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# Orthorexia: When Healthy Eating Becomes Problematic

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**Abstract**

Counselors must help clients differentiate between healthy eating and disordered eating. Thus, this review of the literature examines when healthy eating becomes dangerous, and in some cases, life threatening by comparing a condition known as orthorexia to identified mental health disorders. Orthorexia nervosa (ON) is defined as, "a pathological obsession with proper nutrition that is characterized by a restrictive diet, ritualized patterns of eating, and rigid avoidance of foods believed to be unhealthy or impure" (Koven & Abry, 2015, p.385). Orthorexia is not included in the current Diagnostic and Statistical Manual of Mental Disorders (DSM) as a disorder. Even so, characteristics of orthorexia could potentially fit into two different diagnostic categories: eating disorders or obsessive-compulsive disorders. The similarities and differences between anorexia nervosa (AN), obsessive-compulsive disorder (OCD) and orthorexia are discussed in this review and the importance of being educated about orthorexia is also included.

Keywords: *orthorexia, anorexia, obsessive-compulsive, perfection*

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**Orthorexia: When Healthy Eating Becomes Problematic**

Healthy eating is glorified in our society as a whole. There are always new diets, new super foods or the newest food or beverage cleanse that promote a healthier food option or a step towards a healthier lifestyle. In today's society there are ads for the newest diets regularly shown on television or seen on social media platforms. This, in part, is why it is difficult to tell when following a diet turns into disordered eating.

The concept of good foods and bad foods is also prevalent in society today, for example, there are various recommendations to "eat this, not that". This message can influence food choices for a person and has the potential to lead to ON behaviors. ON, or Orthorexia Nervosa, can be defined as "A pathological obsession with proper nutrition that is characterized by a restrictive diet, ritualized patterns of eating, and rigid avoidance of foods believed to be unhealthy or impure" (Koven & Abry, 2015, p.385). Characteristics of ON include obsession with consuming, the purest, healthiest foods, malnutrition due to elimination of food groups, decreased social interactions and potentially financial strain. The societal message of perfection is one that has been around for decades and contributes to individuals with ON in finding the perfect, purest food. Because social media is not a good resource for health recommendations, it is critical that individuals seek out the advice of a medical professional before making drastic changes in diet and exercise, and for counselors to be aware of characteristics of ON. Thus, in this paper I will define orthorexia, compare the characteristics of anorexia nervosa to those of ON, and compare the characteristics of obsessive compulsive disorder with those of ON. I will provide information about implications orthorexia can have on an individual as well as opportunities for advocacy and continued research.

## Review of Literature

### Defining Orthorexia Nervosa (ON)

Orthorexia nervosa (ON) is defined as "A pathological obsession with proper nutrition that is characterized by a restrictive diet, ritualized patterns of eating, and rigid avoidance of foods believed to be unhealthy or impure" (Koven & Abry, 2015, p.385). The term orthorexia was first coined by Dr. Steven Bratman in 1997 and translates to "proper appetite" (Koven & Abry, 2015). Orthorexia can begin innocently when an individual chooses to follow a healthy diet. When the obsession and preoccupation of consuming only "perfect" healthy food interferes with an individual's day to day life, as well as a decline in health and/or a negative effect in a person's social life, the healthy plan begins to transform into a physically and mentally taxing disorder. Individuals who may be experiencing ON become fixated on the source of the food they eat, how their food is prepared and the nutritional value before and after cooking. In addition, an individual may engage in eating rituals from which they will not stray.

#### *Indicators of Problematic Eating*

Healthy eating is glamorized in the media and strongly encouraged by health professionals. This normally does not cause harm for individuals who begin to eat healthier or begin an exercise routine. For those facing ON, healthy eating is taken to an extreme and becomes detrimental to their wellbeing. According to Kazmierczak-Wojtas and Niedzielski (2021), those who show symptoms of ON tend to cut out foods containing preservatives, color additives, artificial flavors, foods treated with pesticides and genetically altered foods. Along with the restrictions previously stated, individuals struggling with ON have been known to cut out foods containing excessive amounts of fat, sugar, and sodium. With these restrictive eating

practices, there is a possibility of nutritional deficiencies, extreme weight loss, and some of the same medical complications seen in individuals with severe anorexia (Koven & Abry, 2015). Individuals who display orthorexic tendencies may also struggle with social interactions due to their rigid eating routines. For example, individuals displaying orthorexia may avoid eating socially due to their need to control how their food is prepared and the fear of not being able to find an acceptable food when dining out (Moroze et al., 2015). There are not only physical and social symptoms of ON, but psychological ones as well. Those struggling with ON tend to experience guilt, shame, disgust, irritation, and anxiety when they are unable to maintain the strict food regime they follow (Koven & Abry, 2015). Currently, there are no concrete, accepted diagnostic criteria for ON, however, Table 1 shows the proposed diagnostic criteria for ON (Moroze, et al., 2015).

**Table 1: Diagnostic Criterion for Orthorexia Nervosa (*Proposed*)**

| |
|---|
| **Criterion A.** Obsessional preoccupation with eating "healthy foods," focusing on concerns regarding the quality and composition of meals. (Two or more of the following.) |
| •Consuming a nutritionally unbalanced diet owing to preoccupying beliefs about food "purity." |
| •Preoccupation and worries about eating impure or unhealthy foods and of the effect of food quality and composition on physical or emotional health or both. |
| •Rigid avoidance of foods believed by the patient to be "unhealthy," which may include foods containing any fat, preservatives, food additives, animal products, or other ingredients considered by the subject to be unhealthy. |
| •For individuals who are not food professionals, excessive amounts of time (e.g., 3 or more hours |

per day) spent reading about, acquiring, and preparing specific types of foods based on their perceived quality and composition.

•Guilty feelings and worries after transgressions in which “unhealthy” or “impure” foods are consumed.

•Intolerance to other's food beliefs.

•Spending excessive amounts of money relative to one’s income on foods because of their perceived quality and composition.

**Criterion B.** The obsessional preoccupation becomes impairing by either of the following:

•Impairment of physical health owing to nutritional imbalances, e.g., developing malnutrition because of an unbalanced diet.

•Severe distress or impairment of social, academic, or vocational functioning owing to obsessional thoughts and behaviors focusing on patient’s beliefs about “healthy” eating.

**Criterion C.** The disturbance is not merely an exacerbation of the symptoms of another disorder such as obsessive-compulsive disorder or of schizophrenia or another psychotic disorder.



## How ON is Diagnosed/Recognized

### *Current Assessments*

Assessments are a useful tool when deciding on an appropriate diagnosis for a client. When it comes to assessments specifically for ON, there have not been any developed at this

time. The research shows other eating disorder assessments may be helpful to identify irregular patterns of eating, attitudes towards food and a disruption in self-esteem and body image. Proposed assessments include: Eating Attitudes Test (EAT-26; Garner et al., 1982) and the Eating Disorder Screen for Primary Care (ESP; Cotton et al., 2004). A separate assessment, the Multidimensional Perfectionism Scale (MPS; Hewitt & Flett,1991) has been shown in a study to predict orthorexic tendencies (Novara et al., 2021). This may be a useful tool that need continued research because of the perfectionism component of orthorexia.

### *Questionnaires Available*

While there have been no valid or reliable measurements approved for diagnosing ON, there is a questionnaire available as a screening tool known as the ORTO-15 (Donini et al., 2005). The ORTO-15 is a 15-item questionnaire used to distinguish healthy and pathologically healthy eating which uses a 4-point, Likert scale that ranges from "always" to "never" (Donini et al., 2005). According to Novara et al. (2021), it may also be helpful to administer the Eating Habits Questionnaire-21 (EHG-21); Gleaves et al., 2013) to gain better insight into where an individual is in regard to food and eating. The EHG-21 provides self-report information about a person's knowledge of healthy eating, problems associated with healthy eating and feelings towards healthy eating. This has the potential to lead to more in-depth conversations with an individual who may be struggling with ON.

### *Self-Reporting Measures*

Due to the lack of questionnaires and assessments created in order to aide in identifying ON, self-report is the current course of action. When meeting with an individual who may be struggling with orthorexia, the information provided by the individual experiencing the symptoms may provide the most in-depth information. The ability to hear from the individual

about their own attitudes about food, what foods they consume or have chosen to eliminate from their diet and daily eating behaviors would help identify orthorexic tendencies. Another topic that would be useful using the self-report is the individual's social interactions and if there have been any changes, both positively or negatively.

### *Nutritional Aspects/Considerations*

In addition to self-report during client interviews, a nutritional assessment would be a useful tool to identify orthorexic behaviors, which could include blood testing to measure nutrient levels in the body. After the initial nutritional assessment, a dietitian could request the client maintain a food log over a certain period of time to assess the amount and types of food the client consumes. Upon review of a food log, continued conversation around food choices would occur to gain insight into the reasons for the foods chosen. This would be useful in identifying malnutrition that can occur in those with orthorexic tendencies from the elimination of entire food groups (Koven & Abry, 2015).

## Differentiation of Orthorexia from Other DSM-V Disorders

### *Anorexia Nervosa (AN) Defined*

Anorexia Nervosa (AN) is a clinical, diagnosable eating disorder. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the following criteria must be met in order to have a diagnosis of AN:

> Restriction of energy intake leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. Intense fear of gaining weight, even though underweight. Body image disturbance, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight. (pp. 338-339)

Anorexia also has two subtypes, restricting type and binge-eating/purging type. Restricting type AN is categorized by weight loss accomplished primarily through dieting, fasting and/or excessive exercise (APA, 2013). The binge-eating/purging subtype is characterized by recurrent episodes of binge eating or purging behavior (i.e. self-induced vomiting, misuse of laxatives, diuretics or enemas) (APA, 2013).

### *Similarities Between AN and ON*

Although ON is not currently recognized as an eating disorder, it does share traits of AN. According to Koven and Abry, (2015), as represented in Figure 1, the overlap between AN and ON is worth exploring. Individuals with ON and AN experience extreme perfectionism, not solely with food, but in other areas of life. Guilt over incorrect food choices is both present in ON and AN. The amount of insight that individuals with either ON or AN is very limited; that is, they tend not to see the issues with their thoughts and behaviors. The ability of an individual to function in their day-to-day life is hindered by the behaviors of both AN and ON. One of the well-known characteristics of AN is the extreme weight loss that occurs. Similarly, such weight loss can occur with ON because of the elimination of food groups, although the desire to lose weight is not the motivating factor. Malnutrition is also present in both AN and ON because of the restricted intake of food, which could require a refeeding process to build back the nutrition that is lost.

### *Differences between AN and ON*

As noted, there are similarities between ON and AN, but there are significant differences between them. One major difference is that an individual with ON will flaunt their behaviors to others whereas someone with AN would tend to keep their behaviors a secret (Koven & Abry, 2015). According to Simpson and Mazzeo (2017), the behaviors of those with ON may be

deemed as more acceptable than the behaviors of someone with AN. A glaring difference between ON and AN is the consumption of food. With AN, there is a restriction of all foods, not just foods deemed unhealthy or impure as expressed in ON. Orthorexia has the maximizing health component as to why food is treated the way it is. Anorexia on the other hand is focused on weight loss and the desire to be thin, regardless of the health consequences. As mentioned previously, Figure 1 also depicts the differences between AN and ON.

### *Obsessive Compulsive Disorder (OCD)Defined*

OCD is a diagnosable disorder in the DSM-5. In order to be diagnosed with OCD, the following criteria must be met as outlined by the DSM-5:

> Presence of obsessions, compulsions, or both: Obsessions are defined by (1) and (2): 1. Recurrent and persistent thoughts, urges, or impulses that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress. 2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (i.e., by performing a compulsion). Compulsions are defined by (3) and (4): 3. Repetitive behaviors or mental acts that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly. 4. The behaviors or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these behaviors or mental acts are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive. The obsessions or compulsions are time-consuming (e.g., take more than 1 hour per day) or cause clinically significant distress or impairment in social, occupational, or other

> important areas of functioning. The obsessive-compulsive symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition. The disturbance is not better explained by the symptoms of another mental disorder. (p. 237)

As with AN, there are specifiers when it comes to OCD to more clearly define the level of impairment an individual is experiencing. These specifiers include:

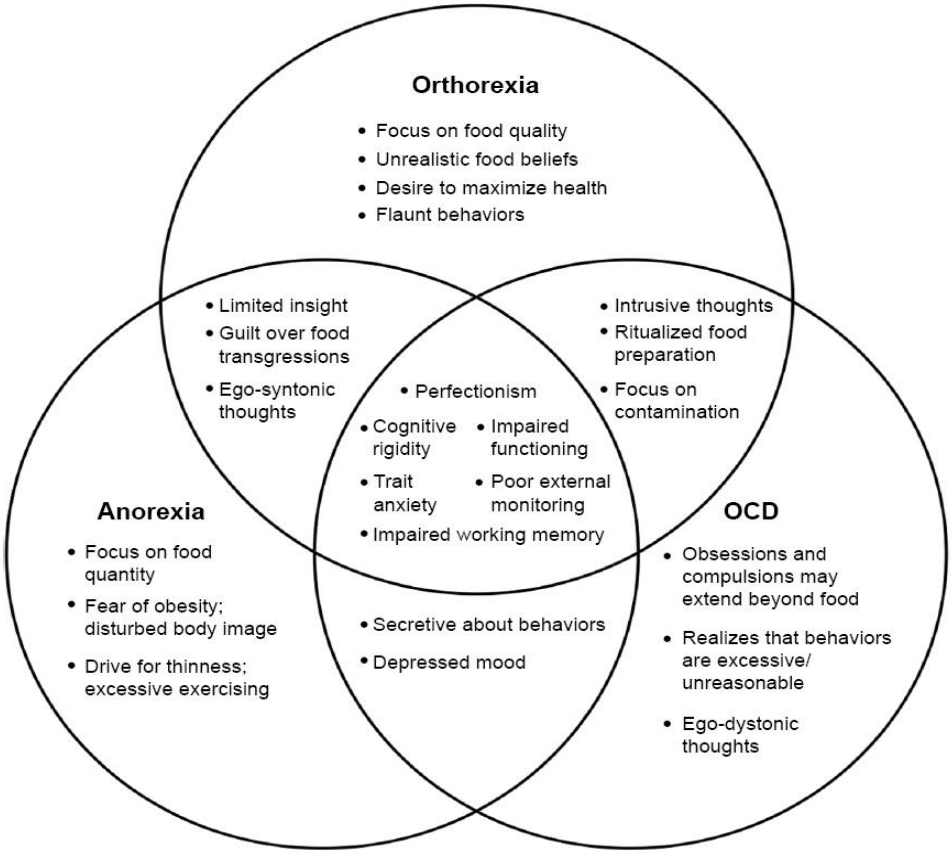
> With good or fair insight: The individual recognizes that obsessive-compulsive disorder beliefs are definitely or probably not true or that they may or may not be true. With poor insight: The individual thinks obsessive-compulsive disorder beliefs are probably true. With Absent insight/delusional beliefs: The individual is completely convinced that obsessive-compulsive disorder beliefs are true. Tic-related: The individual has a current or past history of a tic disorder. (p. 237)

### *Similarities Between OCD and ON*

There are similarities between ON and OCD that warrant discussion. “Orthorexic individuals spend most of their time in strict rules and excessive efforts to choose, prepare and eat healthy food, similar to patients with OCD” (Yilmaz et al., 2020 p. 3036). Another similarity between OCD and ON is the experience of intrusive thoughts, in ON this is more likely to be centered around food choices or food mishaps. As with OCD, ON has a sharp focus on contamination and minimizing it as much as possible. The strict rules and desire to choose, prepare, and consume the healthiest food possible also matches symptoms individuals with OCD experience, and in both instances, can lead to a decrease in social functioning (Yilmaz et al., 2020). Perfectionism, rigid thinking and a marked decrease in level of functioning are a few

other characteristics that OCD and ON have in common (Koven & Abry, 2015). The overlap of characteristics between OCD and ON can be seen in Figure 1.

**Figure 1**




*"Venn diagram showing unique and overlapping features of orthorexia nervosa, anorexia nervosa, and obsessive–compulsive disorder (OCD)" by Dove Medical Press Limited, Nancy Koven, Alexandra W Abry, used under CC BY-NC 3.0*

***Differences Between OCD and ON***

Despite the numerous shared characteristics of ON and OCD, there are significant differences. With OCD, the compulsions and obsessions may extend beyond food (Koven & Abry, 2015); whereas for individuals with ON characteristics, food is the primary focus of

compulsions and obsessions. Individuals with OCD tend to want to hide their behaviors; in contrast, someone with ON behaviors would prefer to flaunt them to others (Koven & Abry, 2015). When talking about the obsessions and compulsions with a client exhibiting ON, there does not appear to be the intense fear that something terrible will happen if they do not follow their strict food regime. It manifests more internally and viewed as a failure. A visual of the differences between OCD and ON can be seen in Figure 1 on the previous page.

## Importance of Understanding ON

### Implications

It is important that individuals with orthorexia continue to be researched and studied. There are physical as well as psychological side effects related to ON behaviors. The results of continued research and studies have the potential to benefit the individuals struggling with ON as well as help clinicians gain knowledge and tools of how to treat these individuals. The ramifications of ON have the potential to be life altering, and in some cases, life ending.

#### *Physical Health*

The physical effects of ON on a person's body can range from mild to severe impairment. The biggest concern in those facing ON is malnutrition. Malnutrition in ON is a result of the elimination of entire food groups (Moroze et al., 2015). When entire food groups are removed from a person's dietary intake, the body is not receiving the nutrients needed for optimal functioning. More examples of the physical toll ON can take on a body include: low sodium levels, low potassium levels, unbalanced acid and water levels and a decrease in the red and white bloods cells in the body (Moroze et al., 2015). These are only a few of the health ramifications ON can have. Another area of concern would be the chance of refeeding syndrome when an individual would attempt to return to normal nutrition. Refeeding syndrome occurs

when there are drastic shifts in the body's fluids and electrolytes which can be fatal. (Moroze, et al., 2015).

### *Mental Health*

Aside from the physical effects ON can have on a person, there are also psychological effects that need to be examined. The daily focus on finding, preparing and consuming the purest foods possible puts an undue amount of stress on an individual (Fixsen et al., 2020). Along with stress, those struggling with ON are prone to experience anxiety and guilt from not following their food regime perfectly. When individuals enforce strict food regimes, the potential for social isolation increases. The social isolation could be a precursor for feelings of loneliness, helplessness, and guilt, which also increases the risk of depression.

### *Implications for Counselors*

The term orthorexia is being discussed more often even though it was coined in 1997. Orthorexia does not fit into the DSM-5 eating disorder category, and it does not fit OCD criteria. Despite this, ON can be a deadly condition and counselors need to become aware of the signs and symptoms associated with ON. There is much work to be done and continued research is a necessity to learn more about individuals with this disorder, to consider the development of diagnostic criteria as a separate disorder or a sub-type of another disorder, and to test interventions associated with ON to support clients towards positive outcomes.

## Future Considerations

### *Advocacy*

Awareness is a powerful tool and has the potential to bring about monumental change. Whether becoming more knowledgeable about orthorexia is personal or professional, it is

bringing more awareness that ON is, in fact, a dangerous condition that needs to be better understood. The mental health field needs professionals who are willing to put in the time to further research ON and formulate a process for diagnosing and treating ON. The current in-depth studies performed in other countries have found the highest prevalence of ON traits and behaviors among college athletes (Kiss-Leizer, et al., 2019), and college students studying nutrition/dietetics (Agopyan, et al., 2019). Thus, coaches and professors would benefit from becoming aware of orthorexia and how it presents in athletes and students. This, in turn, would allow them to possibly change how certain topics are presented and discussed. In the medical community, the same research needs to be conducted because ON cannot solely be treated as a psychological condition. An individual with ON will more than likely need the care of a medical physician, an advanced practice nurse practitioner, registered dietitian, and/or a physician assistant. The more the medical and mental health communities acknowledge ON exists, the greater the chance those suffering will receive the life-saving help they need.

### *Continued Research*

There is a critical need to delve into ON further to be able to offer diagnosis and treatment to those who are experiencing orthorexic behaviors. There are currently no valid or reliable assessments or treatment protocols for those with ON partly due to the fact it is not considered a diagnosable disorder. The mental health community as well as the medical community need to continue to research orthorexia and conduct studies in order to better serve those struggling with these symptoms. Continued research is needed to be able to categorize ON correctly which then will help in creating diagnostic tools and treatment protocols.

It is imperative future counselors, especially those who want to with eating disorders, have knowledge and understanding of ON. While ON is not a clinically recognized diagnosis, it

is being recognized more often and has begun being researched more within the past five to ten years. The information contained in this review is only a starting point of understanding ON. Counselors in practice need to know about ON to recognize it and be able to give the client the best possible care. Treating eating disorders is complicated; therefore, treating orthorexia as a disorder that fits AN criteria and OCD criteria further confounds intervention options. Questions that need to be answered include: What is the best course of treatment? Where should ON fit if added to the next edition of the DSM? While there is not enough information currently available to answer these questions, progress is being made. There needs to be more studies conducted with those exhibiting ON tendencies, diagnostic criteria need to be developed, assessments and questionnaires need to be designed and an appropriate and comprehensive course of treatment defined. Unfortunately, until this work is done, orthorexia will continue to negatively affect individuals and those around them.

## Conclusion

Orthorexia, although not a diagnosable disorder, is a topic that counselors and medical professionals need to be aware of and educated about. The obsession of consuming the purest, healthiest foods can affect a person's mental, physical and emotional well-being. Orthorexia manifests with similar symptoms of two recognized, diagnosable DSM-V disorders: anorexia nervosa and obsessive-compulsive disorder. Due to the overlap among these three conditions, it is difficult to determine where orthorexia should or would be placed in the next edition of the DSM. Continued research is desperately needed in order for proper diagnostic criteria and proper diagnostic tests to be formed. Orthorexia deserves more attention and recognition so individuals struggling have the opportunity to receive help and be able to live the best life possible.

## Author's Note

The understanding and treatment of eating disorders is my passion and the reason behind my choice to study and present on orthorexia nervosa. A secondary reason why I chose to research orthorexia is because my ideal career will be working with individuals with an eating disorder diagnosis. I believe this information is important not only for myself, but for other professionals because the increase in knowledge about orthorexia will allow for better treatment and treatment outcomes. This research aids in understanding the similarities and differences between anorexia nervosa and obsessive-compulsive disorder and how there are aspects of both in how orthorexia symptoms can present in an individual. In society and on social media, we are constantly shown healthy eating and how there are good foods and bad foods when in reality, there are no good or bad foods. These messages have the potential to take simple, healthy eating and turn it into a life-threatening condition. I look forward to continuing learning about orthorexia as the research continues and I personally hope to see it in the next update to the Diagnostic and Statistical Manual of Mental Disorders.

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