A Holistic Exploration of Orthorexia Nervosa

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Abstract

This thesis seeks to holistically explore orthorexia nervosa (ON), an extreme preoccupation with consuming healthy food (Bratman, 1997). The medicalized culture in which we live places immense pressure on individuals to be healthy, which, when combined with specific individual vulnerabilities, can lead to obsessive manipulation of one's food intake. By examining both the contributing culture and individual factors, this thesis will build a foundational understanding of ON and provide key considerations for therapists and counsellors to refer to while working with struggling individuals. Given the seemingly close relationship between ON and anorexia nervosa (AN), this thesis also argues that Acceptance and Commitment Therapy (ACT), a therapeutic framework found to be effective in the treatment of AN (Baer, Fischer, & Huss, 2005; Heffner, Sperry, Eifert, & Detweiler, 2002), may be successfully used as therapeutic framework for ON.

Keywords: orthorexia nervosa, eating disorder, healthism, eating disorder therapy

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Chapter One: Understanding Orthorexia: Presence and Prevalence

Eating disorders, namely anorexia nervosa (AN), bulimia nervosa (BN), and binge-eating disorder (BED), have been studied extensively at an individual, social, and cultural level. While these disorders are considered to be clinically diagnosable mental illnesses (American Psychiatric Association, 2013), there is yet another set of subclinical disordered eating behaviours that have captured the concern and interest of mental health practitioners, scientists, and scholars alike.

Orthorexia nervosa (ON) is the term for a collection of eating behaviours not yet in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) that has been receiving a great deal of attention since it first emerged as a concept in 1997 (Bratman, 1997). Dr. Steven Bratman, a medical doctor and alternative healthcare practitioner, first introduced the concept of orthorexia nervosa, defining it as a "fixation on eating healthy food" (Bratman & Knight, 2000, p.7). In his inaugural article Bratman (1997) confessed to his own struggles with this type of dietary extremism and admitted to recognizing strikingly similar disordered behaviours and practices in many of his patients.

Since Bratman (1997) initially introduced ON, a notable amount of multi-faceted research has been done on the subject, though the majority of it to date has presented ON as a problem existing at the level of the individual (Håman, Barker-Ruchti, Patriksson, & Lindgren, 2015). While examining the psychological characteristics of ON at the level of the individual is important for establishing valid diagnostic criteria for mental health practitioners (Koven & Senbonmatsu, 2013), the hyper-focus on ON as an individual issue is highly problematic for a myriad of reasons, which will be explored in depth in Chapter two. Perhaps most notably,

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however, a purely psychological, individualistic approach to ON, or to any mental health disorder for that matter, undermines the social and cultural contexts in which these disorders are born, survive, and thrive (Håman et al., 2015).

Research Questions

What cultural forces have led to extreme preoccupation around health in our society? How have these forces contributed to the development of orthorexia? How do disordered eating/eating disorders and orthorexia masquerade themselves as health and wellness? Who might be at risk for developing orthorexia and how can at-risk populations protect themselves from developing orthorexia? Finally, what therapeutic techniques and interventions can be used to help individuals suffering from orthorexia recover and develop a healthy and balanced relationship with food and with themselves?

Purpose Statement and Context

The objective of this paper is to gain a holistic understanding of ON by using a feminist lens and critically examining the cultural factors, as well as the individual risk factors that may be contributing to the phenomenon of ON. In addition to this, this thesis will explore various therapeutic approaches that have shown potential to be effective in the treatment of ON and suggest specific steps for counsellors to take with their clients towards healing from ON.

With these specific objectives in mind, it is imperative to first examine and define ON, as well as a few other important terms that relate to the discussion about ON. The terms that will be analyzed in this chapter include: Orthorexia nervosa, anorexia nervosa, avoidant/restrictive food intake disorder (ARFID), and obsessive-compulsive disorder, Each of these terms play a critical

role in any discussion about ON in order to contextualize it, though many other relevant terms will be analyzed and defined in later chapters to frame each discussion.

Chapter two will explore the ways that North America's sociocultural climate is creating conditions that give rise to ON and other kinds of disordered eating practices. This discussion will seek to deepen the understanding of ON by framing it as not simply an individual mental health problem, but as a manifestation of a complex and highly problematic cultural narrative around food, health, and body. Chapter three will go on to explore the individual risk factors that may contribute to the development of ON, such as a tendency towards health anxiety and OCD behaviours, history of an eating disorder, and following a restricted diet. While we may indeed live in a culture that promotes orthorexic behaviours (Rangel, Dukeshire, & MacDonald, 2012), it is clear that some individuals are more at risk of developing ON than others and it is important to explore why.

Following the discussion on the individual risk factors for ON, Chapter four will explore the therapeutic interventions that show potential for those struggling with ON. It will also provide specific steps and suggestions, as well as important considerations for counsellors and other health professionals to follow when working with clients with ON. Chapter five will provide a summary and reflection on the thesis as a whole and will discuss its strengths and limitations.

Personal Interest

My interest in this topic, the cultural and individual factors contributing ON and how it can be effectively treated, stems from the intersection of three experiences: my experience as a patient in the realm of alternative medicine/healthcare, my personal struggles with disordered eating, and my work as a personal chef and holistic nutritionist in the field of natural health/wellness.

Having been a patient of several alternative medicine/healthcare practitioners in the past, I have received a plethora of conflicting and highly problematic messages around food, health, and body that slowly eroded the healthy relationship with food that I had worked so hard to establish after struggling with disordered eating. I experienced first-hand the psychological and physical damage that dietary interventions such as elimination diets, rigid dietary protocols, and food sensitivity testing have the potential to inflict on a person. Before I knew it, no food seemed "safe" and I was under the impression that what and how I ate was the sole causative and curative factor for my chronic health conditions. I existed in a place of constant fear around food and looking back, I can clearly see that I was in the throes of orthorexia.

Later when I worked in the field of holistic nutrition, I found myself reinforcing a lot of the messaging around food, health, and body that I had heard as a patient. While I knew on some level that this messaging had been extremely damaging to me, I found myself enamored with it nonetheless and I even, regrettably, used it with my clients. Every day I witnessed other nutritionists and "wellness influencers", as they are now commonly called, on their digital platforms posting gorgeous photos of their perfect skin, thick, flowing hair, and sleek, toned bodies, crediting their appearance to renouncing gluten and dairy or their strict raw vegan diet. Their captions on Instagram claimed that their rigid dietary protocols had cured them of their chronic illnesses and allowed them to fully embody the picture of perfect health.

Bearing witness to this conflation of information about food, health, and body captivated me but instead of inspiring me to make healthy changes in my life, I became obsessive, depressed, and isolated—feelings all too familiar from my days of disordered eating. My mental health suffered and as I continued to struggle with nagging physiological symptoms. While cutting more and more foods out of my diet and filling my cupboards with nutritional supplements, I began to feel like a failure. Why could these women cure themselves of their ails with food and I could not? The answer always seemed to be just around the corner in the form of the latest anti-inflammatory diet or superfood.

It was when I began to recognize some of the same concerning behaviour in clients and friends, some of whom had similar disordered eating backgrounds to me, I began to come to terms with the fact that something was seriously wrong. In the quest for perfect physiological health through diet, we had become unhealthily obsessed with food body.

This experience, as well as my desire to specialize in eating disorders in my future counselling work, has been the driving force behind this thesis. It is my sincere hope that by deepening my understanding of ON and the forces that drive it, I will be able to clearly understand my experience, better help my future clients, and provide insight and guidance for other mental health professionals working with clients suffering with ON.

Analysis/Definition of Terms

Before entering into the discussions about ON, it is important to explore its origins, as well as the way it is represented in mental health literature. While doing this, however, it is important to keep in mind that since ON is not yet considered to be a diagnosable mental illness (American Psychiatric Association, 2013) no formal definition, accepted diagnostic criteria, or approved categorization of ON exist (Brytek-Matera, 2012). Rather, researchers have proposed various ideas about ON that will be discussed below. While ON has not been formally categorized as an eating disorder, much research points towards the similarities between ON and other eating disorders, like AN (Koven & Sebonmatsu, 2013; Koven & Abry, 2015). It is therefore important to define the various eating disorders that are currently recognized by the DSM-5, especially those that share commonalities with ON, such as AN and ARFID, in order to understand the present landscape of eating disorders and where ON may fit in. Since individuals struggling with ON also seem to share many characteristics with individuals suffering from obsessive-compulsive disorder (OCD) (Koven & Sebonmatsu, 2013; Koven & Abry, 2015), OCD will also be defined here. Though this introductory discussion around ON will use existing diagnostic and pathologizing language, the intent is not to attempt to categorize or further pathologize individuals struggling with ON, but to simply examine the context in which ON is currently being conceptualized in the field of mental health research. It is important to note that while diagnostic and pathologizing language may be necessary in some situations, it can be highly problematic in many ways, some of which will be discussed in later chapters.

Orthorexia Nervosa

Orthorexia nervosa (ON) is a Greek term using the prefix "ortho", meaning correct, "orexia" denoting appetite, and "nervosa", referring to nervousness (Bratman, 1997). In the book Health Food Junkies, the first book written on ON, Bratman & Knight (2000) give numerous examples of the kinds of foods individuals struggling with ON commonly avoid, such as vegetables grown with pesticides or foods with added sugars or high fat content, they note that one's "correct" way of eating may differ greatly from someone else's. The commonality, however, seems to be the "exaggerated focus on food" (Bratman & Knight, 2000, p. 8), and the presence of magical thinking about food as it relates to health (Koven & Abry, 2015). While an interest in healthy eating is commonly considered benign at the least and beneficial at best, individuals suffering from ON take this otherwise healthy eating behaviour to the extreme, creating the potential for serious psychological and sometimes physical consequences to occur (Bratman, 1997; Gleaves, Graham, & Ambwani, 2013).

The obsessive fixation with healthy, pure eating reported by individuals struggling with ON has numerous consequences, including a significant reduction in quality of life (Koven & Abry, 2015), spending the majority of their day thinking about food, (Bratman & Knight, 2000; Herranz Valera, Acuña Ruiz, Romero Valdespino, & Visioli, 2014), and avoiding social interaction or activities that may involve food not up to an individual's standards or dietary preferences (Bratman & Knight, 2000; Koven & Abry, 2015). Indeed, individuals presenting with ON will often choose not to socialize with people who do not share their rigid dietary preferences (Bratman & Knight, 2000).

While excessive thinking about food is typically common among eating disorders, like AN and BN, what distinguishes ON from these is the fixation on the quality of food ingested, rather than the quantity (Bratman & Knight, 2000; Mathieu, 2005). To put it another way, striving to reach dietary perfection and a pure, healthy body, however that is defined by the individual, is the main objective in ON (Bratman & Knight, 2000).

To achieve dietary perfection, individuals presenting with ON may engage in a variety of behaviours, including obsessive checking of food ingredient lists and rigid advanced planning of meals (Mathieu, 2005; Byrtek-Matera, 2012; Herranz Valera et al., 2014). In the face of dietary imperfection, or consuming foods that they do not consider healthy or natural, individuals

struggling with ON are likely to experience emotional distress, think that they have contaminated their bodies, and may partake in various cleansing and detox rituals in order to rid themselves of the perceived contaminants (Bratman, 2000; Byrtek-Matera, 2012; Herranz Valera et al., 2014). As Bratman and Knight (2000) described, to individuals struggling with ON, falling off of the path of healthy eating is an amoral act often experienced as a "fall from grace" (p.9), that may trigger severe health anxiety that seems to underlie ON (Koven & Abry, 2015).

It is important to note that many individuals follow special diets, such as vegetarianism, with the aim of improving their health without exhibiting characteristics of ON. Individuals struggling with ON, however, may frequently switch from one strict dietary philosophy to another very quickly, despite how contradictory the two may be (Bratman, 2017b). For example, one may fanatically adhere to raw veganism, which consists of refraining from cooked foods and all animal products, for a period of time, before rapidly abandoning that way of eating for a Paleo diet, which forbids grains and emphasizes animal protein.

As so many of today's popular dietary philosophies are quite restrictive, individuals struggling with ON often end up omitting one or more food groups, which can lead to an imbalance of essential nutrients in their diet (Bratman & Knight, 2000; Moroze, Dunn, Holland, Yager, & Weintraub, 2015). In some cases, this dietary imbalance becomes so severe that it causes serious medical complications in the long term (Park, et al., 2011; Moroze et al., 2015). Weight loss, sometimes quite significant, is also an observed consequence of the restrictive eating characteristic of ON (Moroze et al., 2015). It is not clear, however, whether weight and body image dissatisfaction is perhaps a driving force behind the adoption of an extremely pure, rigidly healthy way of eating (Gleaves et al., 2013). In fact, many have observed that body image issues are not as dominant in ON as they are in AN or BN (Ramacciotti et al., 2002; Bratman & Knight, 2000; Brytek-Matera, 2012; Moroze et al., 2015).

Whether weight or body image issues are present in ON or not, many have noted the similarities between ON and eating disorders, such as AN and ARFID (Bratman & Knight, 2000; Mathieu, 2005; Brytek, 2012; Moroze et al., 2015). Bratman (1997) originally conceptualized ON as being under the umbrella of eating disorders, as the primary behaviour, much like in AN, involves controlling one's food intake in a way that results in an unbalanced life (Bratman & Knight, 2000). Others, however, suggest that perhaps ON does not need its own diagnosis as an eating disorder, but can instead be conceptualized as a problematic eating behaviour that could develop into a more severe eating disorder, like AN or BN (Mac Evilly, 2001; Segura-García et al., 2015). Still, other researchers have noted that there are many similarities between ON and obsessive-compulsive disorder (OCD), and suggest that it may indeed be a sub-type of OCD specifically related to food and eating (Arusoğlu, Kabakçi, Köksal, & Merdol, 2008; Bratman & Knight, 2000; Koven & Senbonmatsu, 2013).

While no real consensus about the categorization of ON has been reached, researchers have made some notable progress. For example, Moroze et al. (2015) and Dunn and Bratman (2016) have each proposed sets of diagnostic criteria for ON, and a group of Italian researchers developed an assessment tool called the ORTHO-15 (Donini, Marsili, Graziani, Imbriale, & Cannella, 2004) which consists of 15 multiple choice questions based on Bratman and Knight's (2000) original description of ON. Essentially, the questions assess for the presence of fanatically healthy eating habits by having participants rate a list of food groups according to how healthy or unhealthy they perceive them to be (Donini et al., 2004). Since the ORTHO-15 questionnaire does not measure the obsessive-compulsive traits of ON it is often used in tandem with another measurement tools such as the Minnesota Multiphasic Personality Inventory (MMPI) (Donini et al., 2004) or the Maudsley Obsessive Compulsive Inventory (MOCI) (Koven & Abry, 2015).

While two other assessment tools have been used in academic studies, including the Dusseldorf Orthorexia scale (DOS) (Barthels, Meyer, & Pietrowsky, 2015) and the Eating Habits Questionnaire (EAQ) (Gleaves et al., 2013), the ORTHO-15 is certainly the most widely used, and many have employed it in an attempt to assess the presence and prevalence of ON in various populations (Alvarenga et al., 2012; Ramacciotti et al., 2011; Brytek-Matera, Donini, Krupa, Poggiogalle, & Hay, 2015; Herranz Valera et al., 2014). There have been, however, questions around the validity and psychometric properties of the ORTHO-15 (Dunn & Bratman, 2016; Koven & Abry, 2015), which will be discussed in chapter 3.

Due to the lack of consensus around diagnostic criteria and assessment tools for ON, its prevalence remains unknown to this day. One Italian study of adults from various professions found the prevalence of ON to be 6.9% (Donini et al., 2004), though Bratman and Knight's (2000) first-hand account of observing several patients presenting with ON behaviours suggests that rates may be higher in the United States. Specific demographics, such as dietitians (Kinzl, Hauer, Traweger, & Keifer, 2006) and performance artists (Aksoydan & Camci, 2009) have been shown to have a greater proportion of ORTHO-15 scores pointing towards obsessive healthy eating habits, with results from a study of Brazilian dieticians reporting that 81.9% have orthorexic behaviours (Alveranga et al., 2012). While an accurate picture of the prevalence of

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ON will come when official assessments and diagnostic criteria are developed, these studies strongly suggest that ON behaviours are not uncommon.

Anorexia Nervosa

In contrast to ON, AN is a DSM-classified eating disorder in which the individual suffering restricts food intake leading to weight loss and deterioration of physical health (American Psychiatric Association, 2013). AN is typically marked by a strong fear of weight gain, a distorted perception in the way one experience's their body's weight and/or shape, and in many cases, a failure to recognize the serious consequences that a low body weight can have (American Psychiatric Association, 2013). Individuals presenting with AN commonly engage in excessive exercise in addition to restrictive eating and dieting behaviours in order to prevent weight gain; they may also engage in binge eating and purging behaviours, such as overuse of laxatives or self-induced vomiting (American Psychiatric Association, 2013).

There are indeed some striking similarities in symptoms between AN and ON (Koven & Senbomatsu, 2013). Researchers have noted that like individuals presenting with AN, individuals with ON have a strong tendency towards perfectionism (Fidan, Ertekin, Işikay, & Kirpinar, 2010; Mathieu, 2005), high trait anxiety, and a strong need for control (Fidan et al., 2010). Similarly, both anorexic and orthorexic individuals tend to be achievement-oriented and view their commitment to dietary restriction as a mark of successful self-control (Koven & Abry, 2015). Bratman and Knight (2010) also observed that individuals presenting with ON and individuals with AN both seem to have very little insight into their behaviours and often deny their destructive quality. It is worth noting, however, that it is possible that individuals with ON

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and AN do indeed have insight into the destructive nature of their eating behaviours, but deny it in hopes that their behaviour will not be confronted by others.

While there may indeed be significant overlap between AN and ON, the main difference between the two seems to be the motive. While those struggling with AN are typically motivated to control their eating habits in order to manipulate their body shape and size, except in the case of atypical anorexia in which weight concerns may not be present (American Psychiatric Association, 2013), those struggling with ON appear to be motivated by the desire to improve their physical health (Bratman & Knight, 2000). Thus, generally speaking, in AN, the focus on food tends to be more quantitative, while with ON it appears to be largely qualitative (Bratman & Knight, 2000). This difference can be illustrated by common food choices made by individuals with AN and ON. For instance, while individuals with AN typically favor low-calorie foods such as artificial sweeteners, an individual struggling with ON would be likely to vehemently avoid such processed products (Chaki, Pal, & Bandyopadhyay, 2013; Getz, 2009). Furthermore, those with AN tend to hide their behaviours, while those presenting with ON are much more likely to flaunt their healthy eating habits (Bratman & Knight, 2000). Despite these differences, however, many physicians and mental health practitioners believe ON to simply be a form of AN (Chaki et al., 2013).

Bulimia Nervosa

Bulimia nervosa (BN) is another DSM-classified eating disorder, though unlike AN, it is characterized by frequent binge eating which is followed by behaviours that compensate for food intake (American Psychiatric Association, 2013). These compensatory behaviours, which are used for weight loss, commonly include self-induced vomiting, overuse of laxatives and diuretics, periods of fasting, and compulsive exercise. Significant body image disturbance is often present in those struggling with BN (American Psychiatric Association, 2013).

While the existing literature on ON fails to compare ON and BN, there may indeed be some similarities, particularly in the urge for using compensatory behaviours. While individuals struggling with BN may use enemas or fasting in attempts to lose weight and compensate for a binge, those with ON have been known to use the same behaviours but with different motivations (Bratman, 2000; Byrtek-Matera, 2012; Herranz Valera et al., 2014). Though they may not be concerned about weight gain, compensatory behaviours may be used by those struggling with ON with the belief that they will purge the body of toxins, for instance, after eating a food that does not meet their standards for purity and health.

Avoidant/Restrictive Food Intake Disorder

Like AN and BN, avoidant/restrictive food intake disorder (ARFID) is a DSM-classified eating disorder. ARFID is, however, a broader eating disorder category as it is characterized by any eating disturbance that prevents one from meeting their nutritional needs (American Psychiatric Association, 2013). Eating disturbances can be caused be a number of things, from a concern about a negative consequence of eating (ie. choking), to difficulties with the textures and flavours of food, to emotional disturbances, and are not due to another medical (ie. food allergies, esophageal problems) or mental health issue. Individuals with ARFID typically present with one or more of the following symptoms: marked weight loss, nutritional deficiencies, problems with psychosocial functioning, or dependence on supplements or enteral feeding (American Psychiatric Association, 2013). As one can probably tell by the vast and varied eating and restricting behaviours that ARFID encapsulates, ARFID was likely conceptualized as a group of eating disorders within which there are specific subgroups (Moroze et al., 2015). Moroze et al., (2015) suggested that ON may indeed become a subgroup of ARFID in the future. While ARFID can present very differently among individuals, some examples include refusing to eat foods from a certain brand or restricting an entire food group. Furthermore, true to ARFID's definition, many individuals presenting with ON struggle psychosocially but do not seem to experience body image dissatisfaction. Given these examples, one could see how ON symptomatology could potentially be a specific manifestation of ARFID.

Upon closer examination, however, there are aspects of ARFID that may not fully encapsulate the image of ON that the research has painted. For instance, the DSM-5 specifies that ARFID is much more common in young children than it is in adults (American Psychiatric Association, 2013), while ON seems to be predominant among adolescents and young adults (Bratman & Knight, 2000). Furthermore, the criteria for ARFID state that the restrictive eating behaviours in question cannot be associated with a "culturally sanctioned practice" (American Psychiatric Association, 2013, p. 334). In ON, however, many of the common restrictive eating behaviours, like carbohydrate restriction or the avoidance of fruits and vegetables grown with the use of pesticides, are indeed sanctioned in our current cultural climate. Whether or not ON fits into this category, however, is of lesser concern than helping the individuals who are suffering.

Other Specified/Unspecified Feeding or Eating Disorders

Like the eating disorders mentioned above, other specified feeding or eating disorder (OSFED) and unspecified feeding or eating disorders (UFED) are broad diagnostic categories in

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the feeding and eating disorder section of the DSM. OSFED refers to a collection of disordered behaviour with specific presentations, including atypical anorexia, bulimia nervosa of low frequency and/or limited duration, binge-eating disorder of low frequency and/or limited duration, purging disorder, and night eating disorder (Amercian Psychiatric Association, 2013).

UFED, however, refers to any clinically significant disordered eating presentation that causes social and emotional distress, as well as impairment in normal functioning, that does not meet the full criteria for another eating disorder diagnosis (American Psychiatric Association, 2013). While ON has not been formally assigned to the OSFED or UFED category, it has been suggested that it fits into the UFED category (McAtee, 2017).

Obsessive-Compulsive Disorder

Like AN and ARFID, obsessive-compulsive disorder (OCD) is a diagnosable mental disorder in the DSM-5, though it is not classified as an eating disorder. Briefly, OCD is characterized by the presence of either obsessions, which are recurring, intrusive thoughts, and compulsions, which are repetitive behaviours performed in response to an obsession in attempts to reduce anxiety (American Psychiatric Association, 2013).

Research has pointed towards the similarities in symptomatology between OCD and ON (Koven & Abry, 2015; Koven & Senbonmatsu, 2013), and some have even suggested that ON could be considered a form of OCD (Mathieu, 2005). Koven and Senbonmatsu (2013) reported that individuals with ON experience obsessive and intrusive thoughts about food and health, as well as fears of contaminating their bodies, to which they respond by compulsively controlling the kind of food they eat. Furthermore, individuals presenting with ON, much like those with OCD, often find that their days are consumed by their thoughts about food and health, as well as

food preparation in accordance to their eating style, which can interfere with other activities (Donini et al., 2004).

One stark difference between ON and OCD, however, is how the individual suffering experiences their obsessions and compulsions. While obsessions experienced by a person with OCD are considered ego-dystonic, that is, they are distressing because they are not in alignment with one's self concept, obsessions experienced by an individual presenting with ON are interpreted as normal and acceptable (Koven & Senbonmatsu, 2013). Since the obsessions and compulsions about health and food in ON align with the individual's values, it can be very difficult for individuals to recognize they have a problem (Bratman & Knight, 2000).

Looking Forward

Having a general understanding of the above terms helps to conceptualize and contextualize ON before delving into it deeper in the coming chapters. The next chapter entitled "An Orthorexic Culture: Wellness and Beyond" will explore ON at the macroscopic level, evaluating the health-obsessed culture we live in and the role it plays in creating and perpetuating an obsession with healthy eating. The following chapter, "Orthorexia and the Individual", will provide a literature review of some of the risk factors that may make some people more prone to developing ON. Next, in chapter four, "Therapeutic Considerations for Orthorexia", will explore the current literature on treating ON, and will provide therapists and counsellors with insight into how they can help clients who are struggling with ON. The final chapter will then provide a brief synopsis for each of the chapters and will highlight key takeaways for practitioners.

Chapter Two: An Orthorexic Culture: Wellness and Beyond

It is no measure of health to be well adjusted to a profoundly sick society.

—Krishnamurti

The impact of culture on eating disorders has been an area of interest in academic research for several decades. Bruch (1962) was the first to propose that the thin ideal favoured in many Western societies could be a contributing factor to the development of anorexia nervosa (AN). Indeed, a cultural shift in the desired aesthetic of women from a soft, curvy body to the "tubercular look" that came into vogue in the early and mid 19th century (Sontag, 1978) preceded the inaugural recognition of AN as medical disorder in the late 19th century (Silverman, 1997). Since then, the media's role in perpetuating this thin ideal, which has only become more extreme since the 19th century, has been a focus in much of the literature around eating disorders and culture (Becker and Hamburg 1996; Stice, Schupak-Neuberg, Shaw, & Stein 1994; Wolf, 2002).

There is evidence, however, that behaviour resembling modern day eating disorders predated the thin ideal and the rise of modern media. Asceticism, the extreme avoidance of self-indulgence in many ancient Eastern religions, took one form of self-starvation, which Bemporad (1996) claimed resembled anorexic behaviour. Similarly, examples of women engaging in self-starvation with the aim of achieving sainthood in the Renaissance and Middle ages have been documented (Bell, 1985). These historical examples of food-restrictive behaviours demonstrate that eating pathology indeed appeared to be bound within sociocultural values and belief systems throughout history (Miller & Pumariega, 2001). While there is much historical evidence to support the idea that eating disorders are indeed culturally bound, these disorders are still largely thought of and written about in medical literature as "anomalous marginal behavior" (Wolf, 2002, p. 5) that can be attributed to aspects of an individual, such as their tendency towards perfectionism or a personal crisis. While the role of culture is often acknowledged, we continue to pathologize individuals with eating disorders without fully situating their behaviour in the context of a society that can itself be pathological in many ways.

This is especially true in the case of orthorexia nervosa (ON), as much of the literature on the subject focuses on the individuals suffering with ON while largely neglecting the sociocultural context in which this disordered eating behaviour occurs (Håman et al., 2015).While the link between culture and ON is undeniable, perhaps one of the reasons the relationship has been grossly underestimated (Håman et al., 2015) is because it is incredibly complex. Therefore, the aim of this chapter is to uncover and explore the cultural forces that promote and sustain ON in order to better understand ON outside of its current medicalized discourse. These cultural forces will include the medicalization of society, the rise of the holistic health industry, the emergence of "healthism" as an ideology that links health to morality and responsibility (Crawford, 1980), the pervasiveness of diet culture, our modern food system and food culture, and social media.

Medicalization and Healthism

The Pervasiveness of Medicine

To begin the exploration of the cultural forces contributing to ON, it is important to understand the role of medicine and its ubiquity in our modern society. There is no doubt that the medical field has enormous influence in our Western society, shaping the way we understand illness and health and influencing our health-driven habits and behaviours (Crawford, 1980). According to Crawford (2006) "in modern societies, the meaningful practice of health is inextricably linked to the science, practice and layered meanings of biomedicine" (p. 403). Health, therefore, is always viewed through a medical lens.

The individualization of illness is one of the main tenets of our medicalized culture that influences our assumptions about health. The dichotomy of health and illness, and the understanding of illness primarily as an individual problem, rather than problems rooted in society, the economy, or politics, are medicalized ideas. Using this medicalized logic, treatments must take place at the site of illness—the individual body or the individual brain, which have historically been viewed as distinct entities in Western medicine (Crawford, 1980). This is important because this lens frames much of the literature on ON, viewing it as an issue rooted in the individuals suffering and attributing the struggle to a personal tendency towards something hardwired in their biology, like obsessive-compulsive behaviours (Koven & Senbonmatsu, 2013) for instance. Arguably, the medicalized discourse in which ON is understood may be a factor in its very etiology.

A Brief History of Medicalization

We live in an age in which we are continually inundated with medical messaging telling us that health is the most important value in our lives (Crawford, 2006). This, however, was not always the case. Throughout the first half of the 20th century, in fact, the field of medicine was mostly concerned with issues of illness and death and had little interest in health (Dunn, 1959). This began to change in the 1950s when the World Health Organization broadened its constitutional definition of health, stating that "health is a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity" (World Health Organization, 2006). This definition effectively increased the power that the medical institution had by extending its jurisdiction to include social phenomena that were decidedly health-related (Crawford, 1980; Crawford 2006). Furthermore, it promoted an aspirational and unattainable image of health (Crawford, 1980).

Following the World Health Organization's new definition of health, the medical establishment nonetheless became increasingly interested in the realm of health and wellness and the factors associated with optimal health (Dunn, 1959). Driven by factors such as plummeting death rates, rising life expectancies, and the stressors of modern life, doctors and scientists began studying the various factors of health and promoting their findings to the public (Dunn, 1959). Such findings included information about personal health risks and hazards (Crawford, 2004), revealing the ill-effects of environmental degradation on human life and the presence of cancer-causing agents in food and household products (Crawford, 2006), for instance. These findings prompted the politicization of health, and governmental agencies became responsible for health and safety regulation, continuing to uncover and report on health hazards (Crawford, 2006).

While the pursuit of health had been an aspect of human life for hundreds of years (Crawford, 2006), it became increasingly important over the next several decades, thanks to this newfound information concerning human health and mounting controversies surrounding it. Naturally, out of this climate grew a strong undercurrent of distrust and anxiety that infiltrated North American society (Crawford, 2006). Many people, particularly those in the middle classes who had the financial means, became increasingly informed about medical and health information and took to modifying their diets and lifestyles in order to avoid the newly uncovered risks to their health and thus be protected from illness and untimely death (Crawford, 2006).

Together, several factors, including the medicalization of society, the changing face of medicine to encompass health and wellness promotion, the growing risk discourse surrounding human health (Crawford, 2004), and the rise of lifestyle modifications to protect health, created the perfect climate for a new ideology to emerge. This ideology, which would be named healthism, situated health problems and solutions within the realm of individual control and advertised the pursuit of health as a moral obligation (Crawford, 2006), thus creating a culture in which ON could flourish.

Healthism Defined

One of the few articles specifically discussing the sociocultural aspects of ON highlights healthism as an ideology that is inextricably linked to orthorexic behaviour (Håman et al., 2015). The term healthism, coined by Robert Crawford in 1980, refers to "the preoccupation with personal health as a primary—often *the* primary—focus for the definition and achievement of well-being; a goal which is to be attained primarily through the modification of life styles, with or without therapeutic help" (p. 368). Through the lens of healthism, issues of health and disease are perceived as being within the realm of individual responsibility, with good health being viewed as a state of total well-being that can be achieved through individual effort and discipline (Crawford, 1980). As Crawford (2006) so eloquently stated, with the emergence of healthism,

"the pursuit of the good life became reinvented as a quest for health" (p. 411). This is clearly seen in individuals struggling with ON, as their health becomes the main focus of their lives.

The discourse of healthism is rampant in our culture, being that it is "the most popularly promoted discourse around health and fitness in the media" (Lee & MacDonald, 2010). Achieving a state of good health, this discourse suggests, requires a conscious effort specifically with respect to controlling the body's size and shape (Crawford, 1980), a message that women, as Welsh (2011) argued, are especially primed to receive and internalize given the influence of diet culture, which will be discussed in more detail later.

Of course healthism is inextricably linked to consumerism as well (Greenhalgh & Wessely, 2004), as it promotes the idea that certain behaviours, practices, and products, which require financial resources, are essential to achieving good health. Greenhalgh and Wessely (2004) argued that those who have internalized healthism employ nutritional supplements and natural alternative medicine and are concerned over unseen chemicals in food, clothing, and furniture. They are also found frequently researching and obtaining health information, making healthy lifestyle choices like eating whole, fresh foods, avoiding alcohol, detoxifying the body, and exercising (Greenhalgh & Wessely, 2004). Interestingly, individuals struggling with ON organize their lives around these central tenants of healthism, causing some to consider ON as a form of healthism (Brytek-Matera et la., 2015).

A Brief History of Healthism

In order to better understand healthism and its relationship to ON, a historical look at how healthism came to be and how it has evolved over the decades is necessary. Healthism emerged in contemporary North American culture in the 1970's, a time of great social and institutional

change, especially in the realm of healthcare and health consciousness. The deep political disillusionment of the 1960s initiated a shift away from blind trust in institutions and towards self-empowerment (Crawford, 1980). This, coupled with the demand for more efficacious medical treatment options for chronic health conditions, like cancer and heart disease, led to a reorganizing of the traditional hierarchical doctor/patient relationship (Greenhalgh & Wessely, 2004) and the weakening of the allopathic medical establishment which was perceived as falling short when it came to the management and prevention of these illnesses (Crawford, 1980).

Furthermore, allopathic medicine's heavy reliance on pharmaceuticals and its failure to consider the social and environmental aspects of health and disease created a need for a more holistic model of healthcare. The socioeconomic uncertainty of the 1970s, the aforementioned change in the WHO's definition of health, and the plethora of information on health hazards led to a desire amongst the public to exert more control over personal issues, like health. This, in turn, led to the rise of the self-care and holistic health movements. At this time, holistic modalities such as naturopathic medicine, Chinese medicine, and nutritional therapy grew in popularity (Crawford, 1980), giving rise to a massive holistic health industry.

This burgeoning industry changed the way in which health and illness were viewed. Patients receiving holistic health care were encouraged to take an active role in their healing process "and to exert self-responsibility" (Crawford, 1980, p. 366) by implementing dietary and lifestyle alterations, for example, which greatly contrasted the passive role patients played in allopathic treatment (Crawford, 1980). Furthermore, unlike allopathic medicine, holistic health understood illness not purely as a physical imbalance, but as a combination of emotional, mental, and spiritual imbalances as well (Crawford, 1980). According to Bratman and Knight (2000),

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however, despite the intention to focus on truly holistic health, many alternative practitioners did and still do have an "exaggerated focus on food" (p.8)—a point that is important to remember as it has implications for ON.

Holistic health's perspective of illness and health was (and is) nonetheless very much medicalized in that the individual remained the locus of treatment. Interestingly, however, by employing treatment interventions that often require individual change and responsibility, (ie. change of diet, change of activity levels, change of mindset) holistic health conveyed "an assumption of individual blame as well" (Crawford, 1980, p. 378). While it may admit that factors contributing to illness (such as the Standard American Diet) can originate outside of the individual, solutions are viewed as being a matter of individual choice (Crawford, 1980).

If solutions to health problems are framed as being an individual choice, however, then morality is implicated in one's decisions and behaviours. In the climate of healthism, changing one's diet to manage an autoimmune disease, for instance, then, would be viewed as the correct or moral choice, while refusing to change one's behaviour may be seen as immoral (Conrad, 1994; Crawford, 2006; Håman et al., 2015).

While holistic health certainly strengthened the bond between morality and health, it is important to point out that allopathic medicine also employed, and still employs, healthism discourse in very covert ways. Perhaps the most notable example of healthism discourse represented in allopathic medicine can be seen in the area of weight management and obesity (Lee & MacDonald, 2010). As Welsh (2011) so eloquently explained,

It is immoral to be fat because the guiding idea of the war against obesity is that obesity is preventable. It is possible to not become obese; if one does become obese, then one has failed to moderate one's behaviour appropriately. The argument appears to be that obesity is pathological because it is inherently irrational not to do things that are good for your health and to do things that are bad for your health." (p. 36)
Indeed, this example strikingly illustrates the way that healthism discourse is employed in mainstream medical messaging.

The pursuit of a healthy body as moral obligation promoted by both allopathic medicine and holistic health forms the foundation of healthism as we know it today. One of the consequences that came out of this healthism ideology was the immense pressure felt by individuals in our society to be healthy (and by association, thin). Perhaps it should be no surprise, then, that individuals have developed ON behaviours in response to such pressures (Håman et al., 2015). As healthism makes the body into a metaphor for health (Tiggeman & Zaccardo, 2018), and deems good health a moral imperative, people obediently engage in the strict bodily control in the name of health, and for some, it becomes a fixation (Bratman & Knight, 2000).

Diet Culture and Food Systems

Diet Culture Discourse

Diet culture is yet another aspect of our society with an intense focus on the body and a prescriptive approach to food and body. Perhaps without surprise diet culture, which "makes us think of ourselves as sick" (Wolf, 2002, p. 200), is inextricably linked to the discourse of healthism, and perpetuates the idea that our bodies, especially women's bodies, need to be manipulated and fixed. Indeed, in the past decade or so, we can see that diet culture is employing

healthism discourse to "highlight diets as healthy lifestyles rather than diets as merely providing women with the ability to look better in their swimsuits" (Welsh, 2011, p. 35).

Interestingly, similar to diet discourse, research (Burrows, Wright, & Jungersen-Smith, 2002; Rich, Holroyd, & Evans, 2004; Evans, Rich, Davies, & Allwood, 2008) has shown that healthism discourse actually promotes unhealthy practices related to body, health, and food. Furthermore, both diet and healthism discourse are also related to obesity discourse, as they both place body weight, size, and shape in the realm of individual responsibility (Lee & MacDonald, 2010). With all of these discourses overlapping and reinforcing each other, it is no wonder that food has become such a focal point in our modern culture.

We are constantly being bombarded with diet culture's imaging that celebrates thin bodies and promotes extreme dieting practices (Bordo, 1995). While the insidiousness of diet culture and its representation in media has been widely researched, less attention has been paid to the damaging ways in which medical and nutritional public health have reinforced diet culture (Austin, 1999). In fact, by aligning with harmful messages from diet culture equating thinness to health or deeming certain foods to be healthy and others to be harmful, medical and nutritional public health add a level of credibility to a severely harmful diet discourse that is heavily implicated in eating disorders (Austin, 1999).

A Brief History of Diet Culture

Nutritional science's earliest contribution was the study of thermodynamics and the subsequent conceptualization of the calorie in the early 1900s, which changed the way we related to food (Austin, 1999). Counting calories was subsequently encouraged by medical physicians as a way to control and manage one's food intake and weight, especially for women (Turner, 1982).

Doctors began to record and manage patients' weight at appointments, and would regularly inform patients of their ideal weight (Brumberg, 1989). By the 1920s, kitchen and bathroom scales became household fixtures, and women were encouraged to engage in weighing themselves and their food regularly (Schwartz, 1986). This, in combination with the thin ideal of the early 1900s created a culture of weight and body obsession, which is known as diet culture today.

Perhaps not coincidentally, diet culture, under the guise of medicine and nutritional science, really began to establish a firm grip on the minds of many women around the time that women were afforded the right to vote (Wolf, 2002). This continued until WWII, when economic uncertainty, food insecurity, and women entering the workforce en mass quelled diet culture's messaging. Interestingly, after the war diet culture underwent a significant change (Austin, 1999). While prior to the war adult women were the target audience, adolescent girls became a target as well, which resulted in dieting becoming rampant among this population. It was at this time, in fact, the incidence of eating disorders began to rise rapidly (Austin, 1999). It seemed, then, that the ill effects of diet culture were seen increasingly in periods of history when women's roles underwent transformation and in times when cultural change was rampant (Bemporad, 1996; Miller & Pumeriega, 2001).

Moving forward into the 1950s and 60s, medical and nutrition public health continued to perpetuate the idea that women's weight could be managed through the right nutrition information and calorie counting (Austin, 1999), while ideal body sizes portrayed in the media continued to shrink (Wolf, 2002). Unfortunately, the claim that the antidote to being overweight

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and obese was the nutritional information and restricting calories was actually false (Dwyer Feldman, & Mayer, 1967).

A prominent study (Dwyer et al., 1967) disproved both of these points, as it showed that the people the medical establishment labelled as obese and overweight actually consumed the same amount of calories as people of a medically defined normal weight. Furthermore, the study showed that those who were categorically obese and overweight actually had more nutrition knowledge than those at a normal weight. Since then, as Austin (1999) explained, several studies have supported the results of the Dwyer et al. (1967) study (Baecke, Staveren, & Burema, 1983; Braitman, Adlin, & Stantin, 1985; Dreon et al., 1988; Keen, Thomas, Jarrett, & Fuller, 1979; Kromhout, 1983), but biomedical and nutritional public health continued its crusade against individuals living in larger bodies—a crusade that continues to this day.

While calorie counting eventually became less popular by the 1980s, nutrition science continued to present a never ending menu of foods and food groups that were considered harmful to human health and linked to excess bodily fat (Austin, 1999). Dietary fat was the demon of the 80s (Austin, 1999), for example, while processed foods became the devil in the early 2000s with the popularization of the whole foods movement (Pollan, 2008). Needless to say, diet culture was quick to get on board, producing multiple fad diets—from the Atkins diet, to Ketogenics, to the Paleo diet—playing on such trends.

Nowadays, dieting has become a mainstream behaviour among both women and men, though it is important to acknowledge that diet culture and nutritional science primarily targeted and affected women for many years. As Wolf (2002) poignantly claimed, "dieting is the essence of contemporary femininity" (p. 200). Unfortunately, despite modern women having more power and recognition in the public sphere than ever before, they arguably feel worse about their physicality (Wolf, 2002). With every ounce of power and control women gain in our modern world, diet culture successfully takes it away by perpetuating unattainable food and body ideals (Wolf, 2002).

The Modernization of Food and Food Culture

Inextricably linked to diet culture is the modernization of food and our changing food culture. As we know, how and what we eat has transformed quite dramatically in the past 100 years. The global mass-production and dissemination of food has replaced local agricultural systems, genetically modified organisms have been introduced, and the heavy use of man-made pesticides is regular practice. Furthermore, food allergies are on the rise (Centers for Disease Control and Prevention, 2008) and individual food preferences have largely replaced familial food rituals (Rangel et al., 2012). All of this has given rise to concern about the impact of our food system on human health and the health of our planet among scientists, journalists, and the lay public (Nicolosi, 2007; Rangel et al., 2012).

While food and eating used to be a ritualized event that took place in a family or community setting, that has changed dramatically in recent years. While it was a North American custom for adolescents to take daily meals with their families, our hectic modern schedules often do not allow for this. Without parental supervision, we are not being socialized in the same ways we once were when it comes to food and mealtimes. One of the consequences of the dissolution of the family mealtime is that individuals have a high degree of autonomy around their own food choices from a much younger age (Rangel et al., 2012). This dietary autonomy, when combined with the bombardment of unhealthy messages around food, health, and body from media and social media, has been shown to create confusion and anxiety around food, specifically for adolescents (Ragel et al., 2012). Of course, the lack of supervision around food and mealtimes conceivably makes it easier for individuals to adopt orthorexic eating behaviours that go unnoticed.

While how we eat has changed a great deal, what we eat has too. According to Nicolosi (2007) this is largely because the culinary order that once existed in our society has been diffused. There is no longer a clear notion of what a healthy diet looks like, there is little transparency in the food industry, and the gap between food producers and consumers is ever increasing. All of these factors, together with the use of biotechnologies in the food industry to create food-like products, have created strong ambivalence in the public. This, along with the individualistic nature of the dominant ideology of healthism, has contributed to a climate that has enabled ON to emerge and proliferate (Nicolosi, 2007).

Navigating food choices in this modern food climate can be incredibly confusing and anxiety-provoking. While on the one hand we are being bombarded with contradictory messaging about what foods are healthy and unhealthy and safe or unsafe, we also have the personal responsibility of navigating the food industry in order to make responsible dietary choices (Rangel et al., 2012). We may have more freedom and choice when it comes to our food now than ever before, but there is immense pressure to choose our food well. Through the lens of healthism, if we do not choose well, then we as individuals are responsible for the consequences. This sense of risk that accompanies most if not every food choice we make results in increased anxiety around food (Rangel et al., 2012).

The disorder in the discourses around food and health creates disorder in the human psyche, naturally leading to a craving for order when it comes to food. In efforts to manage these feelings of confusion and anxiety around food choices, Rangel et al. (2012) found that women and girls continually seek more information regarding food, health, and nutrition and attempt to find a semblance of culinary order and control over their diets. When information seeking proves to be too overwhelming individuals are likely to turn to diet and weight loss programs for the structure and sense of order around food they can provide (Rangel et al., 2012), implicating diet culture. Unfortunately, however, both of these responses can lead to an increased risk of ON. Individuals with a greater degree of food and nutrition knowledge are more likely to develop ON (Bratman & Knight, 2000), and dieting, which typically only ends up providing a short-lived semblance of order around food, has shown to lead to the development of eating disorders (Miller & Pumariega, 2001). Perhaps not ironically, disordered eating is undertaken to fit into a disordered society (Wolf, 2002) and a disordered food culture.

Food Information Gathering in the Age of Social Media

The modernization of food and food culture, the constant health threats we hear about certain food from nutritional science and diet culture, and the personal responsibility we feel to be healthy, are all factors that contribute to our confusion around food. While the internet has made an endless amount of information about food and health available to us with the single click, much of it is misleading, false, or outdated (Koven & Abry, 2015). Unfortunately, internet users searching for health-related information online frequently fail to consider the validity of sources or how recent the information is before accepting it as truth (Morahan-Martin, 2004).

This is especially true when it comes to finding accurate information about food. As Mac Evilly explained, "the public is unsure whom to trust when it comes to advice about health and, with numerous food scares fresh in our minds, for some, every food choice is perceived as a constant battle" (Mac Evilly, 2001, p. 275). The plethora of conflicting information about what foods are healthy and safe to eat and which ones are not, make attempting to navigate information about healthy eating seem futile (Rangel et al., 2012), again, provoking anxiety. One of the consequences of this is that anxiety and fear become the driving force behind dietary changes, and people often cut foods out of their diet in compliance with the information they have consumed. Unfortunately, though, removing foods from the diet has the potential to cause harm (Mac Evilly, 2001) both physically and psychologically.

The potential for information entrenched in healthism to cause physical or psychological harm is amplified when health and diet information is consumed through certain social media platforms (Koven & Abry, 2015). Instagram, a social networking service (SNS) on which users can post photos, like and comment on others' photos, and use hashtags (# symbol) to categorize photos and tag other Instagram users, has been shown to engage with healthism and diet discourses, and even encourage ON behaviours (Santarossa, Lacasse, Larocque, & Woodruff, 2018; Turner & Lefevre, 2017). In fact, high Instagram use has been shown to be associated with a greater incidence of ON symptoms (Turner & Lefevre, 2017).

Harnessing the power of images, health food "influencers", those who have a large Instagram following, commonly post photos of what they deem to be healthy food, offer health and diet advice to followers, and promote their eating philosophy which often takes the form of restrictive diets (ie. Paleo, vegan, low-carbohydrate, etc.) (Santarossa et al., 2018). As Crawford (1980) explained, "in healthism, healthy behaviour has become the paradigm for good living. Healthy men and women become model men and women" (p. 380), which is exactly how we can think of these "influencers". These influencers are often perceived as experts in matters of food and health and are therefore trusted (Marsh & Campbell 2016), making followers more likely to mimic their food and fitness behaviours (Turner & Lefevre, 2017). Furthermore, because Instagram users choose who to follow, they are selectively exposed to certain types of food behaviours and may come to view such behaviours as being rather common (Turner & Lefevre, 2017).

Unfortunately, however, many food influencers on Instagram do not have formal training in nutrition (Turner & Lefevre, 2017), and many promote, albeit probably unknowingly, disordered and restrictive behaviours with food. The consequences for this are huge, as Turner and Lefevre (2017) found that ON was prevalent in 49% of health food influencers in their study. It is not difficult to imagine how easy it may be if one is already feeling anxious about their body and their health to adopt unhealthy food behaviours without question, and soon find themselves struggling with ON.

Implications of Culture on Health and Eating Behaviours

Today we live in a highly medicalized, healthist society with a rampant diet culture, a rapidly changing food system, and an endless supply of questionable information about health and food. Considering this, is it any wonder that people are struggling with ON? In such a society we are continually inundated with information about the many insidious threats to our health and the practices we should be undertaking to improve our health in the face of threat. Between the health guidelines promoted by the allopathic field and the adoption of new

behaviours around food and fitness touted by holistic health and diet culture, health is no longer simply about the absence of illness or even the act of illness prevention, rather it is "a central focus of all parts of our lives" (Cheek, 2008, p. 974) that heavily implicates food and body shape and size.

Unfortunately, the interconnecting discourses of medicine, holistic health, healthism, diet culture, food culture, perpetuated by mainstream and social media, entice us to believe that by making our health and fitness into a personal project of self-improvement, we can transcend health risks and free ourselves from feelings of fear about our health. As Farkas (2010) explained, for example, wellness publications, which inevitably employ healthism discourses and diet culture, sell the idea that striving for better health will undoubtedly lead to having a greater sense of control, more agency, and less anxiety around our health and in our lives in general. While one may argue that any feelings of anxiety or concern that arise from learning about health risks will be offset by the power we gain through health knowledge (Farkas, 2010), this does not seem to be the case.

The problem, however, is that the more we consume information about health, the more attainment of health seems to elude us (Cheek, 2008). The paradox of the medicalized society we live in, with it's rampant risk discourse around health and illness, is that the very information we receive about threats to our health that is supposed to calm our anxieties actually creates more anxiety because we simply cannot control all of the threats (Crawford, 2004). This point was illustrated in a study by Rangel et al. (2012) in which participants reported that continual exposure to information about food risks, coupled with their inability to know or control what was in their food, resulted in increased anxiety. This "*escalating spiral of control and anxiety*"

(Crawford, 2004, p. 506) is what defines our medicalized society that is obsessed with food, health, and body. Interestingly, and not coincidentally, the self-perpetuating relationship between control and anxiety is a key feature in ON.

This spiral of anxiety and control can perhaps be explained using the lens of Maslow's hierarchy of needs. Greenhalgh and Wessel (2004) used this model to explain how individuals engage with discourses of healthism, though it could easily extend to how individuals engage with discourses of diet culture. According to Maslow, the authors explained, the experience of self-actualization inherently perpetuates the desire for more. While the discourse of healthism reaches all classes, the ability to pursue personal health, and to pursue diet and weight loss programs, is mostly a middle class luxury. Interestingly, in this social class that, generally speaking, has many of their physiological, safety, love, and esteem needs met, the insatiable desire for self-actualization is strong. This explains why individuals, particularly of the middle class, pursue perfection in health and body so adamantly and are seemingly never satisfied with medical information (Greenhalgh & Wessely, 2004)—or with the size and shape of their bodies, for that matter. Perhaps more significantly in relation to ON, Maslow's model could explain why the quest for self-actualization through seeking perfection through food, health, and body, which can never actually be attained, becomes self-perpetuating.

Though healthism, and by extension diet culture, are pursued most vehemently by those belonging to the middle and upper classes (Crawford 1980), the discourses of healthism and diet culture have been shown to impact lower socioeconomic classes as well, thanks to mainstream and social media. Lee and MacDonald (2010) found that young girls in poorer rural regions of Australia had internalized healthism, as they equated feeling good with being thin, and feeling bad with being fat. Many of the girls also conflated health with weight, understanding that in order to be healthy they must lose weight.

Unfortunately, however, this has major implications for our society, as regardless of the fact that we all receive similar healthist messaging steeped in diet culture, only those in the middle and upper classes can afford to pursue individual health. The value of individual health, for members of the middle class, has since become more important than other arguably more important values like equality and fairness (Greenhalgh & Wessely, 2004). As Lee and MacDonald (2010) pointed out, the pursuit of individual health is not equally available to all, which makes morality and individual responsibility essential to healthism highly problematic. This means that lower socioeconomic classes that do not have the financial means or time to pursue health, purchase and prepare fresh food, or exercise, may be viewed as immoral—a view that is often internalized and perpetuated by those struggling with ON (Bratman & Knight, 2000).

Conclusion

In closing, ON is at least partially a consequence of the cultural messaging around health, morality, food, and weight that we are constantly being inundated with. The medicalization of society and the growth of the self-care and holistic health field gave rise to healthism, an ideology implicated in ON, that perpetuates the idea that health is a personal responsibility and a moral obligation. This, in combination with the loss of culinary order due to our modern food system, and the perpetuation of unverified and even harmful health and diet information through social media platforms such as Instagram, has created a cultural climate that makes it possible, and sometimes even socially acceptable, for ON to thrive.

Rather than being understood primarily as an individual eating pathology, ON needs to be contextualized in the culture we live in. When we consider the anxiety that is generated from the incessant and conflicting messaging we get in regards to our health, threats to our health, and our personal responsibility to maintain good health, then the obsessive fixation on optimizing a healthy diet does not appear so pathological. As Wolf (2002) so eloquently stated, individuals with eating disorders are "merely doing too well what [they are] expected to do very well in the best of times" (p. 181). While there are of course other deeper psychological reasons that contribute to the development of eating disorders, this point illustrates how eating disorder behaviours are often culturally sanctioned practices taken to the extreme.

Instead of taking the medicalized approach and locating ON in the individuals who suffer, it is more useful to situate ON within our culture. While it is important that individuals struggling with ON receive treatment, that does not mean that they need to be thought of as as sick or mentally ill, but rather as canaries in the coal mine of our disordered culture, drawing our attention to the harms that are polluting any chance of having a healthy relationship with food, body, and health. Furthermore, in addition to gaining understanding about their personal emotional landscape that may have contributed to the development of ON, individuals receiving treatment would likely benefit from understanding the cultural forces at work that have pushed them towards such self-destructive behaviours in the name of health so as not to view themselves as being flawed or faulted for their struggles.

While it may very well be true that there are individual factors that make some people more prone to developing ON, a topic that will be explored in depth in the following chapter, the cultural forces have not been given enough attention in the literature on ON (Håman et al., 2015). Furthermore, it is important to point out that the articles that focus solely on the individual causes of ON exist within the discourse of healthism and even enact healthism by reproducing the notion of individual responsibility when it comes to health (Håman et al., 2015). While healing from disordered eating certainly does take a degree of personal responsibility, we must also hold medicine, holistic health, diet culture, and our modern food culture responsible for creating an orthorexic culture.

Chapter Three: Orthorexia and the Individual

Even when I became aware that my scrabbling in the dirt after raw vegetables and wild plants had become an obsession, I found it terribly difficult to free myself. I had been seduced by righteous eating. The center of my life's meaning had been transferred inexorably to food, and I could not reclaim it.

-Bratman & Knight, Health Food Junkies, 2000, p. 11

In our health and food obsessed culture, it is no wonder that orthorexia nervosa (ON) is becoming a problem that is generating increasing interest. We are, after all, social beings who are heavily influenced and shaped by the context in which we live. While the cultural factors contributing to ON have been the subject of the previous chapter in this thesis, it is also important to examine the individual factors contributing to the development of ON. The purpose of exploring individual factors related to ON is not to pathologize or blame individuals for their struggles, or even to absolve our culture from its detrimental role, but rather to better understand why some individuals may be more susceptible to struggling with ON than others. As Mac Evilly (2001) asked, "what makes some people so terrified of food?".

Over the past several decades there has been an abundance of research examining the etiology of eating disorders like AN and bulimia nervosa (BN), especially from an individual perspective (Barbarich, 2002; Berrettini, 2004; Strober, Freeman, Lampert, Diamond, & Kaye, 2000). Despite the fact that specific genetic mechanisms believed to predispose certain people to eating disorders have not been specifically identified or understood, though they have been

rigorously hypothesized (Rosen et al, 2010), eating disorders are generally understood as being at least partially caused by genetic factors (American Psychiatric Association, 2013). While some research certainly supports gene-based hypotheses (Bulik, 2005; Strober et al., 2000), stronger evidence supports epigenetic hypotheses that examine the interaction between genes and environment in the etiology of eating disorders (Hudson et al., 2003; Mazzeo & Bulik, 2009).

Much like the majority of the literature on eating disorders, most of the literature about ON focuses on the individual features and factors that may contribute to its development (Håman et al., 2015). While this research can certainly be informative and useful, it is important to remember that it is indeed a product of a medicalized view of mental illness which views mental illness as an individual problem or pathology rather than a social or cultural phenomenon (Håman et al., 2015).

With the awareness of this medicalized lens in mind, and the acceptance of the fact that who we are as humans is inextricably linked to our society and culture, this chapter will examine the individual factors that may play a role in the development of ON. More specifically, the connection between personal experiences of health anxiety, obsessive-compulsive disorder (OCD) and other eating disorders will be examined. In addition to this, the relationship between ON and restrictive diets, such as veganism and vegetarianism, will be explored, followed by a discussion on body image and ON. Next, the role of gender in ON will be briefly explored, followed by a look at how aspects of personality, including perfectionism, self-esteem, and attachment style, are implicated in ON. Finally, the psychometric tools used to measure ON in individuals will be critiqued, and the proposed diagnostic criteria for ON will be summarized before a brief conclusion.

The Role of Health Anxiety in ON

It makes intuitive sense that those struggling to rigidly control their diet in order to optimize their health experience anxiety about their health. Indeed, research shows that health anxiety, an excessive preoccupation with one's health and the misinterpretation of normal bodily sensations as disease symptoms (Tyrer & Tyrer, 2018), is positively correlated with increased fixation on food and nutrition (Hadjistavropoulos & Lawrence, 2007). Furthermore, those struggling with health anxiety are much more likely to engage in drastic and oftentimes detrimental dietary changes than those who do not struggle with it (Quick, McWilliams, & Byrd-Bredbenner, 2012).

More specific to ON, in a study evaluating the orthorexic eating tendencies in women, Segura-García et al. (2015) also found that women who exhibited stronger ON characteristics also scored high for hypochondriasis, an extreme form of health anxiety accompanied by intrusive thoughts of disease (Scarella, Laferton, Ahern, Fallon, & Barsky, 2016). Interestingly, however, Barthels et al. (2017) found that among a group of individuals with AN, those who exhibited strong orthorexic eating tendencies did not have greater hypochondriacal fears than those who did not. This suggests that while hypochondriasis may not play a significant role in informing the dietary choices of those with AN exhibiting a preoccupation with healthy eating, it appears to be a driving force behind the eating behaviour of those with ON without a comorbid eating disorder.

In addition to the connections between health anxiety, hypochondriasis, and ON, somatic symptom disorder (previously called somatoform disorder), a DSM-diagnosable mental illness characterized by persistent bodily symptoms that cause severe distress and anxiety about one's health (American Psychiatric Association, 2013), also seems to be implicated in ON (Barthels et al., 2015). Individuals struggling with somatic symptom disorder report bodily symptoms and sensations, commonly including gastrointestinal problems, to which there is no identifiable medical cause (Barthels et al., 2015). Interestingly, and perhaps not surprisingly, a German study (Barthels, 2014) found individuals who experienced greater levels of anxiety and distress while experiencing somatic symptoms exhibited more ON eating behaviours.

A common theme among health anxiety, hypochondriasis, and somatic symptom disorder is a great insecurity with regards to personal health status (American Psychiatric Association, 2013). Thus, ON behaviours may in some cases be viewed as adaptive in the sense that they are used to try to offset somatic symptoms or perceived health insecurity. Furthermore, they may be an attempt to control intrusive thoughts and worries about one's health while creating a semblance of total safety through diet (Barthels et al., 2015; Bratman & Knight, 2000; Koven & Abry, 2015).

This certainly seemed to be the case with Mr. A, a case-study subject exhibiting a severe case of ON observed by Moroze et al. (2015). Mr. A, who when admitted to hospital was severely underweight from only consuming a beverage containing only pure amino acids for an extended period of time, reported implementing dietary changes after suffering from a brief bout of constipation. His dietary changes, which became increasingly extreme over time, had been made in hopes of preventing future episodes of constipation.

Jordan Younger, a young woman whose book "Breaking Vegan" (2016) chronicled her struggles with ON, explained that her lifelong chronic and debilitating stomach pains led her to exert control over her diet from a very young age—a decision that was later encouraged by alternative health care providers. For Younger (2016), however, exerting rigid control over her diet had the opposite effect to what she had intended: "I know now that the extreme focus I was putting on my diet was making my stomach pain and anxiety ten times worse than it should have been" (p. 66).

As demonstrated by Mr. A and Younger, these ON behaviours do not seem to be an effective way to diffuse fears and anxieties around health. As Bratman and Knight (2000) so eloquently stated,

whenever we try to make ourselves completely safe, we are engaged in a fantasy, and the mental force required to carry out this feat of make-believe drives us a little crazy...by pretending that a diet will make you completely safe, you start on a path of illusion that builds over time. (p. 58)

Unfortunately, rather than reducing one's health anxiety, obsessing over healthy food actually seems to perpetuate anxiety (Bratman & Knight, 2000). As Crawford (1980) explained, engaging in rituals aimed at avoiding illness often only increases fear of illness. In the case of ON, this increase of fear around illness may then serve as a motivating factor to become even more strict about one's diet (Bratman & Knight, 2000).

Obsessive-Compulsive Disorder and Orthorexia

While health anxiety, hypochondriasis, and somatoform disorder may in some cases be comorbid with ON, obsessive-compulsive disorder, a DSM-diagnosable mental illness characterized by the presence of either intrusive obsessive thoughts or repetitive compulsive behaviours (American Psychiatric Association, 2013), might be as well. Bratman and Knight (2000) were the first to recognize the obsessive, "overdetermined nature" (p. 31) of ON, stating that those with ON devote all of their mental energy and attention to food. Younger (2016) confirmed that this was indeed her experience: "I couldn't go anywhere without planning what I was going to eat and when I was going to eat it" (p. 41). This compulsive need an individual with ON has to bring one's own special food with them wherever they go, Bratman and Knight (2000) explained, can be likened to the compulsive need an individual struggling with OCD may have, for instance, to bring their own silverware to restaurants.

The initial observations that Bratman & Knight (2000) made have since been explored in the literature examining the connections between OCD and ON (Arusoğlu et al., 2008; Donini et al., 2004). Indeed, there seems to be some overlap in ON and OCD symptoms, including the presence of intrusive thoughts, preoccupation with bodily contamination, and highly ritualized food preparation (Vandereycken, 2011). Arusoğlu et al. (2008), for instance, found that high obsessive-compulsive symptoms were positively correlated with orthorexic behaviour. In a study of 404 Italian subjects Donini et al., (2004) found that when individuals with ON and healthy individuals received the same nutrition information, those with ON interpreted it very differently and allowed it to dramatically inform their eating behaviour. Based on these results, Donini et al. (2004) hypothesized that individuals with ON may have an obsessive-compulsive behavioural pathology that causes them to privilege emotion and obsession over reason, thereby reducing their ability to think critically about the information they consume. Due to these preliminary connections between OCD and ON, authors such as Mathieu (2005) argue that ON, which is defined by an obsession to eat the perfect diet, should be conceptualized as a type of OCD rather than an eating disorder.

While the connections between ON and OCD may seem to be somewhat intuitive, Barthels et al., (2015) point out that there is very little empirical evidence to prove this connection. The correlations observed between the ON and OCD, they argue, have been very superficial (Barthels, 2014). Furthermore, while OCD obsessions are experienced as being ego-dystonic, meaning that they are not perceived by the individual as being part of one's personality or self-image, ON obsessions appear to be largely ego-systonic (Barthels et al., 2015).

Ego-systonic obsessions in ON, such as eating only eating natural and organic foods, align with one's personality and self-concept of themselves as, for instance, a healthy person or a careful eater. This ego-systonic behaviour, Barthels et al. (2015) pointed out, is much like that seen in AN, making it very difficult for individuals suffering to have insight into the harmful nature of their disorders (Dunn & Bratman, 2015). It is worth noting, however, that there appears to be strong links between OCD and AN (Davis, Kaptein, Kaplan, Olmsted, & Woodside, 1998; Thornton & Russell, 1997), making the link between ON and OCD quite plausible.

Personal Eating Disorder History and Orthorexia

Much like the link between OCD and ON, the link between ON and other eating disorders, namely AN and BN, has been of particular interest to researchers (Bratman & Knight, 2000; Barthels et al., 2017; Segura-Garcia et al., 2015). Of course, Bratman (1997) originally chose the term orthorexia because of the similarities between ON and AN: "anyone who has ever suffered from anorexia or bulimia will recognize classic patterns in this story: the cyclic extremes, the obsession, the separation from others" (Bratman & Knight, 2000, p. 14). Given that the strongest predictor of ON is a history of an eating disorder (Barnes & Caltabiano, 2017), the term seems very appropriate.

Barthels et al., (2017) posited that the connection between ON and AN could be closer than Bratman & Knight (2000) originally estimated. Due to the overwhelming similarities between ON and AN, it is possible that ON is in fact a particular manifestation or subtype of AN that often presents as being less severe (Barthels et al., 2017). In both ON and AN, for instance, individuals spend an inordinate amount of time thinking about food, strictly control food intake, and generally reduce their intake of certain foods and food groups over time due to distorted beliefs about food. Furthermore, both individuals with AN and those with ON suffer from body image distortions, though they manifest differently. Typically those with AN perceive themselves as being larger than they really are, and those with ON generally perceive their bodies as being flawed in that they are not as healthy as they feel they should be (Barthels et al., 2017).

Recent research by Segura et al., (2015) examined the relationship between ON, AN, and BN, and found that ON behaviours may play an important role in the progression of AN and BN. In their study, Segura-García et al., (2015) examined 32 individuals with AN or BN and thoroughly evaluated the presence of ON behaviours before receiving treatment for their eating disorder, and again three years after completing treatment. Interestingly, the authors discovered that 28% of patients exhibited significant ON behaviours prior to receiving treatment.

Surprisingly, however, rather than seeing a decrease of ON behaviours among participants after receiving treatment for their eating disorder, the authors saw a dramatic increase. When evaluated three years after treatment, the incidence of ON in the study group had

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increased to 53% (Segura-García et al., 2015). These findings could suggest that "ON may precede or follow an ED and, at least theoretically, they could also coexist and be confused" (Segura-García et al., 2015, p. 162).

Of course, these findings could be interpreted in other ways as well. ON could conceivably, in some cases, be understood as a part of the evolution of AN or BN (Segura-García et al., 2015). As the symptoms of AN and BN, such as extreme caloric restriction and purging, respectively, become less severe, individuals may tend to focus more on the quality or type of food they eat than the quality. In this sense, ON could be understood as an important, and perhaps in some cases necessary, crutch adopted by patients to help them move from more serious conditions to a generally less serious one (Segura-García et al., 2015).

It is also possible, however, that some individuals develop ON during or after recovery from AN or BN as a result of orthorexic messaging they are exposed to during treatment. As Segura-García et al. (2015) explained, ON could be interpreted, in some cases, as an "iatrogenic-like side-effect" (p. 165) of ED treatment. To support this idea, studies show, for instance, that dieticians, who play a key role in helping patients with food choices and portion sizing as part of ED treatment, exhibit exceptionally high rates of ON (Alvarenga et al., 2012; Kinzl et al., 2006; Tremelling, Sandon, Vega, & McAdams, 2017). Furthermore, one study found that 45.5% of medical professionals report significant ON thoughts and behaviours (BağciBosi, Camur, & Güler, 2007). This, in combination with the strong anti-fat bias held by many in the medical and dietetics fields (Diversi, Hughes, & Burke, 2016; Puhl, Wharton, & Heuer, 2009; Sabin, Marini, & Nosek, 2012) has the potential to negatively impact treatment outcomes for EDs. While there are no studies confirming that dieticians or medical professionals struggling

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with ON specifically impart their disordered beliefs about food and weight onto patients, it seems it could be a plausible occurrence since evidence shows weight bias strongly impacts how dieticians treat patients (Diversi et al., 2016). This possibility, therefore, should be further examined in research.

Yet another interpretation of Segura-García et al.'s (2015) results is that ON is a way for ED patients to change the way they are perceived by others while still maintaining control over what they eat and how their body appears. Those who eat healthily are generally seen as virtuous in our culture, while those with EDs such as AN or BN are often viewed as pathological and sick. Thus ON could be viewed as a more socially acceptable way of controlling one's food and body. As Segura-García et al. (2015) hypothesized, "if we accept that the core psychopathological issue among EDs patients is the need to control something that they think is possible rather than to carry out their unresolved needs, ON could be then considered a different way of maintaining the ED" (p. 165).

To support the findings of Segura-García et al. (2015), Barthels et al. (2017) found that individuals with AN who demonstrated strong orthorexic eating tendencies reported feeling more autonomous in their recovery. Therefore, the authors posited that for individuals with AN, orthorexic behaviour may indeed be a coping strategy used in their recovery as a way to consume more food while retaining a semblance of control over their food choices (Barthels et al., 2017). While maintaining such strict control over one's food may seem counterproductive to recovery, Barthels et al. (2017) argued that using ON behaviours as a coping strategy could in fact help recovering individuals meet their psychological needs and give them a greater sense of well-being over time. Contrary to the findings of Segura et al., (2015) and Barthels et al., (2017) a small study examining ON behaviours in Italian and Polish individuals with ON (Gramaglia, Brytek-Matera, Rogoza, & Zeppegno, 2017) found no significant overlap between ON and AN in Italian patients. This could highlight the importance of cultural factors when it comes to understanding ON and its connection to AN. Ultimately, though, more research examining the relationship between ON, AN, and BN is needed in order to better understand how to understand ON and the individuals who struggle with it.

Restrictive Diets and Orthorexia

Since food choices are rigidly controlled in ON, much like they are in AN, the topic of restrictive diets such as veganism and vegetarianism has been an area of particular interest among ON researchers. More specifically, some have hypothesized and concluded that for some people, adopting vegan or vegetarian diets may be a way to disguise their eating pathology, justify their restrictive food choices, or control their body weight (Gilbody, Kirk, & Hill, 1999; Missbach et al., 2015; Musolino, Warin, Wade, & Gilchrist, 2015).

A study comparing ON tendencies between vegans, vegetarians, and meat eaters (Barthels, Meyer, & Pietrowsky, 2018) found that vegans and vegetarians report more eating behaviours and beliefs associated with ON than omnivores. Pietrowsky (2018), for instance, found the prevalence of ON among vegans to be 7.9% and vegetarians 3.8%, compared to 3.6% for those who rarely consume meat and 0% for those who consume meat regularly. Similarly, another study of the prevalence of ON in vegans and vegetarians found that vegans and vegetarians reported more orthorexic behaviours, such as an exaggerated focus on healthy eating,

than individuals who did not follow a restrictive diet (Brytek-Matera, Czepczor-Bernat, Jurzak, Kornacka, & Kołodziejczyk, 2019).

Other studies examining the relationship between veganism/vegetarianism and ON, like the studies mentioned above, found that individuals following these diets reported more orthorexic eating behaviours and have a greater incidence of ON symptoms than those who eat an omnivorous diet (Barnett, Dripps, & Blomquist, 2016; Barthels et al., 2018; Herranz Valera et al., 2014). Both Barthels et al., (2018) and Çiçekoğlu & Tunçay (2018), however, reported no relationship between vegan and vegetarian diets and ON. Individuals who eat vegan or vegetarian diets, the authors concluded, followed their restrictive diets for ethical rather than personal health reasons (Barthels et al., 2018).

While most of the research in this area shows that those on vegan or vegetarian diets show higher ON symptoms than those who are not, it is important to note that by nature, following a restrictive diet requires more effort than an omnivorous diet does. For example, Missbach et al. (2015) pointed out that sticking to a vegan or vegetarian diet often means planning meals and snacks in advance, spending more time thinking about food, and being less flexible with their food choices.

Considering this, there could be at least two obvious possible explanations for why vegans and vegetarians appear to have a greater incidence of ON symptoms: the first is that following vegan and vegetarian diets, and the hypervigilance around food and knowledge they require, could lead to increasingly obsessive thoughts and behaviours around food among some people (Barthels et al., 2018); the second is that, as mentioned above, people with ON are more likely to use vegan and vegetarian diets as a way to mask their symptoms and justify their food

restriction (Gilbody et al., 1999; Missbach et al., 2015; Musolino et al., 2015). Finally, it is important to note than any dieting behaviour that requires a radical change in daily eating habits has been associated with ON (Barthels et al., 2018).

Orthorexia and Body Image: Is Weight Loss a Goal?

Related to restrictive diets and hypervigilance around food is the subject of body image, that is the "internal representation of one's physical appearance" (Zeppegno, 2018), and the role it plays in ON. Bratman and Knight (2000) wrote that a key distinguishing characteristic of ON is that individuals with ON do not experience negative body image or have a preoccupation with weight loss and thinness. Furthermore, body image concerns are not included in Dunn and Bratman's (2016) proposed diagnostic criteria for ON.

Indeed, there is some evidence that may support the idea that weight loss and thinness are not part of the ON picture. Three studies have shown a positive correlation between body-mass-index and ON symptoms, meaning that people who exhibited more orthorexic symptoms had a higher body-mass-index (Asil & Sürücüoğlu, 2015; Fidan et al., 2010; Oberle, Samaghabadi, & Hughes, 2017). Furthermore, individuals with ON are less likely to experience extreme weight loss as a result of their eating habits than those struggling with AN, for example (Gleaves et al., 2013); if they did suffer from weight loss, however, they would likely receive an AN diagnosis.

One study found that female university students with greater orthorexic tendencies were in fact more satisfied with their appearance and body image than those without (Brytek-Matera et al., 2015). Those with ON tendencies were less likely to engage in regular physical exercise and become preoccupied with their outer appearance. As Brytek-Matera et al. (2015) explained, this

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negative correlation between body image and appearance dissatisfaction and ON could mean that the more satisfied female students are with the appearance of their bodies, the more obsessed with healthy eating they become.

In another study looking at the eating habits of individuals struggling with AN, Barthels et al. (2017) found that those who displayed strong orthorexic eating behaviours had a stronger tendency towards self-aggrandisement. These results, the authors posited, could indicate that AN patients with strong ON tendencies may feel more confident and comfortable in their bodies, which could mean that they have fewer body image concerns. Alternatively, however, it is possible that AN patients with ON tendencies feel more comfortable with their bodies because they perceive their AN behaviours to be effective in helping them maintain the body weight and shape they desire.

Interestingly, however, there is more evidence showing the opposite of what Bratman and his colleagues observed, causing some to question the validity of creating a set of criteria for ON based on anecdotal evidence (Zeppegno, 2018). Varga and Mate (2009) found that the more ON behaviours individuals use, the more they struggle with body image disturbances (as cited in Zeppegno, 2018). Barnes and Caltabiano (2017) found that ON tendencies are correlated with appearance and weight preoccupation. A German study found that individuals who reported high levels of ON eating tendencies had lower body-mass-index scores than those with few or no ON eating tendencies (Barthels, 2014). Yet another study discovered that university students with ON reported being more physically active and more afraid of gaining weight than healthy controls (Al Kattan, 2016). Furthermore, those with ON were more prone to perceiving their body size as larger than it actually was and they engaged in more frequent body monitoring

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activities. Interestingly, and perhaps not surprisingly, females presenting with ON were more concerned with their body image and weight than men.

While it is possible that in some cases the desire for weight loss and body image dissatisfaction do not initially drive ON behaviours, weight loss is often the result of removing foods from one's diet (Zeppegno, 2018). Younger (2016) explained, for instance, that when she cut gluten, animal products, and processed foods from her diet, she experienced significant weight loss (and subsequent praise for her weight loss from family and friends), which further fuelled her orthorexic behaviour. Perhaps for some, unintended weight loss due to dietary changes made in the name of health could actually be a motivating factor for adhering to a new diet or even for making even more dietary changes. As Donini et al. (2004) posited, eating healthily "may be an alibi in order to follow the socially and culturally accepted terms of beauty, without having to confess a belief in them" (p. 154).

Indeed, weight and health are often conflated in our culture, to the point where for many women and perhaps many men, "weight loss has become the paradigmatic (mental) shortcut that represents their possibility to achieve (or fail to achieve) health and self-realization" (Rangel et al., 2012, p. 129). Since health and weight are inextricably linked in our minds, it stands to reason that becoming healthy results in weight loss; weight loss is therefore perceived as a marker on the path towards better health.

Given this, it seems trivial to assume that body image issues, such as body image distortion and body image dissatisfaction, are not present in ON. This does not mean, however, that body image disturbances and a desire for thinness, or lack thereof, should become essential in the way we conceptualize ON. Since "weight phobia is a highly culture-bound phenomenon"

Ramacciotti et al. (2002) argued, it should not be a determining factor in the diagnosis of eating disorders. By keeping the criteria around body image and thinness open, greater variances in ON behaviour can be accounted for.

Orthorexia and Gender

Just as we see variances in ON with respect to gender and body image, there appears to be some differences in the prevalence of ON between males and females. Unlike AN, which is more prevalent among females (Hoek & van Hoeken, 2003; Sweeting et al., 2015) the studies examining gender and ON have yielded varying results. In a review of the literature on gender and ON, Oberle et al. (2017) discussed twelve studies assessing ON and gender, seven of which found no gender differences (Aksoydan & Camci, 2009; BağciBosi et al., 2007; Brytek-Matera et al., 2015; Lewis, 2012; McInerney-Ernst, 2011; Ramacciotti et al., 2011; Herranz Valera et al., 2014). In their study, Oberle et al. (2017) also found no significant gender differences in relation to ON.

The remaining studies on gender and ON did find differences in gender and symptomatology of ON. Both Donini et al., (2004) and Fidan et al. (2010) found that males, Italian men and Turkish male medical students, respectively, showed a higher incidence of ON. Three studies found the opposite, however, with females displaying more ON symptoms (Arusoğlu et al., 2008; Keller & Konradsen, 2013; Koven & Senbonmatsu, 2013). The results from these studies, Oberle et al. (2017) pointed out, may seem inconclusive but when considered together they suggest that ON seems to affect both males and females equally.

Orthorexia and Personality: Perfectionism, Self-Esteem, and Attachment Style

In addition to the interesting findings on gender, there have been some illuminating findings on ON and personality. More specifically, areas of research on ON in relation to personality have included perfectionism, self-esteem, and attachment style. These three aspects of personality have been studied in relation to eating disorders like AN and BN and have been found to be implicated in their etiology and maintenance (Brown, Parman, Rudat, & Craighead, 2012; Zachrisson & Skårderud, 2010; Bardone-Cone et al., 2007).

While there have been relatively few studies done on perfectionism and ON, there indeed seems to be a link between the two—one that was initially discussed by Bratman & Knight (2000). Orthorexic eating behaviours, the authors described, is driven by the desire to eat a flawless diet and feel perfectly pure, and perfectionism plays a key role in the rigid adherence to restrictive diets (Bratman & Knight, 2000; Brown et al., 2012). This description can be anecdotally attested to by Younger's (2016) explanation of what drove her rigid eating behaviours during her struggle with ON: "to achieve that level of perfection and control, I cut a whole lot of foods out of my diet. I stopped eating red meat, went gluten-free, and scaled way back on my portion sizes" (p. 23).

Indeed, it appears that a perfectionistic personality is a risk factor for ON (Barnes & Caltabiano, 2017; Koven & Abry, 2015; Mathieu, 2005), much like it is in AN and BN (Brown et al., 2012; Bardone-Cone et al., 2007). Barnes & Caltabiano (2017) found, for instance, that high levels of self-oriented perfectionism, though not others-oriented or socially prescribed perfectionism, was significantly correlated with ON. Interestingly, one study (Gleaves et al., 2013) did not find a link between perfectionism and ON. This could, however, be due to the fact

that they employed the Eating Habits Questionnaire in their study, a 160-question survey with questions based on Bratman and Knight's (2000) book, while the majority of other studies employed the ORTHO-15 scale. More research is certainly needed on the subject of ON and perfectionism, however.

Much like perfectionism, self-esteem is often implicated in eating disorders as well (Segura-García et al., 2015), with low self-esteem being reported among individuals with AN and BN (Gual et al., 2002). According to Segura-García et al. (2015),

EDs and ON share a lack of pleasure linked to food consumption and exhibit the need to control food intake as a tool to reach control over one's own life, or the search for self-esteem and self-realization through the control of food intake. (p. 162)

Younger (2016) attested to this point and explained that when she was in the depths of her struggles with ON, what and how she ate was directly correlated with her happiness and feelings of self-worth. As Bratman & Knight (2000) explained, for a person struggling with ON, diet becomes a way of boosting one's self esteem, since healthy eating is seen as virtuous in our culture. Interestingly, the maintaining of extreme healthy eating behaviour often creates an attitude of superiority over others (Bratman & Knight, 2000).

In contrast with individuals struggling with AN and BN, individuals with ON appear to have high self-esteem (Bratman & Knight, 2000; Kinzl et al., 2006; Mac Evilly, 2001). One study examining the link between self-esteem and ON found there to be no correlation between the two, however (Barnes & Caltabiano, 2017). Whether high self-esteem is contingent upon maintaining one's restricted diet however, remains unclear, and more research is needed on this subject. Along with perfectionism and self-esteem, attachment style, which can be understood as how one relates interpersonally, has shown to be implicated in eating disorders. Insecure attachment styles in particular have been associated with AN and BN (Ringer & Crittenden, 2007; Zachrisson & Skårderud, 2010). Only one study to date has investigated the relationship between attachment style and ON, with findings showing a negative correlation between ON fearful and dismissive attachment style and a positive correlation between ON and secure attachment (Barnes & Caltabiano, 2017). Yet again, as with perfectionism and self-esteem, more research is needed to determine the relationship between attachment and ON. At first glance, however, it appears that ON is similar to AN and BN when it comes to perfectionism, but differs when it comes to self-esteem and attachment styles.

Measuring Orthorexia: The Need For Standardized Diagnostic Criteria

While all of the research discussed above certainly sheds light on ON, its relation to other mental disorders, its possible causes, and its characteristics, a disclaimer of sorts is needed when considering this information. Since ON is still a relatively recently discovered phenomenon and is not a DSM diagnosable mental illness, there is no official measurement scale for ON and no agreed upon diagnostic criteria, though three have been used in academic studies.

To date 32 studies on ON employed the ORTHO-15 scale to test for ON (Valente, Syurina, & Donini, 2019). As mentioned in Chapter 1, the ORTHO-15 is a diagnostic tool consisting of 15 multiple choice questions developed by Italian researchers (Donini, Marsili, Graziani, Imbriale, & Canella, 2005) using Bratman & Knight's (2000) description of ON. Other employed diagnostic tools include the Dusseldorf Orthorexia Scale (DOS) (Barthels et al., 2015), which is a questionnaire consisting of 10 questions targeting the behavioural aspects of ON used to identify ON in German speaking nations. The DOS has been used in five German studies (Valente et al., 2019). Gleaves et al. (2013) also created the Eating Habits Questionnaire (EHQ) which consists of 21 items intended to measure orthorexic symptoms, which have been used in five studies (Valente et al., 2019). Five studies to date have employed the EHQ to measure ON, and it has been found to be the most reliable and valid diagnostic tool for ON (Oberle et al., 2017; Valente et al., 2019).

While the ORTHO-15 certainly provides some standardization among studies on ON, its psychometric validity has been questioned. Dunn and Bratman (2016), for instance, pointed out that the authors of the ORTHO-15 failed to adhere to the tenets of sound test construction. There appears to be no standardization methods, no sufficient explanation of how the authors chose their questions for their questionnaire, and a lack of psychometric properties (Dunn & Bratman, 2016; Oberle et al., 2017). Furthermore, the ORTHO-15 was conceptualized and written in Italy and translated into Enlish, which some believe may not make it applicable for English-speaking nations (Gleaves et al., 2013). Thus, a new method for measuring ON is certainly needed (Dunn & Bratman, 2016; Gleaves et al., 2013; Oberle et al., 2017).

Of course, a standardized scale to measure ON cannot be created without a standardized set of diagnostic criteria. Currently, two sets of diagnostic criteria for ON have been proposed in the literature. Moroze et al. (2015) proposed a set of diagnostic criteria consisting of four conditions: the obsession with consuming healthy, pure, food; the deterioration of physical health or impairment in social, educational, and/or vocational functioning; the behaviour cannot be attributed to symptoms of another mental illness (ie. OCD); the behaviour cannot be attributed to specific diets associated with religion, diagnosed physical illness, or food allergies. For the full,

detailed version of these diagnostic criteria, including sub-criteria, please see Moroze et al. (2015).

Dunn and Bratman (2016) also proposed a set of diagnostic criteria, similar to Moroze et al., (2015) but slightly different in a few significant ways, namely with respect to their acknowledgement of weight loss, and the inclusion of the importance of dietary beliefs. Their diagnostic criteria consist of 2 lengthy conditions: obsession with consuming healthy food based on a set of dietary beliefs, distress when confronted with unhealthy food choices, and potential unintended weight-loss; the obsession with healthy eating causes physical impairment, educational, and/or vocational impairment, or causes self-worth and body image to become dependent on health eating behaviour. Again, for the original version of these (2016) proposed diagnostic criteria for ON, see Dunn and Bratman (2016).

Conclusion

In closing, as shown in the research outlined in this chapter, the individual factors implicated in ON are vast, complex, and contradictory. Understanding these factors, however, is crucial to understanding ON and all of its facets. It is important to note that the individual factors related to ON explored in this chapter are not exhaustive, but are those most commonly discussed in the existing literature on ON. As ON gains more recognition and interest in the field of academia, more conclusive evidence in the areas discussed above will emerge, and more factors relating to ON will undoubtedly arise, creating a clearer picture of this debilitating phenomenon.

In the meantime, however, it is important for therapists and counsellors to understand why and how ON manifests on an individual level, and how to recognize it in clients. While it is not yet a DSM-diagnosable mental illness, ON still requires therapeutic attention, a topic that will be explored in the next chapter. Gaining sufficient understanding is an important step in being able to effectively work with clients struggling with ON, and to help them heal their relationship with food, their bodies, and their mind.

Chapter Four: Therapeutic Considerations for Orthorexia

While obsessed with food, we miss numerous chances for a greater life.

-Bratman & Knight, Health Food Junkies, 2000, p. 30

Any kind of human suffering deserves acknowledgement and empathy, regardless of whether or not it is understood as a diagnosable mental illness. While ON is not yet considered a DSM-diagnosable mental illness, the reality is that many people are suffering from this particular kind of disordered eating. It is therefore incredibly important that counsellors and therapists become knowledgeable about both the sociocultural forces that drive ON, and the individual factors that may make people more susceptible to developing this all-consuming obsession with healthy eating.

As discussed in the previous chapter, however, much of the research on ON is in its early stages and is therefore inconclusive and contradictory. This undoubtedly presents challenges for clinicians. While two-thirds of mental health workers, including nurses, social workers, psychologists, and psychiatrists, have reported observing clients struggling with ON (Vandereycken, 2011), it cannot be denied that more information is needed in order for clinicians to properly understand ON and to effectively help those struggling (Barthels, 2014). Indeed, the majority of clinicians agree that ON deserves more attention from the scientific community (Vandereycken, 2011).

While almost all of the research on ON has taken a very medicalized view, focusing on examining the individual factors that are implicated in this phenomenon (Håman et al., 2015),

virtually no empirical research has been done on therapeutic interventions for ON (Barthels et al., 2015). Given that the focus of this chapter is therapeutic interventions for ON, it would seem that there is no real literature to draw upon. Bratman and Knight (2000), however, provided an overview of the steps required to heal from ON, as well as guidelines for practitioners, which will be discussed throughout this chapter. In addition to this, given the striking similarities between AN and ON, which were discussed in the previous chapter, it also seems appropriate to draw upon research on therapeutic interventions for AN and explore how it could theoretically be useful in the treatment of ON—especially considering that ON could be a subtype of AN (Barthels et al., 2017), a precursor of AN, or a residual effect of AN (Segura-García et al., 2015).

Using literature on therapeutic interventions for AN to shed light on how counsellors and therapists can help clients with ON recover also seems particularly appropriate because research shows that individuals with subclinical eating pathology, which ON can certainly be considered, are not dramatically different from those who meet the criteria for an ED diagnosis. In fact, subclinical eating pathology is often just as debilitating and distressing for the individuals suffering (Fairburn & Bohn, 2005). Unfortunately, however, very little research has been done on therapeutic interventions for subclinical eating pathology (Juarascio, Forman, & Herbert, 2010).

With the aim of providing counsellors and therapists with knowledge about how to help individuals struggling with ON, this chapter will start by discussing ideas for effectively identifying and assessing ON in clients. It will then go on to give an overview of some key considerations for counsellors and therapists to be aware of when working with clients struggling with ON. Next, specific therapeutic interventions and tools that therapists and counsellors could use to help clients with ON will be discussed: Acceptance and Commitment Therapy (ACT) will be the main focus of this section. Finally, the chapter will end with a conclusion summarizing key points presented in this chapter.

Identifying and Assessing Orthorexia

Being able to identify and assess ON is essential for counsellors and therapists who are working with clients presenting with an unhealthy obsession with healthy eating. In the case of ON, it is important to be aware that clients may not have much awareness about their problematic relationship with food, health, and body. Due to the ego-syntonic nature of ON (Barthels et al., 2015), Bratman and Knight (2000) explained that individuals struggling with ON are very unlikely to seek out help for ON behaviours. While there is no empirical evidence confirming this, it seems plausible that in some cases individuals may not be fully conscious of how problematic their behaviours are and therefore not seek psychological help.

It is possible, however, that individuals struggling with ON come to counsellors and therapists presenting with different problems, such as those discussed in the previous chapter like health anxiety, hypochondriasis, somatic symptom disorder, obsessive-compulsive symptoms related to health and food, or another eating disorder like AN or BN. It is therefore especially important to be mindful of the correlation between ON and these other problems, and to assess for the presence of ON if clients present with any of the above problems and appears to have a preoccupation with food.

Of course, it is important that counsellors are clear on the various distinguishing characteristics of ON, which were discussed in the first and third chapters, before intervening. Being able to distinguish between normal healthy eating and ON is arguably one of the most important things for practitioners to understand in order to effectively work with clients presenting with a fixation on healthy eating. As Donini et al., (2004) explained, "the desire to eat healthy foods is not in itself a disorder, but the obsession for these foods, together with the loss of moderation and balance and the withdrawal from life caused by this food habit" (p. 154) is what defines ON. It is important that practitioners keep this in mind so as not to see eating pathology where there is none.

To help practitioners further judge whether or not to be concerned about a client's relationship with healthy eating, Bratman and Knight (2000) outlined common circumstances that should alert healthcare practitioners, including therapists and counsellors, that the client may be struggling with ON. Practitioners should be concerned if: it seems the client's diet sounds unsafe or unbalanced in that it may cause nutritional deficiencies; it appears the client's diet is negatively impacting their mood or emotional well-being; the client mentions wanting to stop eating a restrictive diet but cannot; or the client discloses that a third party, such as an Instagram influencer, for instance, is dictating their diet (Bratman & Knight, 2000).

When counsellors and therapists do feel that a client's relationship with healthy eating seems to be very out of balance, it is important to voice concern (Bratman & Knight, 2000). Confronting a client about the possible presence of ON, however, can be difficult, again due to its ego-syntonic nature. As Younger (2016) pointed out, individuals struggling with ON will often try to justify their extremely rigid way of eating: "people frequently made comments about how strict I was with myself, but my comeback to them and to myself was that they didn't have to deal with stomach problems like mine, so they couldn't possibly understand" (p. 44). As one can imagine, this makes it very difficult to have a conversation about their eating habits and, of

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course, even more challenging to help them therapeutically. It is, however, the responsibility of counsellors and therapists to help make clients aware of the ways in which their relationship with food could be harming them (Bratman & Knight, 2000).

Once a client seems willing to explore their relationship with food with their counsellor or therapist, learning the specific behaviours and beliefs of the client is an important next step. Barthels et al., (2015) suggested working with a client to create a list of foods that they deem off limits or unhealthy, and a list of foods they perceive as healthy and therefore allow in their diet. Additionally, helping a client to create a list of all of the nutrition and food rules they follow can give practitioners an idea of the severity of ON as well as the specific behaviours involved (Barthels et al., 2015). Counsellors and therapists may also choose to give clients these tasks as homework, which they are expected to bring to session to be reviewed together.

Alternatively, or additionally, counsellors and therapists may find it helpful to employ Bratman and Knight's (2000) self-test, the Bratman Orthorexia Test (BOT) (See Appendix A). This test, comprised of six questions, can be a useful tool to help counsellors and therapists understand the specifics of the client's food beliefs and behaviours, and to help clients become more aware of the severity of their behaviour. It is important, however, that these assessments are carried out with genuine curiosity and a non-judgemental tone, as passing judgement or providing an opposing opinion on a client's beliefs at this stage may alienate the client (Hunter & Crudo, 2018).

It may be beneficial for the counsellor or therapist to explicitly tell the client, for example, that their intention is not to judge the client for the way they eat, but merely to understand. In keeping with this, the counsellor or therapist may inevitably have strong emotions and opinions arise as the client talks about their dietary regime, though it is important not to externalise them in this stage. Staying as emotionally neutral and openly curious as possible is more likely to help the client feel comfortable disclosing information. If the counsellor or therapist demonstrates alarm when the client discloses extreme eating behaviours, for instance, it is likely that the client will shut down, be less likely to continue sharing, and withdraw their trust. This may mean that the client's more extreme behaviours, which could be putting the client in extreme medical danger, will be withheld from the counsellor or therapist.

Once counsellors or therapists have taken an inventory of the client's food beliefs and behaviours, they should then assess the level of risk that client is at given their current food intake. If their list of restricted foods is lengthy and they have very few allowed foods, for instance, it is possible that the client is at risk for serious nutritional deficiencies and/or dangerous weight loss. When this is the case, it is necessary to immediately refer the client to a physician who is well-versed in disordered eating and perhaps even recommend in-patient treatment if the case is severe (Barthels et al., 2015). In the clients who are under age, parents must be involved in treatment as well (Barthels et al., 2015).

Key Considerations for Clinicians Addressing ON

In addition to understanding how to effectively identify and assess for ON, there are some key considerations counsellors and therapists should keep in mind when addressing ON. The first is to be very mindful of one's own dietary preferences and beliefs and how they may shape the way you view the client's diet. Bratman and Knight (2000) warned it is important to "make sure you are not just reacting in a knee-jerk way to a dietary belief you don't share" (p.

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238). Furthermore, if clinicians are strict with their own diets, it is possible that it will be more difficult to not only identify ON, but to help clients loosen their strict dietary rules.

Another key consideration in working with individuals with ON is to take time to establish a strong sense of respect, trust, and understanding (Bratman & Knight, 2000). Counsellors and therapists should show that they understand the client's reasoning for being strict about their food intake and be sure to "validate the basic intention" (Bratman & Knight, 2000, p. 240-241) behind their extreme behaviour. Bratman & Knight (2000) suggested that agreeing that there are problems with the standard American diet, and that improving one's diet can have a positive impact on health will help establish trust with the client—an important foundational step before trying to encourage the client to become less strict with their diet and confronting their magical beliefs about food. After all, practitioners must understand that "asking severely orthorexic patients to abandon false food beliefs is really a request to discard a deeply held ideology" (Koven & Abry, 2015, p. 391). It is therefore important to work slowly and gently with individuals presenting with ON to help them let go of extreme dietary beliefs and behaviours (Bratman & Knight, 2000).

Yet another key consideration for counsellors and therapists is to be aware of who the client's healthcare team is and what kind of health and diet information they are getting from their practitioners. Sadly, due to the prevalence of healthism in our healthcare system and culture, practitioners may unknowingly encourage diet behaviours that for some people can lead to ON. As Bratman and Knight (2000) warned that "sometimes a person is under the spell of a healthcare professional who seems to be egging her on to further feats of dietary rigor" and that

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"many alternative practitioners possess an excessively enthusiastic view of orthorexia" (Bratman & Knight, 241).

Younger (2016), who herself suffered from ON, illustrated this point when she described taking a trip to a nutritionist in hopes that they would advise her to reintroduce foods she prohibited herself from eating, only to have them recommend an even more restrictive diet. Furthermore, the nutritionist encouraged her to refrain from eating if she felt anxiety, because it was bad for her digestion. Younger (2016) explained that as someone with a nervous stomach, that left her very few occasions for eating, which further exacerbated her ON symptoms and led to significant weight loss.

If it seems to be the case that a client's ON behaviours stem from, or are being actively encouraged by, a member of their healthcare team, it may be necessary to arrange to talk with the practitioner, with written consent from the client, of course. This is a great opportunity for counsellors and therapists to not only advocate for their client, but to educate other healthcare practitioners about ON and its dangers. Of course, one must be mindful about how to have this conversation in a tactful way that does not alienate the practitioner.

Bratman & Knight (2000) recommended communicating that although the client feels that the practitioner and the recommended dietary protocol has helped, it appears that the client has become obsessive-compulsive about food in the process. Having a conversation about ON and its dangers may then be appropriate. Finally, asking the practitioner if they would aid in your efforts to help the client become more relaxed about their diet so that messaging is consistent among the client's whole health care team is essential (Bratman & Knight, 2000). Additionally, therapists and counsellors should be familiar with healthcare practitioners who are well-versed in ON and eating disorders, as it is important that a multidisciplinary approach be taken in treating ON (Koven & Abry, 2015). Doctors and dieticians should indeed be part of a client's treatment team, with nutrition counselling being a particularly important aspect of treatment that can help clients "develop a more realistic view on the significance and mutual relation of nutrition and health" (Barthels et al., 2015). According to Aarnio and Lindeman (as cited in Koven & Abry, 2015) nutrition counselling, should not, however, focus solely on scientific facts about food, such as nutrients, but should also address "emotional aspects of food beliefs and food choices" (p. 391).

Another key factor in helping clients with ON is for counsellors and therapists to be well-versed in the many ways in which ON behaviours are actively promoted and celebrated in our culture, and be willing to address them with the client. As Harvey (2017) emphasized, "it would be helpful for therapeutic interventions that aim to alleviate obsessional attitudes towards 'healthy' eating to account for the revered nature of health-promoting and self-improvement practices in the current climate" (Harvey, 2017, p. 154). Harvey (2017) suggested that counsellors and therapists should look to incorporate feminist principles into therapy to provide a framework for how to address the cultural aspects of ON, such as healthism and diet culture, in a way that subverts dominant discourses of EDs as being purely medical phenomena. Addressing the internal individual factors contributing to a client's struggles with ON in therapy should always be done in tandem with discussion and education about the external cultural factors discussed in chapter two.

An important consideration counsellors and therapists should consider when addressing the individual factors behind a client's ON behaviours and beliefs is that treatment should go beyond symptom management (Harvey, 2017). ON symptoms, much like AN symptoms, should be understood by counsellors and therapists as behaviours that help distract the client from emotional needs they are unable to or do not know how to meet (Orbach, 1993). While helping a client manage and decrease ON symptoms should indeed be a goal of therapeutic treatment, helping a client identify and meet their emotional needs and create a strong sense of self outside of food and health is critical for long-term recovery (Harvey, 2017).

Finally, therapists should work to expose any gender-based beliefs they may have about eating disorders and disordered eating. ON appears to occur fairly equally in men and women (Aksoydan & Camci, 2009; BağciBosi et al., 2007; Brytek-Matera et al., 2015; Lewis, 2012; McInerney-Ernst, 2011; Oberle et al., 2017; Ramacciotti et al., 2011; Herranz Valera et al., 2014), unlike AN which is more prevalent among women (Hoek & van Hoeken, 2003; Sweeting et al., 2015). Being aware of this may help counsellors and therapists more effectively screen for and identify ON in clients, especially male clients whose disordered behaviour may otherwise be overlooked due to gender-based assumptions (Harvey, 2017).

Using Therapeutic Interventions for AN to Inform ON Treatment

Once therapists and counsellors have assessed and identified ON and have considered various aspects of treatment like those discussed above, they must devise a therapeutic plan. Typically, therapists and counsellors turn to existing literature on therapeutic interventions for the issues they are treating. Unfortunately, however, as Barthels et al. (2015) pointed out, there are no studies that specifically assess the efficacy of therapeutic interventions for ON that

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counsellors and therapists can reference. There has, however, been an abundance of research on therapeutic interventions for EDs that could prove useful for counsellors and therapists who are faced with a client struggling with ON.

Since ON and AN have so many similarities it seems likely that therapeutic interventions found to be effective for AN could show potential in the treatment of ON. After all, both AN and ON can be identified by a strong preoccupation with food, restrictive eating, food anxiety, magical beliefs about certain foods, and ritualized eating behaviours (Brytek-Matera et al., 2015; Dennet, 2018; Michalska, Szejko, Jakubczyk, & Wojnar, 2016), all of which are commonly used to avoid negative emotions (Dennet, 2018). Furthermore, OCD tendencies and perfectionism often play a role in both AN and ON, as does a strong need for control (Dunn & Bratman, 2016). Finally, as discussed in the previous chapter, ON behaviours and thoughts, like those of AN, are also ego-syntonic, meaning that they are experienced as being in accordance with one's values and personality (Barthels et al., 2015).

Considering that ON can also be a precursor to AN (Dennet, 2018) or a more socially acceptable form of AN that results from ED treatment (Segura et al., 2015), effective therapeutic interventions for AN and ON could be similar. It may therefore be pertinent for researchers to begin examining the effectiveness that therapeutic modalities currently used in the treatment of AN have in cases of ON. Until that research is done, however, counsellors and therapists who are faced with helping individuals with ON should look to literature on AN treatment to guide them.

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The Potential of Acceptance and Commitment Therapy in the Treatment of Orthorexia

A thorough look at the literature on treatment for EDs shows that cognitive behavioural therapy (CBT) is generally understood to be the most efficacious and most researched psychological intervention for EDs (National Institute for Clinical Excellence, 2004), especially BN. CBT and modified versions of cognitive therapy (CT), however, do not seem to be as effective for the treatment of AN, even though they are commonly employed (Juarascio et al., 2010; Wilson, 2005). This is likely because the ego-syntonic nature of AN behaviours (Juarascio et al., 2010) makes those struggling with AN particularly resistant to modifying their thoughts and beliefs and reasoning with themselves (Guarda, 2008)—a key aim of CBT and other CTs.

Indeed, this is likely also the case with ON, as Younger (2016), in her struggle with ON, explained that modifying her thinking about extreme healthy eating was very difficult:

Because I am so extreme, because I am *wired* that way, I can't always reason with myself in the moment. That has been the hardest part of my recovery process, hands down: determining whether an extreme is good or bad, right or wrong, worthy or unworthy of my attention. (p. 111).

It therefore stands to reason that CBT and CTs may fall short when it comes ON as well.

While traditional CBT and CTs may have their shortcomings when used exclusively, there is currently no model of treatment that has clearly shown to be most effective in the treatment of AN (Carter et al., 2011). Acceptance and Commitment Therapy (ACT), however, is a therapeutic model that has shown promise in the treatment of AN and subclinical eating disorders (Baer, Fischer, & Huss, 2005; Heffner, Sperry, Eifert, & Detweiler, 2002; Kristeller, Baer, & Quillian-Wolever, 2006). In fact, a study by Juarascio et al. (2010) compared the effectiveness of ACT to that of traditional CT in the treatment of subclinical eating pathology, of which ON could currently be considered a part of. The researchers found that ACT was much more effective than CT in reducing problematic eating behaviours among participants.

Not only does ACT show potential to be as effective, if not more effective, than CTs in the treatment of AN and subclinical eating disorders, studies show that ACT is effective in the treatment of hypochondriasis and health anxiety (Lovas & Barsky, 2010; McManus, Surawy, Muse, Vazquez-Montes, & Williams, 2012; Williams, McManus, & Muse 2011)—two phenomena that are commonly part of the ON picture. It is for these reasons that ACT should be considered as a therapeutic framework to treat ON.

ACT: A Brief Overview

ACT is a process-based form of therapy developed in the 1980's by Steven C. Hayes and a team of colleagues at the University of Nevada (Norcross & Prochaska, 2014). Since its inception, it has been widely employed by psychologists and counsellors and has been useful in helping clients mindfully manage their behaviour in the presence of negative thoughts and uncomfortable emotions (Bankhart, 2007). ACT therefore rejects the idea that humans are, by nature, psychologically happy and healthy beings and instead acknowledges that we all have tendencies toward psychological destructiveness (Norcross & Prochaska, 2014).

Bacon, Farhall, and Fossey (2014) explained that when we feel threatened or engage in destructive thought processes, we often try to avoid or wrestle with the associated negative or uncomfortable feelings. This wrestling or internal struggle with negative thoughts and emotions ultimately leads to greater suffering (Bacon et al., 2014). In order to reduce this suffering, ACT

aims to change the relationship between an individual and their thoughts and emotions rather than changing the thoughts and emotions themselves (Fletcher & Hayes, 2005). The goal of ACT, then, is to reduce unnecessary suffering by increasing psychological flexibility. According to Fletcher and Hayes (2005), psychological flexibility refers to one's "ability to fully contact the present moment and the psychological reactions it produces as a conscious person and to persist or change behaviour in the situation in the service of chosen values" (p. 319). In other words, psychological flexibility is the ability to let go of the inner struggle with adverse thoughts or feelings without trying to change them, in order to take purposeful action in life.

Psychological inflexibility, on the other hand, is the product of experiential avoidance, the inability to face thoughts, emotions, and situations that make one uncomfortable, and fusion, the tendency to see ourselves and our thoughts as one and the same (Boone, Genrich, Mundy, & Stahl, 2015). Positive change occurs when a psychologically inflexible person learns to increase their psychological flexibility by learning to manage their behaviour in the presence of uncomfortable or negative inner events (Bankhart, 2007).

Psychological Inflexibility and EDs

Psychological inflexibility is a key feature of EDs, including ON, in that struggling individuals try to exert control over distressing thoughts and feelings (Tiggemann & Raven, 1998). An individual with ON, for example, may try to control distressing thoughts about their health or chemicals in food, for instance, by obsessively managing the type and quality of food they eat. While controlling one's food intake can work to reduce uncomfortable thoughts about one's health for a short period of time, the thoughts inevitably return (Juarascio et al., 2010). Experiential avoidance is also a common habit among individuals with EDs (Meyer, Waller, & Watson, 2000), and is likely common among individuals with ON as well (Bratman & Knight, 2000). ED behaviours are thus used to avoid negative experiences, such as unpleasant emotions and thoughts. In individuals with ON, these negative experiences may manifest as hypochondriacal fears (Barthels et al., 2015), and obsessing over healthy eating appears to be a method of experiential avoidance.

Thus, ACT employs mindfulness techniques that aim to help clients to reduce cognitive control and "stop the (counterproductive) struggle with unpleasant thoughts or feelings and to decrease attempts to avoid or alter these internal experiences" (Juarascio et al., 2010). Since ED behaviours are often used as a way to push away distressing thoughts and feelings, Juarascio et al. (2010) argued that becoming more accepting and tolerant of one's thoughts could reduce the need to employ ED behaviours. Indeed, it makes intuitive sense that working with clients struggling with ON, which is defined by its need to rigidly control food, to reduce rigid cognitive control may be an effective treatment aim (Heffner et al., 2002; Juarascio et al., 2010). In addition to this, by helping clients identify their core values, values outside of food, body, and health in the case of ON, ACT seeks to motivate clients to change their behaviours so that they are acting in accordance with their values.

Increasing Psychological Flexibility with ACT's Core Processes

There are six core processes in ACT—acceptance, cognitive defusion, contact with the present moment, self as context, values, and committed action—that when adopted and implemented together result in greater psychological flexibility. Acceptance, cognitive defusion, contact with the present moment, and self as context, are considered mindfulness processes,

while values and committed action are commitment and behaviour change processes (Fletcher & Hayes, 2005).

It is generally believed that each of these core processes complements the other and is necessary in order to increase psychological flexibility (Bond, Hayes, Lillis, Luoma, & Masuda, 2006). When it comes to using ACT for treating EDs and subclinical EDs, however, it is unclear if some core processes are more impactful than others (Juarascio et al., 2010). Until that research is done, counsellors and therapists should view the core processes of ACT as working pairs that reinforce each other (Bacon et al., 2014) and discern for themselves which processes seem to be more important than others.

Acceptance

The first of these core processes, acceptance, is an antidote to experiential avoidance (Bond et al., 2006). It involves learning to embrace arising thoughts and emotions simply as they are without trying to change them in any way (Fletcher & Hayes, 2005). A useful metaphor that counsellors and therapists can use to illustrate the effectiveness of acceptance is that of the Chinese finger trap (Heffner et al., 2002). Heffner et al., (2002) explained that in working with an adolescent girl with AN, her clinician gave her a finger trap to show the client that the more she exerted control, the tighter the trap became on her fingers. It was only when she brought her fingers together and stopped fighting the trap, that she could slide them out. Through this metaphor, the client learned that her attempts to control her food intake and her body had been unsuccessful, and had resulted in a feeling of having less control overall (Heffner et al., 2002).

This same lesson could be used in the treatment of clients with ON to illustrate that their attempts to control their health through food only result in more anxiety about their health

(Bratman & Knight, 2000). Instead of controlling, clients could be taught to notice uncomfortable sensations in the body that arise when thinking fearful thoughts around food and health and allow them to pass. Since helping clients to become more flexible, adaptive, and moderate in their approach to food and health is a goal of ON treatment (Miller & Pumariega, 2001), acceptance could also play a key role in helping clients adjust to new ways of eating and new beliefs around health.

Defusion

The next core process, cognitive defusion, is aimed at changing the impact or response that a specific thought or belief has by making it seem less plausible (McCracken & Vowles, 2014). Put differently, it is the process of changing the way a client relates to a thought or emotion, rather than changing the thought or emotion itself, by showing the client the difference between thoughts and reality (Bond et al., 2006). With defusion, internal processes such as thoughts and emotions "come to be viewed as just mental activity, reducing the impact on behavioural responses" (Bacon et al., 2014, p. 2). To help clients grasp the concept of defusion, a therapist may use a variety of strategies. Bond et al., (2006) suggested repeating a word aloud until it loses meaning and becomes nothing but a sound, thanking the thought for providing entertainment, or labeling the thought as "thinking".

Juarascio et al. (2010) acknowledged that ED thoughts about food and body can be very difficult to change, so using the concept of defusion to teach clients not to take their thoughts so seriously is a key to treatment. When it comes to ON, clients will likely not want to initially abandon the beliefs they have around food and health, but defusion can help them to recognize that they are merely thoughts and beliefs, and not necessarily truth, thus potentially reducing ON

behaviours. Defusion could also be used to reduce hypochondriacal fears and health anxiety associated with ON, which is an important aspect of treatment for those with ON (Barthels et al., 2015).

Contact with the Present Moment

Contact with the present moment, the next core process, involves actively bringing one's attention to current thoughts, feelings, and physical sensations as one experiences them in order to increase self-awareness and prevent the mind from being stuck in the past or future (Boone et al., 2015). Fletcher and Hayes (2005) referred to this as "dispassionate observation" (p. 321). In order to help clients achieve contact with the present moment, therapists encourage clients to refrain from using language to predict and judge events and experiences and instead try and use it merely as a descriptive tool (Bond et al., 2006). Someone with health anxiety, for example, may use predictive language to interpret an upset stomach as evidence of an illness, though when one is present with the sensation it can be neutrally described as a flipping feeling in the stomach.

Interestingly, studies have reported that relaxation training, such as practicing presence through progressive muscle relaxation, for instance, can specifically help with anxiety that often onsets before and after meals in those with EDs (Shapiro et al., 2008), and with health anxiety (Barsky, Ahern, Bauer, Nolido, & Orav, 2013; Schröder, Heider, Zaby, & Göllner, 2012). Teaching clients with ON to be present could also encourage them to treat each meal as its own event and refrain from worrying about future meals or future health consequences.

Self as Context

Self as context, the next process in ACT, refers to the identification of a transcendent self who observes our thoughts and feelings from a place of non-judgment (Fletcher & Hayes, 2005). Clients learn, through this practice of mindfulness, that they are not their thoughts and emotions, but rather the theatre in which thoughts and emotions play out; they come to see themselves as "a context for verbal knowing, not the content of that knowing" (Bond et al., 2006, p.8).

Heffner et al., (2002) explained that this concept could be communicated to clients using a chess board analogy, where the chess board, like the self, is the constant, unchanging context where the chess pieces, like thoughts and emotions, play out a game. Therapists and counsellors may encourage clients with ON to see themselves as the context in which cultural ideas about food, health, and body are playing out, for instance. Interestingly, mindfulness practices, of which self as context can be considered, have been shown to be associated with better ED treatment outcomes (Baer et al., 2005; Kristeller et al., 2006; Sandoz, Wilson, Merwin, & Kellum, 2013).

Values

By being mindfully aware of oneself, one is able to clarify their core values, which is the next process in ACT—and one that plays a significant role in contributing to change (Bacon et al., 2014). Values, in the context of ACT, are the ways in which we want to engage with the world around us (Boone et al., 2015). Healthy relationships and integrity are a few examples of values.

Establishing values in unhealthy ways that demonstrate the need for compliance with others or the avoidance of one's feelings is discouraged (Bond et al., 2006). An individual with

ON, for example, may believe that they should value their health because our culture equates health with thinness and beauty, though it would be the job of the counsellor or therapist to help the client to dig deeper to identify more authentic values outside of the realm of food, body, and health.

According to Juarascio et al., (2010),

by helping identify core values and the broader goals emanating from them, ACT helps the patient not only reorient toward more meaningful activities but to / become more willing to tolerate internal discomfort for the sake of what is truly important. (p. 178-9)
If a client with ON cites healthy relationships as one of their core values, for instance, they may be more willing to loosen their food rules in order to go out to dinner with family or friends.
Furthermore, because of this focus on identifying core values, ACT may be useful in increasing motivation to change for clients with EDs (Juarascio et al., 2010) and potentially ON as well.

Committed Action

The final process of ACT, committed action, involves using one's newly identified values to inform and propel them forward in a particular direction in life. Typically, the therapist will work with the client to develop short, medium, and long-term goals to guide their actions and reinforce commitment (Fletcher & Hayes, 2005). The conscious, purposeful steps one takes towards these goals, such as challenging an "off-limits" food with the goal of overcoming a fear of it and being able to incorporate it in one's diet, demonstrate committed action. Ultimately, personal agency is achieved when the client is able to take action towards their life goals in spite of negative internal or external experiences.

Combining Therapeutic Models in the Treatment of ON

While ACT provides a straightforward framework combining mindfulness and value-based action, counsellors and therapists working with individuals with ON should not feel limited to employing one single framework. Elements of CBT, for instance, such as cognitive restructuring and identifying destructive thinking patterns, may be effective later in therapy when addressing specific food-related beliefs (Barthels et al., 2015). Exposure to "off-limits" foods in order to overcome fear is another CBT technique that is necessary in ON treatment (Juarascio et al., 2010). As Dooner (2019) explained, until individuals with ON learn to increase their tolerance of what they deem to be "unhealthy" foods, their "orthorexia will continue to have power over [them] from the shadows" (p. 119). Ultimately, therapeutic treatment plans should be devised on an individual basis at the discretion of the counsellor or therapist and should cater to each client's specific presentation of ON (Arusoğlu et al., 2008).

Conclusion

In closing, while ON is not yet a DSM-diagnosable mental illness, the all-consuming obsession around food, body, and health may make it difficult for individuals to live happy, full lives, thus it is important for counsellors and therapists to be informed about it. In order for counsellors and therapists to effectively identify and assess for ON, they must familiarize themselves with the existing literature on ON and may employ existing assessment tools, such as the BOT. It is also important that counsellors and therapists take time to consider various key factors that may play a role in treating clients with ON, such as their own relationship with food, body, and health, or the messaging the client is receiving from other practitioners about food and health.

Until research is done to show which therapeutic interventions are specifically effective in the treatment of ON, counsellors and therapists should draw on existing literature on effective therapeutic interventions for AN and subclinical EDs, such as ACT, when faced with clients struggling with ON. ACT may be particularly suitable because it invites clients with EDs to lessen the intense internal struggle around food, body, and health, and encourages them to accept and tolerate uncomfortable emotions and thoughts by becoming more mindful and present. In addition to this, ACT's focus on helping the client identify core values beyond food, body, and health, may help increase their motivation to change.

Other interventions, such as aspects of CBT, should be considered as part of treatment as well. While these interventions are certainly not exhaustive when it comes to the effective treatment of AN, they may provide counsellors and therapists with a starting point for ON treatment while we wait for research to tell us more. Until then, knowledge sharing and supervision from counsellors and therapists who have gained clinical experience working with individuals with ON will be necessary in order to advance our knowledge on how to therapeutically treat ON.

Chapter Five: Summary and Reflection

The primary aim of this thesis was to holistically explore orthorexia nervosa by examining both the cultural and individual factors that contribute to ON. Understanding how cultural forces such as healthism and diet culture contribute to a climate in which ON can thrive was an important aspect of this aim, as was exploring the individual factors like experiencing health anxiety or having an eating disorder history. The secondary aim was to provide counsellors and therapists with information about how to help clients struggling with ON.

By taking a thorough look at our modern, Western culture, one can see that eating behaviours common among those with ON are very often sanctioned and even celebrated. Messaging and influences from medicine, holistic health, diet culture, and our modern food habits have all contributed to the health and food-obsessed orthorexic culture in which we are currently living.

Continually being inundated with information about threats to our health, instructions for food-related practices that can help mitigate these threats, and images of what our bodies must look like in order to be deemed attractive and healthy, can create an incredible amount of anxiety for individuals—especially since the dominant discourse of healthism states that health is our personal responsibility and moral obligation (Crawford, 1980). Rather than calming our health-related fears, however, undertaking health-related practices intended to prevent disease, such as eating organic produce, can actually lead to even more anxiety (Crawford, 2004), which could conceivably contribute to orthorexic eating behaviour.

Of course, these cultural factors that have likely contributed to the rise of ON are not all encompassing when it comes to why individuals develop ON. We are all saturated in orthorexic messaging, after all, and not all of us go on to struggle with ON. Having existing or past experience with mental health challenges like health anxiety, OCD, and eating disorders, may make some individuals more likely to develop ON, for instance. Furthermore, other individual factors, such as one's personal diet, level of body image satisfaction, gender, tendency toward perfectionism, level of self-esteem, and attachment style, may all be an important part of the ON picture.

While we still know relatively little about the factors that may make some individuals more prone to struggling with ON, counsellors and therapists must be as informed as possible about ON in order to provide effective therapeutic help for those struggling. Educating oneself about the nature of ON, as well as contributing factors, both cultural and individual, is arguably the most important aspect of working with individuals with ON. Of course, counsellors and therapists must also be willing to confront and challenge their own ideas about health, food, and body in order to be authentic in their work with individuals presenting with ON.

For therapists looking for a therapeutic framework to use with clients presenting with ON, ACT could be useful, as it has shown potential in the treatment of AN and subclinical eating disorders. ACT encourages clients to surrender to their internal struggles, which in the case of ON is struggles with food, body, and health, while encouraging them to accept and tolerate internal and external discomfort by learning to live in the present moment. Due to ACT's focus on core values, it could be useful in increasing one's motivation to change, which is often low in EDs and ON. Of course, counsellors and therapists may employ other therapeutic interventions in tandem with ACT, such as elements of CBT.

Strengths and Limitations

While this thesis provided an in depth look at the cultural and individual forces that may contribute to ON, the aspects discussed in this thesis are certainly not exhaustive. For instance, though there is some research examining the prevalence of ON in certain communities of people, such as athletes (Segura-García et al., 2012) and artists (Aksoydan & Camci, 2009), for instance, it was not explored in this thesis. Furthermore, the role of nervous system dysregulation in EDs (Manley & DeJong, 2014) was not discussed or explored as a potential individual factor contributing to ON behaviour.

While providing guidance and a therapeutic framework for counsellors and therapists to use is a valuable aspect of this thesis, the scope is limited in that it focuses almost solely on ACT. Since this thesis did not include primary research on ACT or other therapeutic interventions for ON, extrapolating ACT for use in the treatment of ON is largely theoretical. Finally, the limitations of the research that has been done on ON, with respect to the lack of agreed upon proposed diagnostic criteria and the lack of a valid and reliable way to measure ON, undoubtedly limit the scope of this thesis.

Future Research

Since the first piece of writing on ON was published only twenty-two years ago and because ON it is not yet recognized as a DSM-diagnosable mental illness, the research on the subject is indeed in its early stages. Furthermore, as previously mentioned, much of the research that is available employs the ORTHO-15 scale, which does not provide a highly reliable or valid measure of ON (Dunn & Bratman, 2016; Koven & Abry, 2015; Oberle et al., 2017). Perhaps what is needed most, then, is a reliable and valid test to measure ON that could be employed in future research. This, of course, would require agreement among ON researchers on the criteria for ON.

It would also be helpful for future research to further investigate the relationship between culture and ON, since there are very few studies pertaining to ON and culture. Suggestions for areas of research include the relationship between social media and ON, or the relationship between medical dietary interventions and ON. Research examining the cultural factors contributing to ON could help to provide a more holistic understanding of ON, and perhaps prevent the pathologization of those struggling.

In addition to this, more research could be done on the relationship between ON and other eating disorders. If further supported, the research by Segura-García et al. (2015) which suggested that ON could be a side-effect of ED treatment, a stage in the recovery process, or a subsection of AN, could have huge implications for the way we conceptualize and treat ON. If more research supports the idea that ON is a side-effect of ED treatment, for instance, it could shed light on how ED treatment needs to change to help clients develop a healthier and more balanced relationship with food, rather than an orthorexic one.

Personal Reflection

While writing this thesis, I could not help but examine more closely my own relationship with food and health. I began to think more critically about the way I chose to eat, the beliefs I had about food, and the cultural influences that shaped them. Behaviours and beliefs I had come to accept as necessary parts of living a healthy life no longer seemed to hold the promises they once did, and I was able to further loosen the grip I had on my diet. As I challenged some of the insidious orthorexic behaviours and beliefs that I was still clinging to long after I thought my struggles with disordered eating had ended, I noticed some internal resistance and anxiety. These feelings made me realize these behaviours and beliefs were masking some deeper fears, including fears around my health. Rather than allowing myself to sit with and accept these uncomfortable fears, I was denying them. Though there were thankfully few of them, the food rules that remained with me had built up a false sense of protection and control that I had not fully let go of.

Thankfully, through writing this thesis I have gained greater insight into my own struggles with disordered eating and ON, which has allowed me to develop a deeper sense of self-compassion. My ultimate hope, however, is that I can use what I have learned here in my own therapeutic work to help others suffering with EDs and disordered eating to find freedom from their struggles.

Appendix A

The Bratman Orthorexia Test (Self-Test)

If you are a healthy-diet enthusiast, and you answer yes to **any** of the following questions, you may be developing orthorexia nervosa:

(1) I spend so much of my life thinking about, choosing and preparing healthy food that it interferes with other dimensions of my life, such as love, creativity, family, friendship, work and school.

(2) When I eat any food I regard to be unhealthy, I feel anxious, guilty, impure, unclean and/or defiled; even to be near such foods disturbs me, and I feel judgmental of others who eat such foods.

(3) My personal sense of peace, happiness, joy, safety and self-esteem is excessively dependent on the purity and rightness of what I eat.

(4) Sometimes I would like to relax my self-imposed "good food" rules for a special occasion, such as a wedding or a meal with family or friends, but I find that I cannot. (Note: If you have a medical condition in which it is unsafe for you to make ANY exception to your diet, then this item does not apply.)

(5) Over time, I have steadily eliminated more foods and expanded my list of food rules in an attempt to maintain or enhance health benefits; sometimes, I may take an existing food theory and add to it with beliefs of my own.

(6) Following my theory of healthy eating has caused me to lose more weight than most people would say is good for me, or has caused other signs of malnutrition such as hair loss, loss of menstruation or skin problems (Bratman, 2017a).

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