions, prevalence, diagnostic criteria, method and treatment of orthorexia. This disturbing behaviour concerns the pathologic obsession for healthy nutrition. In contrast to eating disorders, people with orthorexia are obsessed with food quality rather than quantity and they do not care excessively for thin silhouette like in the case of patients with anorexia and bulimia nervosa. Individuals with orthorexia nervosa are obsessive about healthy food, leading to dietary restrictions and to a variety of negative psychological and social outcomes. The results of previous research show that on the one hand orthorexia is related to anorexia and bulimia nervosa, and on the other hand this syndrome is more closely allied with obsessive-compulsive disorders. In view of the studies presented here we could treat orthorexia as a disturbed eating habit which is connected with obsessive-compulsive symptoms.

food restriction / health food / eating attitude

INTRODUCTION

There is relatively little information available about orthorexia nervosa (ON) [1] because it is a new term and does not have a universally accepted definition or valid diagnostic criteria. This disturbing behaviour is not present neither in DSM-IV-TR nor in ICD-10. Orthorexia nervosa is a new concept about eating behaviour disorders [2] and is composed of pathologic obsession for biologically pure foods [3], which can cause substantial dietetic limitations [4] and which is able to lead to obsessive thoughts about foods,

affective dissatisfactions and intense social isolation [2, 5, 6].

This is not a weight loss regimen but an immense phobia about eating only “pure” food. Having orthorexia nervosa not only means that people are obsessed with eating “healthily”, but also that they have a specific attitude to food, they prepare their food in a certain way [1] as well as avoid consumption of some foods or all of a some group of foods since they consider them to be harmful for their health. The quality of the foods they consume is more important than personal values, interpersonal relations, career plans and social relationships [7]. In fact, the desire to consume healthy foods is not a disturbing behaviour in itself, and it is only defined as orthorexia nervosa when it causes a person to give up his or her normal lifestyle [1].

Orthorexia nervosa could be considered as a disorder connected with behaviour and personality due to paying too much attention to consuming healthy food, spending an excessive

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amount of time with this preoccupation, and experiencing associated dysfunctions in everyday life [1]. Orthorexia nervosa can be regarded as a harmful behaviour, because healthy eating is connected to fear and worries about health, eating and quality of food [8].

DEFINITIONS OF ORTOREXIA

The term “orthorexia” has been produced from “orthos”, which literally means “accurate, straight, right, valid or correct” and “orexis” meaning hunger or appetite. This term is used for “obsession with healthy and proper nutrition” [1, 6, 9]. Steven Bratman [6] defined this concept for the first time in 1997. The author used *orthorexia nervosa* to define a pathological fixation on the consumption of appropriate and healthy food [5]. The term of orthorexia is used to describe an unhealthy fixation with healthy eating [10]. Bağci Boci et al. [7] described orthorexia nervosa as “highly sensitive behaviour with regard to healthy nutrition”.

People with orthorexia are likely to shun foods which may contain pesticide residues or genetically modified ingredients, unhealthy fatty foods having too much salt or too much sugar and other components. The methods of preparation (a particular way of cutting vegetables) and materials (ceramics only or only wood) are also part of the obsessive ritual [11]. The configuration of the day-to-day diet, which takes up a lot of time, could be divided into four phases [2, 5]. The first section is devoted to thinking with concern and cautiously about what will be eaten on that day or the following day; a second phase pertaining to the thorough and hypercritical acquisition of each ingredient; a third phase referring to the culinary preparation of these ingredients, which must consist of techniques and procedures that are not linked to health hazards; the fourth stage is a stage of satisfaction, comfort or guilt based on the appropriate enforcement of the three preceding phases. If any of these phases is not attainable or it is not possible to abide by these rituals, a sense of guilt and concern for the violation will appear.

DIAGNOSTIC CRITERIA

In spite of the fact that the diagnostic criteria are not yet sufficiently verified, they have been

proposed for orthorexia [12]. However, Bratman and Knight [13] propose a test that allows to establish whether expression of feeding behaviour in health education ought to be considered as pathological or not. Authors [14] have suggested a short *Bratman's Orthorexia Test (BOT)* as a screening tool useful for early diagnosis of the disorder. This diagnostic test for orthorexia consists of ten questions (e.g. “Do you spend more than 3 hours a day thinking about your diet?”, “Has the quality of your life decreased as the quality of your diet has increased”, “Do you feel guilty when you stray from your diet?”). If the person answers “yes” to 4 or 5 questions, this means that it is necessary for her/him to relax more in regard to their food (unless it is a prescription diet). If the person answers “yes” to all questions, then she/he has an important obsession with healthy eating and should examine this behavior with the help of a qualified professional [13].

MEASURE OF ORTHOREXIA NERVOSA

Donini et al. [12] developed the ORTO-15 test for the diagnosis of orthorexia based on a brief 10-item orthorexia questionnaire by Bratman [13]. They used some of the items from Bratman's test and added some new items to create the ORTO-15 questionnaire. The original version of ORTO-15 was first developed in Italy. It is a 15-item self-report questionnaire that determines the prevalence of highly sensitive behaviour related to health and proper nutrition. Items assess an individual's behaviours (obsessive attitudes) related to the selection, purchase, preparation, and consumption of food that they consider to be healthy (e.g. “When you go in a food shop do you feel confused?”, “Are you willing to spend more money to have healthier food?”, “Do you think your mood affects your eating behaviour?”). Donini et al. [12] aimed to develop items that would assess individuals in terms of emotional and rational aspects. For this reason, some items assess the cognitive-rational domain, some the clinical domain, and others the emotional domain. Each item is answered on a 4-point Likert scale. Individuals are required to answer with “always – often – sometimes – never”, to reflect how often they define themselves

with these expressions. Items that reflected an orthorexic tendency are scored as “1”, and items that reflected a tendency towards normal eating behaviour are scored as “4”. Scores below 40 points in the ORTO-15 test are defined as orthorexic (having highly sensitive behaviour), eating behaviour reaches more normal standards as the score increases [12].

PREVALENCE

Donini et al. [1] investigated the prevalence rate of orthorexia nervosa by studying 404 people in Italy, and provided suggestions for diagnostic criteria. Participants were evaluated in terms of their food selection behaviours, and obsessive-compulsive and phobic symptoms. In relation to food selection behaviour, 17.1% (n = 69) of the sample were defined as ‘health fanatics’. People diagnosed with orthorexia nervosa accounted for 6.9% (n=28) of their entire sample. The specific ‘feelings’ towards food, that is ‘dangerous’ to describe a conserved product, ‘artificial’ for industrially produced products and “healthy” for biological produce, as well as the demonstration of a strong or uncontrollable yearning to eat when feeling nervous, happy, excited, or guilty has been associated with orthorexic subjects. The prevalence rate among people suffering from orthorexia nervosa was higher among men compared to women (11.3% vs 3.9%). As stated by Donini et al. [1], “it is possible that with the present trend towards the presence of men in the world of ‘body culture’ (meaning the attention given to one’s physical aspect in order to live up to the high level stereotypes dictated by society), males may have found an optimal behaviour pattern in the ‘health-fanatic’ food choice” [p. 156].

In Spain the prevalence of this disorder is at present unknown, as it is a new phenomenon, though some specialty care centers relate between 0.5% and 1% of orthorexic patients [11].

A Turkish study [7] carried out among 318 resident physicians at a hospital in Ankara, has found that 45.5% of the participants were excessively sensitive to their own eating habits and they scored below 40 points in the ORTHO-15 test. It has been seen that medical doctors who take care of the nutritional quality while buying

foods, score low in ORTO-15, which points to the fact that they have highly sensitive behaviour about healthy nutrition. The average score on the ORTO-15 is lower in those who do their shopping themselves, substitute lunch or dinner with salad/fruit, and care about the quality of the things they eat. Indeed, in this study 20.1% of the male doctors and 38.9% of the female doctors stressed that their food selection had been affected by TV programs on healthy eating habits. Like authors [7] emphasize, it is a compelling reason for the fact that such a large number of people with a high level of education are able to be so heavily impacted by the media.

It is worth pointing out that the prevalence of highly sensitive attitudes to healthy eating at this high socioeconomic level shows that medical doctors are also in need of education about the tenets of a balanced and proper diet [7].

Another study [3] has found that the prevalence of orthorexia was 43.6% among medical students (n=878) (scored above 27 in the ORTO-15 test). This research has also shown that the prevalence of orthorexia among the male medical students was higher than that among the female medical students.

Some people with orthorexia are terrified of unhealthy food due to genetic predisposition, a perfectionist personality, unrealistic demands, misinformation or social pressures [9]. The higher risk groups for orthorexia nervosa are women, adolescents, people who practice sports (bodybuilding, athletics) [2, 5, 15], medical physicians and medical students [3], dieticians [16] as well as performance artists [14]. Research concerning orthorexia nervosa among Turkish performance artists (39 men and 55 women) has shown that a total of 56.4% of the artists have orthorexia nervosa [14]. While the highest prevalence of orthorexia nervosa was recorded among opera singers (81.8%), it was 32.1% among ballet dancers and 36.4% among symphony orchestra musicians. Hungarian research [8] has shown that 56.9% of the university students have an inclination to orthorexia nervosa. This study has also indicated the correlation between orthorexia and eating and body image disturbance (if orthorexia features are present, the eating and body image disturbance are more intensive).

The results of Turkish research [15] have demonstrated that married people showed more

symptoms than unmarried ones of a tendency towards orthorexia.

WHAT KIND OF DISORDER IS ORTHOREXIA?

The clinicians and scientists still carry on the debate on whether orthorexia is a real and unique disorder and whether it is worth its own categorization in the "Diagnostic and Statistical Manual of Mental Disorders"¹ together with eating disorders (anorexia nervosa, bulimia nervosa and eating disorder not otherwise specified) [5].

On the one hand, eating disorder experts in the United Kingdom [9] argue that orthorexia is not currently identified with eating disorder because it does not begin with low self-esteem, but it may in time result in an eating disorder as the diet becomes more refined and compulsive. Orthorexia nervosa is marked by an excessive desire to consume pure and healthy foods, unlike other eating disorders in which a preoccupation with weight loss is observed [15]. Unlike anorexia and bulimia, which are obsessions about the quantity of food intake (and also physical appearance), orthorexia nervosa results from an obsession about the quality of food intake [6, 7]. In contrast to patients with anorexia and bulimia, the motivation of the people with orthorexia is not to lose weight but to achieve a feeling of perfection or purity [5]. On the other hand, even though orthorexia is not an independent diagnostic category, it has some similarities with other eating disorders: a genetic predisposition to perfectionism as well as a need for control [5]. Preoccupation with consuming healthy and pure foods can result in malnutrition and weight loss as in anorexia nervosa [3]. Nonetheless, some argue that the preoccupation with food in orthorexia is not as distinctive as in anorexia and bulimia cases, as it is only related to the quality of the food; therefore, it should not be placed in a separate category [10].

However, both disorders share many characteristics. People with orthorexia often have a history or features in common with anorexic patients.

¹ Since orthorexia nervosa is not recognized as a mental disorder by the American Psychiatric Association (it is not listed in the DSM-IV or planned to be included in the DSM-V), there are very few peer reviewed original papers published in English to date [e.g. 17, 18, 19].

They are very detailed, careful and tidy persons with an exaggerated need for self-care and protection [2, 11]. Bartina [11] supposes that when the obsession with healthy eating becomes extreme, the person starts to concentrate only on food and this leads to severe restrictions as well as biological and psychological complications (e.g. severe social isolation). Being in control of what the person eats becomes a priority. People with orthorexia have a desire to be perfect, which is consistent with other eating disorders such as anorexia or bulimia nervosa [11]. Zamora et al. [2] emphasize that in patients with orthorexia "obsessive-compulsive mechanisms with personality traits similar to those of restrictive anorexia (rigidity, perfectionism, need to control your life transferred to eating), phobic mechanism (intense anxiety regarding certain foods and their avoidance) and hypochondriac mechanisms are described" [p. 67].

Orthorexia may be affected by a distorted eating attitude and obsessive-compulsive symptoms. The relationship between changes in eating behaviour in orthorexia nervosa and obsessive-compulsive disorders are presently being studied [1, 2, 7]. Research by Arusoğlu et al. [15] has shown that orthorexic tendency could be related to a pathological eating attitude² (eating attitude was noted to be a good predictor of orthorexic tendency) and that obsessive-compulsive symptoms had a significant effect on orthorexic tendency. Individuals that had higher obsessive-compulsive symptoms had greater orthorexic tendencies. The authors' clinical observations suggest that the number of people with an orthorexic tendency is increasing [15].

Mathieu [5] wonders why it could be possible that someone obsessed with achieving the perfect diet does not even belong in the category of eating disorders, but should instead be classified as having obsessive-compulsive disorder (OCD)?

TREATMENT AND THERAPEUTIC ORIENTATION

According to Arusoğlu et al. [15] interventions could be managed in accordance with the identified symptoms. For people with an orthorexic tendency, clinicians might focus on the yearning

² Food preoccupation, body image for thinness, vomiting and laxative abuse, dieting, slow eating, clandestine eating as well as perceived social pressure to gain weight were classified as abnormal eating attitudes.

to consume “pure healthy foods” rather than concentrating on the desire to be thin. The treatment assumptions that were developed for well-known eating disorders could then be broadened according to the needs of the orthorexic population.

A person suffering from orthorexia should realize that she/he has a problem concerning eating behaviour, understand that the quality of food consumed is not the only factor determining health and learn to eat without falling into an obsession.

The treatment of orthorexia demands a multidisciplinary team including physicians, psychotherapists and dieticians [11]. In some cases, cognitive behavioural therapy combined with selective serotonin reuptake inhibitors (such as sertraline, fluoxetine and paroxetine) can be useful in treatment of people with orthorexia [5]. It is also worth pointing out that unlike other patients with eating disorders, people with orthorexia tend to respond better to treatment, because of their concerns about their health and self-care [5]. Working with the immediate environment of patients and promoting nutrition education are early components essential to achieving the final solution to the problem [11].

CONCLUSIONS

A healthy diet should have a positive impact on health and, at the same time, not affect relationships with other people or the quality of life and emotional states. In recent years, social awareness of diet, nutrition and healthy eating has increased³, nevertheless, among some people to the point where this knowledge shows signs of an obsession. Instead of caring about providing the adequate amount of nutrients for the body, they are preoccupied with worries about what might constitute the “healthiest” food. Knowledge about human eating habits as well as eating behaviour is essential for assessing the nutritional profile of people addicted to healthy products, as it is in the case of orthorexia.

Orthorexia nervosa could not be labelled as a new eating disorder because it does not include the most characteristic symptoms of anorexia and bulimia nervosa that is immense fear of becoming fat, extreme weight-control behaviour

³ We should take into consideration that popular media and the food industry (e.g. “natural” foods, “organic” foods) also have influence on the development of orthorexia nervosa.

as well as overevaluation of shape and weight. However, since orthorexia involves disturbance of eating habits it ought to be treated as a disorder concerning abnormal eating behaviour inseparably linked with obsessive-compulsive symptoms (on account of paying too much attention to consuming healthy food and constant thinking about the quality of food intake).

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