

ORTHOREXIA NERVOSA – THE BORDER BETWEEN HEALTHY EATING AND EATING DISORDERS

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ABSTRACT

The term *orthorexia nervosa* (ON), presented in 1997 in *Yoga Journal* by Dr. Steven Bratman, sheds new light on the view on healthy eating habits. He showed that persistent thinking about nutrition does not necessarily have to be associated with anorexia or bulimia, and may turn into something so far unknown - obsessive control over the healthiest eating style, resulting in numerous self-imposed restrictions and in the long run, without appropriate therapy, leading to the deterioration of the current state of health. Orthorexia can have many consequences not only on mental health, but also on physical health. For this reason, the development of standard diagnostic and classification criteria for orthorexia nervosa is a priority. The problem of eating disorders should be the subject of epidemiological research, which will take into account demographic, cultural and socio-economic conditions appropriate for a given population, and will also take into account the pressure of factors related to the food market.

Key words: *orthorexia, orthorexia nervosa, eating disorders, nutrition, health*

STRESZCZENIE

Termin *ortoreksja nervosa* (ON), przedstawiony w 1997 roku na łamach *Yoga Journal* przez dr Stevena Bratmana, rzuca nowe światło na kwestię zdrowych nawyków żywieniowych. Wykazał on, że uporczywe myślenie o odżywianiu nie musi być związane z anoreksją czy bulimią, a może przerodzić się w coś dotychczas nieznanego - obsesyjną kontrolę nad najzdrowszym stylem odżywiania, skutkującą licznymi samoograniczeniami, a w dłuższej perspektywie, bez odpowiedniej terapii, prowadzącą do pogorszenia obecnego stanu zdrowia. Ortoreksja może mieć wiele konsekwencji nie tylko dla zdrowia psychicznego, ale także dla zdrowia fizycznego. Z tego powodu opracowanie standardowych kryteriów diagnostycznych i klasyfikacyjnych dla *orthorexia nervosa* jest priorytetem. Problem zaburzeń odżywiania powinien być przedmiotem badań epidemiologicznych, które będą uwzględniały warunki demograficzne, kulturowe i społeczno-ekonomiczne właściwe dla danej populacji, a także będą brały pod uwagę presję czynników związanych z rynkiem żywności.

Słowa kluczowe: *ortoreksja, orthorexia nervosa, zaburzenia odżywiania, żywienie, zdrowie*

INTRODUCTION

When talking about eating disorders, most of the attention is usually focused on two of them - (AN) and bulimia nervosa (BN). Undoubtedly, the fact that society's education on this type of disorder is progressing deserves praise. Often, however, educators themselves do not realize that they can be directed in exactly the opposite direction, i.e. overly healthy eating.

The term *orthorexia nervosa* (ON) appeared for the first time in 1997 in the work of Dr. Steven Bratman „In the claws of healthy food” (*Health Food Junkie*) [7]. The doctor wrote it based on his past experiences

with the radical diet. According to the World Health Organization (WHO), this is an unhealthy, exaggerated focus on a healthy diet. The question of whether it should be treated as a separate disease entity, an eating disorder or an obsessive-compulsive disorder (OCD) remains a controversial issue [8, 24].

SYMPTOMS OF ORTHOREXIA

People with orthorexia are obsessive about their diet, devoting a large part of their time to it [21]. They pay above-average attention to the quality of food, raw materials and sources from which it comes - they check that vegetables and fruit have not been

in contact with pesticides, dairy or meat has not been obtained from animals that have been given hormones or antibiotics, or whether the food contains additives such as preservatives or artificial dyes [15]. They fear diseases that could develop as a result of eating poor-quality, in their opinion unhealthy products, and therefore spend a great part of their time deepening their knowledge of healthy eating and go to extremes related to it. Some people refrain from taking whole groups of products, for example, completely excluding dairy products, gluten, simple sugars and even all carbohydrates from their diets. It happens that radical restrictions on the consumed groups of products over time lead to a state of malnutrition, gradual weight loss and deterioration of general health [21]. There are no studies on the effects of long-term untreated orthorexia nervosa, but its health effects are expected to be similar to those seen in anorexia nervosa, i.e. they may develop into osteoporosis, anemia, metabolic acidosis, hyponatremia or bradycardia. [6, 27].

Orthorexia does not even spare the social life of people affected by it - often meals prepared in restaurants and by other people do not meet the standards imposed by them, and therefore refuse to eat them. Sometimes they also criticize the diet of the people around them, considering their nutrition to be the best for health [21].

DIAGNOSIS CRITERIA

There are no officially accepted criteria for the diagnosis of orthorexia [10]. It is still not included in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) which is a classification of mental disorders issued by the American Psychiatric Association, or the International Statistical Classification of Diseases and Related Health Problems (ICD-10). ORTO-15 questionnaires are usually taken into account [5], BOT (*Bratman's Orthorexia Test*) [15] and EHQ (*Eating Habits Questionnaire*) [10].

Due to the lack of clearly indicated diagnostic criteria, it is difficult to define the scale of this phenomenon in the world. Various studies show that the risk of orthorexia may affect from 1% to as much as 57.6% of the population, depending on the study group and adopted diagnostic criteria [1, 11, 13, 17, 19]. In 2019, a study by *Lucka* et al. [24] was published, which showed that out of a group of 864 respondents, as many as 240 people (27.7%) were at risk of developing orthorexia nervosa. It also noted a significant relationship between the risk of eating disorders, examined using the EAT-26 questionnaire, and the suspicion of orthorexia resulting from the completed ORTO-15 forms [24], which suggests that it is another eating disorder and not a separate disease entity or an obsessive-compulsive disorder (OCD).

RISK FACTORS OF ORTHOREXIA

Orthorexia is a relatively new entity, therefore the factors predisposing to its development remain the subject of numerous studies [35]. Due to the multifactorial nature, complexity and heterogeneity of this disorder, they are conditioned by many factors: individual, because biological, and socio-cultural [14]. The disease often begins innocently, and behaviors to improve physical condition and reduce the risk of disease can motivate a healthy diet. Orthorexia begins when planning, buying and preparing meals is dominated in daily activities [20, 23]. Different conclusions about the relationship between age and ON risk can be drawn from different works. According to some of them, young people are the most vulnerable, while others indicate that there is no relationship between age and orthorexia [31]. The issue of gender and predisposition to HE also remains debatable, however, researchers tend to believe that it is not related to this unit [8, 26, 31]. Interestingly, it has been noticed that perfectionists are more likely to suffer from orthorexia [29].

Among the nutritional factors, some studies indicate that vegans and vegetarians are more likely to develop ON than those on a basic diet [5, 9, 25]. Taking into account various branches of vegetarianism, the highest risk of orthorexia was observed in lacto-vegetarians [12].

According to *Strahler* et al., among people predisposed to ON, a large proportion were people following the Mediterranean diet [32], which was recognized by the U.S. News & World Report monthly as the healthiest diet in 2022. It was noticed that keeping the caloric balance also influences the higher risk of orthorexia [9, 31, 32]. A relationship has been found between the history of weight loss in the past and an increased likelihood of ON [5, 31]. Research by *Parra-Fernandez* et al. from 2018 suggests that people dissatisfied with their body more often suffer from ON [30]. Researchers are also looking for a relationship between orthorexia and the field of study or work. Some studies suggest that employees of sectors related to health and nutrition and students of related fields of study, such as dieticians or students of medicine, are particularly vulnerable [2, 33], but some studies did not find such a relationship [1, 26]. However, the studies conducted so far indicate that the most important risk factor for orthorexia is the present or past eating disorders, such as bulimia and anorexia [3, 8, 18]. The work of *Turner* and *Lefevre* shows that the risk of orthorexia is much more common among social media users, especially Instagram [34]. People using this platform were more likely to develop ON. Similar observations about orthorexia and the use of social media were made by *Yilmazel* [36]. It can

therefore be concluded that social media, especially those rich in profiles focusing on the topic of healthy eating, contribute to the creation of inappropriate eating habits.

TREATMENT OF ORTHOREXIA AND THE ROLE OF DIETICIANS

As with diagnostics, there are no standards for the treatment of orthorexia nervosa. Considering the available literature, it can be assumed that the therapy of orthorexia should be similar to the protocols adopted in the case of other eating disorders, such as anorexia nervosa (AN) and bulimia nervosa (BN), due to their similarity - in each of these units, the patient's mind focuses on nutrition, but in the case of orthorexia nervosa, the interest in nutrition is not caused by the desire to improve the appearance, but the diet.

The therapeutic team should consist of a psychotherapist, dietician and physician, especially when ON contributed to the state of malnutrition and deterioration of health. Individual or group psychotherapy and treatment of orthorexia complications are important [28]. The physician may consider introducing pharmacotherapy, eg. olanzapine, which has an antipsychotic effect [27]. Treatment of patients with a high degree of malnutrition and metabolic complications should be in the hospital. According to the protocol proposed in 2015 by *Koven* and *Wabry*, a physician dealing with orthorexia should be familiar with the treatment of refeeding syndrome [22].

In the treatment of orthorexia nervosa, the main task of a dietician is nutritional education and correction of incorrect eating habits resulting from the disorder [8]. If malnutrition is diagnosed, nutritional treatment should follow the pattern of anorexia nervosa and begin with a modified consistency diet - liquid, semi-liquid or mush. Gradually, one should strive to achieve a diversified diet, covering the patient's energy needs [28].

There is no doubt that nutritionists should update their knowledge of nutrition in line with scientific achievements, which is included in the sixth point of the promise of the Dietician's Code of Professional Ethics of the Republic of Poland. It should be borne in mind that one of the symptoms of orthorexia nervosa is the constant desire to broaden one's knowledge about food and nutrition and related fields [21]. For this reason, the competences of a dietician working with a patient suffering from ON can be constantly tested and even questioned by the patient. Certainly, in addition to knowledge about nutrition, knowledge of human physiology, food production technology, psychology and even food law will be useful.

Knowledge about the methodology of conducting research, the ability to spot inaccuracies and mental errors can help the patient realize that some of the scientific research referred to is of low quality and should be approached with a distance. A dietician should be able to explain in an accessible way what is supported by current scientific knowledge in the context of nutrition. Only when the patient believes in the broad knowledge of this subject of the person with whom he works, can we talk about starting some of the proper therapy.

It is worth for a dietician in the process of nutritional education to focus on the topic of groups of products that a person with orthorexia has stopped consuming. It is good to make an inventory of all products or methods of thermal processing that are excluded from the diet. Introducing them back to the menu should be done gradually, after the patient has been properly prepared. If the patient raises the topic of side effects of consuming certain products, it should be factually presented why moderate consumption may bring more tangible benefits than risks.

CONCLUSIONS

Considering the available literature sources, it can be concluded that the contribution of a dietician to the treatment of orthorexia nervosa may be one of the key factors determining the success or failure of treatment. Current knowledge about nutrition and broadly understood health, presented to the patient in a substantive and accessible way, is a very important element of the therapy. The problem of ON, its appropriate classification and epidemiology, risk factors, diagnosis and treatment protocol should be the subject of further research. Only on their basis will it be possible to develop effective prevention programs as well as diagnosis and therapy schemes for this disease.

Conflict of interest statement

The authors declare no conflict of interest.

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