

**DEVELOPMENT OF AN ASSESSMENT GUIDE FOR A PROPOSED EATING
DISORDER: ORTHOREXIA NERVOSA**

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Bachelor of Arts and Science, University of Lethbridge, 2013

A Project

Submitted to the School of Graduate Studies
of the University of Lethbridge
in Partial Fulfilment of the
Requirements for the Degree

**MASTER OF EDUCATION
(COUNSELLING PSYCHOLOGY)**

Faculty of Education
University of Lethbridge
LETHBRIDGE, ALBERTA, CANADA

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Abstract

The term “orthorexia nervosa” is used to describe individuals whose restrictive dietary practices and mental preoccupation with healthy food consumption have led to both physical and mental deterioration. There is limited information available on the assessment of orthorexia which makes it difficult for mental health clinicians to assess whether their clients are potentially at-risk or suffering from orthorexia. The intent of this project was to create an assessment guide that can be used by mental health practitioners with the purpose of assessing whether a client is displaying behavioural and psychological characteristics that would put them at-risk for orthorexia. The guide is meant to serve as an assessment tool and is not meant to replace or make a diagnosis of a mental disorder. Using a three-stage decision tree model, the guide instructs practitioners to use clinical judgement and criteria to sequentially assess for client’s risk for orthorexia.

Acknowledgement

I acknowledge my supervisor, Dr. Brenda Leung and my project committee member, Dr. Danny Balderson. Thank-you for your continued support and flexibility in letting me create a project that is both professional and practical in the field of counselling psychology. I give appreciation to my parents, Chris and Carol McAtee for their ever-endearing wish for me to get involved in higher education. Finally, my large group of friends who've supported me on this journey deserve high praise. Thank-you Dylan, Brooke, Jeremy, Clay, Dane, Taylor, Matt, Sarah, Jordan, Elliot, Ryan, Sean, Nicole, Josh, Darcie, Wanda, Steve, and Rob. May we continue to stay connected in the years to come.

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Chapter 1: Introduction

Overview

Orthorexia nervosa (ON) is defined as an unhealthy obsession with healthy food eating where the sufferers become obsessed with eating only foods they deem to be 'healthy' and 'pure' in order to improve their health or performance (Bratman & Knight, 2000). Individuals who are at-risk or who suffer from orthorexia typically begin with a desire to achieve optimal health. Unfortunately, this desire for proper nutrition and optimal health can be taken to the extreme, where the obsession with health leads to compulsive behaviours and/or mental preoccupation regarding affirmative and restrictive dietary practices (Dunn & Bratman, 2015), malnutrition (Moroze, Dunn, Craig Holland, Yager, & Weintraub, 2015), reduced quality of life, and obsessive-compulsive tendencies (Koven & Abry, 2015).

Given that there is no concrete diagnostic criterion for orthorexia, there continues to be an ongoing discussion among clinicians and researchers about the assessment and diagnosis of patients displaying characteristics of orthorexia (Dunn, Gibbs, Whitney, & Starosta, 2016). Although the field has been working towards constructing new assessment methods for orthorexia screening (Missbach, Dunn, & König, 2016), there is limited information available outlining the specific assessment steps that could be taken if a mental health practitioner suspects that a patient might be at-risk for orthorexia.

While there are some self-report tools available to assess for orthorexia (Bratman & Knight, 2000; Donini, Marsili, Graziani, Imbriale, & Cannella, 2005; Gleaves, Graham, & Ambwani, 2013; Moroze et al., 2015; Ramacciotti et al., 2011), these tools are not readily available to clinicians and have been used primarily in research contexts

(Dunn & Bratman, 2015). However, the lack of screening instruments for orthorexia is not surprising given the limited empirical data that exists on the prevalence rates for orthorexia along with inconsistent data from the literature, and a small number of scientific studies (Olejniczak et al., 2017).

Recent studies using more accurate self-report tools for orthorexia have suggested prevalence rates ranging from under 1% (Dunn et al., 2016) to 3% (Olejniczak et al., 2017) among clients. These numbers contrast previous studies which suggested prevalence rates ranging from 6.9% (Fidan, Ertekin, Işıkay, & Kirpınar, 2010) among medical students to 57.6% (Ramacciotti et al., 2011) among the general population. The reduced prevalence rate can be attributed to more accurate psychometric measures for screening and diagnosing orthorexia (Missbach et al., 2016). For example, researchers have been including self-report questions and topics that correspond with the criterion outlined in the proposed diagnostic criteria for orthorexia (Dunn & Bratman, 2015).

Despite these efforts, there remains a gap in the literature when it comes to an assessment guide highlighting questions and topics that could be used by clinicians working with eating disorders to assess whether or not their clients might be at-risk for orthorexia.

Project Purpose

Assessments play an integral role in the counselling context. Depending on where the counsellor is at in the counselling process, the scope of assessment in the counselling context includes (a) screening and initial assessment, (b) diagnosis, (c) case conceptualization, (d) treatment planning and goal identification, and (e) progress evaluation (Watson & Flamez, 2015).

The overall intent of this project is to focus on screening and initial assessment of orthorexia, through the development of an assessment guide for psychologists, social workers, and other mental health professionals working in a private clinical setting. The assessment guide is intended to be used as a tool to determine if a client is at-risk for orthorexia and is not intended to diagnose orthorexia nervosa or to replace medical diagnosis or consultation.

Project Procedures

Four literature reviews were conducted to gather the information needed to create the assessment guide. The first review contains information on orthorexia nervosa; the second on the assessment process for eating disorders; the third on the instruments for eating disorder evaluation and data gathering; and the fourth on information on creating a semi-structured clinical interview for orthorexia. Information from these literature reviews were then synthesized to create the assessment guide, which consists of three stages.

In the first stage the assessor conducts an interview with the client to identify his/her presenting problems and reasons for assessment. The Eating Disorder Screen for Primary Care (ESP; Cotton, Ball, Robinson, 2003) is an eating disorder specific screening tool that can be used if the assessor suspects there is a risk of an eating disorder.

If the client meets the criterion for the ESP, the assessor conducts the second stage of the assessment guide. In the second stage the assessor administers three self-report instruments to assess whether or not the client is exhibiting characteristics that would put them at-risk for orthorexia. The first instrument, is the Eating Attitudes Test

(EAT-26; Garner & Garfinkel, 1982), which is a preliminary screener to detect at-risk characteristics of eating disorders. The other two self-report instruments, the Eating Habits Questionnaire (Gleaves et al., 2013) and the ORTHO-15 (Donini et al., 2005) are designed to screen for at-risk characteristics for orthorexia.

In the third stage, the assessor performs a semi-structured clinical interview and completes a formal assessment report. The interview template used is based on three unstructured interview formats and one semi-structured interview assessment. One of these articles provides information about conducting unstructured clinical interviews when making an assessment based on the DSM-IV (Jones, 2010); the other two articles highlight topics and probing questions that can be used in an interview when assessing for eating disorders (Crowther & Sherwood, 1997; Stewart & Williamson, 2007). The semi-structured interview format (EDE 17.0D; Fairburn, Cooper, O'Connor, 2014) used in the creation of the assessment guide is one of the most widely used assessments for diagnosing and screening eating disorder.

Chapter 2: Orthorexia Nervosa—A Literature Review

Overview

The political economist Robert Crawford first used the term healthism to describe “the preoccupation with personal health as a primary – often the primary – focus for the definition and achievement of well-being” (Crawford, 1980, p. 368). More recently, Gyrisis Scrinis (2013) highlighted the relationship between healthism and self-discipline with respect to the context of foods, diets, and bodily processes. Scrinis (2008, p. 46) uses the term “the nutrition-conscious individual” to describe individuals who have established personal nutritional standards that must be monitored, measured, and scientifically validated. Such a view is shared by multiple researchers (Bratman & Knight, 2000; Donini et al., 2005; Mathieu, 2005) who used the term ‘orthorexia nervosa’ to describe patients who spent significant amounts of time planning, buying, and preparing nutritious meals where each departure from this regime caused significant anxiety and guilt, which led to further constraining of the dietary habits.

Definition of orthorexia nervosa. Orthorexia is described as an “extreme care for and selection of what is considered pure [and] healthy food” (Bartrina, 2007, p. 313). Individuals who display orthorexic behaviours take healthy eating to the extreme through their dietary practices, which are tied to a moral value for food, self-discipline, and weight control (Musolino, Warin, Wade, & Gilchrist, 2015). Bratman maintains that in contrast to more common eating pathologies such as anorexia nervosa or bulimia nervosa where the motivation is on weight loss, individuals with orthorexia are more compelled by a desire to achieve personal perfection and purity (Bratman & Knight, 2000; Mathieu, 2005).

Furthermore, Bratman (2000) originally recognized orthorexia symptoms among his patients, he argued that orthorexia should be categorized as a unique form of an eating disorder due to the impairments orthorexia caused in daily areas of functioning, such as at work or at school and among friends and family. Other researchers have hypothesized that orthorexia is an altered behaviour within the eating disorder spectrum where changes in test subscale scores (e.g., body and shape subscale; food quality subscale) could be interpreted (i.e., in a psychopathological sense) as an evolution of the illness where patients shift their interest from the amount of food towards the quality of food (Brytek-Matera, Rogoza, Gramaglia, & Zeppegno, 2015; Segura-Garcia et al., 2015). From this perspective, anorexia and bulimia are on one extreme end of the spectrum, and ON is a less serious condition on the other end of the spectrum (Segura-Garcia et al., 2015).

Proposed diagnostic criteria for orthorexia nervosa. According to the current version of the diagnostic and statistical manual of mental disorders (5th ed.; *DSM-5*; American Psychiatric Association, 2013), the feeding and eating disorders are separated into three primary categories: anorexia nervosa (AN), binge eating disorder (BED), bulimia nervosa (BN); and two alternative categories: other specified feeding or eating disorder (OSFED) and unspecified feeding or eating disorder (UFED). The unspecified feeding or eating disorder category was specifically designed for individuals displaying clinically significant eating or feeding disorders but who do not meet criteria for one of the major eating disorders or for the other specified feeding or eating disorder (OSFED) category (APA, 2013). The other specified feeding or eating disorder (OSFED) includes atypical anorexia or atypical bulimia (of low frequency and/or limited duration), binge

eating disorder (of low frequency and/or limited duration), purging disorder, and night eating syndrome (APA, 2013).

Orthorexia nervosa is included under the unspecified feeding or eating disorder (UFED) category, because it has yet to be defined as a distinct disorder. To be considered for the UFED category, a patient should be screened and determined not to meet the diagnostic criteria for a major eating disorder (AN, BN, BED) or for the OSFED category (APA, 2013). Consequently, it is important for clinicians screening for orthorexia to first perform a general assessment for eating disorders to determine that the client does not better qualify for an eating disorder already recognized in the DSM-V.

The preliminary diagnostic criteria for orthorexia was first developed by Moroze et al. (2015) and furthered by Dunn and Bratman (2015). The proposal by Dunn and Bratman (2015) was generated from an extensive critical review of published case studies, narrative descriptions offered by eating disorders clinicians and several hundred self-reports of orthorexia, which were sent to a website maintained by Steven Bratman.

Chapter 3: The Assessment Process—A Literature Review

Overview

An assessment can be defined as “a process that integrates test information with information from other sources (e.g., information from other tests, employment, health, or psychological history)” (American Educational Research Association, American Psychological Association, National Council on Educational Measurement, 1999, p. 3). By collecting client data from several sources, and using a combination of formal and informal strategies, counsellors can begin to formulate an accurate understanding of the client and his or her presenting concerns (Watson & Flamez, 2015).

Providing an assessment to a client who is suspected to have an eating disorder requires a multimodal approach, requiring evaluation of psychosocial, psychological, and physical impairments that have been potentially caused by the eating disorder (Peterson, Berg, Durkin, & Jappe, 2015). Anderson and Murray (2010) have designed a functional approach to developing assessment formats that can be tailored for eating disorders and eating-related problems. Their approach provides counsellors with a broad framework that includes both theoretical and practical needs, while also allowing the counsellor the flexibility to tailor the assessment to meet their clients’ individual needs. The approach presented by Anderson and Murray can be summarized using four key steps: the context of the assessment (“where”), the function of the assessment (“why”), the constructs of interest (“what”), and the specific instruments in the assessment (“how”).

Step One: The Context of the Assessment

In the first step the counsellor determines “where” in the broad context, the assessment will occur. The context used (e.g., inpatient facility, private practice) dictates

the function of the assessment (Anderson & Murray, 2010). In this project, the assessment guide has been created for clinicians working in the field of mental health working in a private context with eating disorder clients. Counsellors working in private practice often face many limitations when conducting extensive assessments. These include time constraints to conduct the assessment, available assessments, and limited insurance reimbursements for lengthy assessments (Eisman et al., 2000; Turchik, Karpenko, Hammers, & McNamara, 2007). Keeping this in mind, this project aims to create an assessment guide that includes brief screening tools and an semi-structured clinical interview format opposed to more elaborate and lengthy structured interview formats.

Step Two: The Function of the Assessment

In the second step the counsellor is responsible for determining “why” the assessment is being conducted. The number of different functions for an assessment can be grouped into several common categories including screening and initial assessment, diagnosis, treatment planning, and outcome measures (Anderson & Murray, 2010). The focus of the assessment guide will be the screening and initial assessment category, which aims to determine if a patient is at-risk for a particular disorder (Anderson & Murray, 2010). Screening measures aim to gather information from a broad perspective about the most common signs and symptoms of eating disorders (e.g., compensatory behaviours, body image disturbance, underweight; Crowther & Sherwood, 1997). In contrast, invigilator-led interviews for eating disorders attempt to distinguish what diagnosis or type of feeding or eating disorder the patient is likely to be experiencing (Crowther & Sherwood, 1997).

Step Three: The Constructs of Interest

In the third step the assessor asks “what” specific attitudes, thoughts, and behaviours should be assessed (Anderson & Murray, 2010). The process of initial screening and assessment requires broad information gathering about the most common signs and symptoms of a particular disorder (Anderson & Murray, 2010). The specific role of the mental health clinician is to evaluate the key psychological, behavioural, psychosocial components that have led to and continue to maintain the eating disorder characteristics. Common subscale constructs in the eating disorder literature include body shape and image, dietary restrictions and limitations, beliefs about food consumption, interpersonal functioning, and behavioural observations (e.g., amount of food consumed, mannerisms and attitudes toward body functioning). To screen for each of these domains, the clinician uses various formats of assessment tools such as self-report questionnaires, unstructured interviews, semistructured interviews, and structured interviews.

The domains of interest when it comes to screening for orthorexia can be found in the proposed diagnostic criteria for orthorexia (Dunn & Bratman, 2015) along with several literature reviews (Håman, Barker-Ruchti, Patriksson, & Lindgren, 2015; Koven & Abry, 2015; Varga, Dukay-Szabó, Túry, van Furth, & van Furth Eric, 2013). The primary distinguishing factors include (a) ideological or moral theories and beliefs about the role of food, (b) exaggerated emotional distress in relationship to food choices perceived as unhealthy, and (c) compulsive behaviour and mental preoccupation that have become clinically significant as a result of healthy food fixation (Dunn et al., 2016; Koven & Abry, 2015; Moroze et al., 2015). There are three primary domains that could be assessed when determining clinical significance. The first domain involves physical

health where a medical professional determines if the client has sustained weight loss, medical complications, or malnutrition, because of healthy behaviour/mental preoccupation with consuming healthy food. The second and third domain are evaluated by a mental health clinician and involve evaluating the client's history of behavioural and mental health problems that have manifested because of obsessive healthy food regimens.

Step Four: The Specific Instruments in the Assessment

In the fourth step, the counsellor determines “how” he or she will assess the domains identified in the previous step (Anderson & Murray, 2010). Typically, a multidisciplinary team of health professionals (i.e., at least a medical professional, a nutritionist or dietician, and a mental health professional) is required to assess and treat eating disorders, because eating disorders impact multiple domains of functioning and often include comorbid conditions (McCormick, Onwuameze, & Paradiso, 2014).

The purpose of this project is to create an assessment guide to be used specifically by clinicians working in the field of mental health. Therefore, the instruments outlined in the next section aim to evaluate the psychological, behavioural, and psychosocial characteristics displayed by someone who is at-risk for both an eating disorder and for orthorexia.

Chapter 4: Instruments for Eating Disorder Evaluation and Data Gathering— A Literature Review

Overview

This section focuses on the types of assessment formats commonly used by clinicians to evaluate if a patient is at-risk or suffering from an eating disorder. The types of assessments in clinical and research settings for eating disorders traditionally comprise of both invigilator-led interviews and self-report questionnaires (Anderson & Murray, 2010; Fairburn & Beglin, 1994). The aim of these measures is to gather information from multiple sources to evaluate if the patient is displaying symptoms that correspond with the diagnostic criteria for a feeding and eating disorder that is in the DSM-V. It is unclear which method of assessment produces more valid measurements for eating-related pathology; however, each method has benefits and weaknesses. The section below provides an overview of self-report measures and semistructured and unstructured interview formats used in the assessment of eating disorders. Information about the self-report measures for orthorexia will also be included in this section. It is beyond the scope of this project to explore in-depth assessment measures for either eating disorders or orthorexia nervosa that are not used in the assessment guide.

Overview of self-report measures. These types of measurements serve two primary functions: (a) as screeners for the presence and/or severity of the dimensions of eating-related symptomatology and more general psychopathology and (b) as a tool to help clinicians identify and clarify specific issues in treatment planning and evaluation (Crowther & Sherwood, 1997). The benefits of self-report measures are that they are relatively easy to administer, and a growing body of research suggests patients are more

likely to respond honestly to self-report questionnaires when compared to an interview assessment (Anderson & Maloney, 2001; Watson & Flamez, 2010). Researchers suggest that this could be because patients feel more comfortable remaining anonymous without having to face an assessor in a face-to-face interview (Keel, Crow, Davis, & Mitchell, 2002).

Conversely, self-report measures are subject to error and bias, which will impact both reliability and validity (Korotitsch & Nelson-Gray, 1999). Patients may exaggerate symptoms to make their problems appear worse or they may under-report the severity or frequency of symptoms to minimize their problems. Another problem that may occur is when the patient misinterprets items on the questionnaire or responds to items in a manner that is viewed favorably by others (i.e., social desirability bias).

Self-report instruments for eating disorders. The Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, Garfinkel, 1982), the SCOFF questions (Morgan, Reid, & Lacey, 1999), the Eating Disorders Inventory (EDI; Garner, Olmstead, Polivy, 1983), and the Bulimia Test-Revised (BUILT-R; Thelen, Farmer, Wonderlich, Smith, 1991) are four of the most commonly used self-report tools to screen for eating disorders. There are two self-report eating disorder assessments used in the assessment guide.

The Eating Disorder Screen for Primary care (ESP; Cotton, Ball, Robinson, 2003) is a four-question eating disorder screening tool that is used in stage one (after the intake interview) of the assessment guide to evaluate if a more detailed assessment is required in assessing for an eating disorder. The ESP has only been validated with primary care patients and university students thus far and was developed using the performance characteristics of the SCOFF clinical prediction guide and the Questionnaire for Eating

Disorder Diagnosis (Cotton et al., 2003). According to the authors, one or no abnormal response to the ESP ruled out an eating disorder whereas three or more abnormal responses ruled in an eating disorder (Cotton, Ball, Robinson, 2003).

The EAT-26 is used in stage two of the assessment guide as a measure to assess the client's abnormal eating habits and views about body weight and shape. One benefit of using the EAT-26 in the assessment guide is that it was designed to be administered by health professionals as a quick screening tool to assess for "eating disorder risk" (Garner et al., 1982). This instrument is not meant to diagnose but instead, be used to determine whether further testing is needed or not to make an eating disorder diagnosis. The scale includes three different subscales related to Dieting, Bulimia and Food Preoccupation, and Oral Control. clients answer on a 6-point Likert scale with the following response options: Always=3, Usually=2, Often=1, Sometimes=0, Rarely=0, and Never=0. A score greater than 20 is an indicator of possible eating disordered behaviors and eating problems. The original validation study of the EAT-26 showed that the three subscales were interrelated and are reliable, making this scale a valid and economical instrument to use as an objective measure for the symptoms of AN and BN (Garner et al., 1982).

Self-report instruments for orthorexia nervosa. There are currently two self-report assessment measures developed for the measurement of orthorexia: the ORTO-15 (Donini et al., 2005) and the Eating Habits Questionnaire (EHQ; Gleaves et al., 2013). Both are included in stage two of the assessment guide.

The ORTO-15 is currently the most widely used measure to determine at-risk behaviours for orthorexia and is based on the Bratman Orthorexia Test (BOT) original items and Bratman and Knight (2000) case studies. The EHQ, is a 21-item self-report

inventory designed to identify cases in which individuals display maladaptive preoccupations with healthy eating (Gleaves et al., 2013). The ORTO-15 is a 15-item multiple choice questionnaire that purports to identify orthorexia risk (Donini et al., 2005) whereas the EHQ is a recently developed instrument that attempts to identify individuals with cognitions, feelings, and behaviours that may indicate problematic fixation on healthy eating (Gleaves et al., 2013). These self-report measures alone only identify features of orthorexia and should not be used as the sole measure in making a diagnosis or conclusion about orthorexia risk. According to Dunn et al. (2016), identifying “clinical significance” would require evaluation regarding whether the behaviours cause interpersonal impairments in the individual's ability to interact with friends/family or their ability to function at school/work.

Overview of interview measures. The initial interview is arguably one of the most valuable means of collecting data in the assessment process (Groth-Marnat, 1990) and continues to be the primary tool used when diagnosing mental disorders (DSM-V, 2013). Compared to self-report measures, interviews are used more for diagnosis, treatment planning, and specific pathological evaluation (Anderson & Murray, 2010).

An interview format serves several advantages when assessing for eating disorders. For example, Fairburn and Beglin (1994) concluded that some of the core constructs in eating disorder diagnosis are complex and ill-defined and better suited to be evaluated by a trained and skilled clinician using an interview format. An interview format may also resolve the problems that occur regarding the misconstrued interpretations made by patients when asked to self-evaluate their beliefs and thoughts about food portion control, body weight and shape (Fairburn & Beglin, 1994). Although

interviews are an optimal way to assess for eating disorders, they have several disadvantages. They usually require the assessor to have preliminary training with the instrument being used, can be time costly (on average 30 to 60 minutes), and can be personally intrusive (e.g., embarrassment, guilt, and shame about admitting to eating disorder symptoms; Fairburn & Beglin, 1994). Although there are several types of clinical interview formats available to clinicians (structured, semistructured, unstructured), the assessment guide will use the semistructured format when assessing for orthorexia.

Semi-structured clinical interview. Semistructured interviews are commonly used in research settings (Anderson & Paulosky, 2004) and typically require clinically trained assessors to conduct the interview, while some invigilator-led assessments require special intensive training (e.g., the EDE 17.0D; Fairburn, Cooper, O'Connor, 2014). The Eating Disorder Examination (EDE 17.0D; Fairburn et al., 2014) and the Interview for the Diagnosis of Eating Disorders (IDED-IV; Kutlesic, Williamson, Gleaves, Barbin, & Murphy-Eberenz, 1998) are the two most widely used semistructured interviews for eating disorders. Components from the EDE 17.0D will be used to develop the assessment guide. The benefits of using the EDE 17.0D to create the assessment guide is that it is widely available for public use, it provides helpful general guidelines for interviewers conducting any type of eating disorder assessment, and within the EDE are interviewer step-by-step procedure guidelines.

The Eating Disorders Examination (EDE; Fairburn et al., 2014) is the “gold standard” for eating disorder assessment and the most evaluated measure in invigilator-based eating disorder assessment (Berg, Peterson, Frazier, & Crow, 2012). The EDE

consists of four subscales that purport to measure cognitive features of eating disorders: restraint, eating concern, shape concern, and weight concern. The EDE requires clinicians to ask respondents to estimate the frequency and severity with which behaviors associated with eating disorders have occurred during the past three (and six) months. The breadth of symptoms assessed by the EDE allows the instrument to be used with individuals presenting with any of the five eating disorders' categories included in the DSM-V (Fairburn et al., 2014).

Chapter 5: Sem-istructured Clinical Interview for Orthorexia— A Literature Review

Overview

The semistructured clinical interview is a less formal interview strategy which follows a set of predetermined questions. Using this interview format, assessors have the freedom to ask open-ended questions outside the predetermined list of questions, which allows clients to expand on their initial responses (Watson & Flamez, 2015). Topics or questions from the interview where the client does not report having any issues can be reviewed briefly or omitted completely so that the assessor can focus on specific areas in which the client reports having the most problems. Such an approach may help the client to feel heard and understood because questions are tailored towards their specific needs.

This format of interviewing was chosen for the assessment guide, because it solved several issues when measuring whether or not a patient is displaying behaviours, thoughts, and beliefs that would put them at-risk for orthorexia. The benefit of this interview format is that it gives assessors more flexibility in determining the order, content, and wording of questions during the interview (Power, Campbell, Kitcoyne, Kitchener, & Waterman, 2010). Additionally, being able to repeat or state questions differently is a helpful tool to assist clients who may not understand some of the terms during the interview that relate to eating disorders or to orthorexia.

The other benefit of using the semistructured interview format for the assessment guide is that it gives assessors leeway to ask probing and follow-up questions for specific topics that are relevant to their case conceptualization of whether or not the client is displaying characteristics that would put them at-risk for an eating disorder or for

orthorexia. This type of interview format allows assessors to extend questions beyond the interview protocol so that they can obtain all the information they need to fully conceptualize clients risk level for an eating disorder or for orthorexia.

There are currently no formal or informal interview guidelines or interview questions designed for the assessment of orthorexia. The existing assessment literature on orthorexia is limited to research articles and case studies. Consequently, the framework for the assessment guide has been designed using themes and questions from the literature on semistructured and unstructured clinical interviews for eating disorders. The process of designing the interview began by using the proposed diagnostic criteria for orthorexia (Dunn & Bratman, 2015) as a baseline to create the subcategories for assessing for at-risk characteristics of orthorexia. The formatting of questions was based on the design used in the Eating Disorder Examination (Fairburn et al., 2014).

Additional information about eating disorder-related assessment was used from three unstructured clinical interview approaches (Crowther & Sherwood, 1997; Jones, 2010; Stewart & Williamson, 2007). The subcategories below reflect the most common themes used in unstructured eating disorder interviews.

Identifying information. The initial intake interview performed at the start of the assessment includes identifying information about the client's race/ethnicity, sex, name, relationship status, previous counselling experience, and referral source (Jones, 2010). At larger facilities (e.g., hospitals, treatment centres) the initial intake is often completed prior to the counsellor meeting with the client. However, in a private practice, information from the initial intake will often be unavailable to the clinician until he or she meets with the client.

Knowledge about the referral source is another area of importance in determining if the client is prepared for assessment or treatment (Jones, 2010). It is not uncommon for patients at-risk for an eating disorder who are not self-referred to refuse the interview process or to provide deceiving information or to omit pertinent information about their eating disorder symptoms (Anderson & Paulosky, 2010).

In the case of eating disorders, knowing whether the client has received previous counselling for eating disorders or other DSM-V disorders will inform the clinician about the selection of appropriate diagnostic questions and screening instruments (Jones, 2010). If it is suspected that a client has other psychiatric disorders the clinician may need to perform separate assessments or refer the client to a medical professional. This is because eating disorders are commonly associated with other comorbid conditions such as psychiatric disorders and personality disorders (Grilo et al., 2003).

Presenting problems. The presenting problems is a summary of what brought the client into counselling and what are his or her primary problems or concerns (Jones, 2010). Jones suggests that counsellors need to develop the ability to pay attention to patterns of maladjusted behaviour, stressors, unrecognized psychological symptoms, and interpersonal conflicts, when listening to client narratives. Depending on the client's awareness, the presenting problem can range from behavioural issues (e.g., inability to consume specific foods), psychological functioning (e.g., anxiety around body image or food consumption), psychosocial functioning (e.g., issues with relationships), behavioural concerns, or medical issues (e.g., significant loss/gain in body weight; APA, 2013; Crowther & Sherwood, 1997). It is also important to note that some clients may not be

directly coming into counselling to work on an eating disorder but instead, another comorbid condition.

Researchers suggest that counsellors should help the client describe their presenting problem in-depth in three primary areas (APA, 2006; Othmer & Othmer, 2002; Seligman, 1996). The first area is the onset and length of the problems, which includes information about when the problem began, how long the problem has persisted for, if there are any noticeable problems about the problem, and what type of solutions the client has attempted to use so far to reduce the problem (Jones, 2010). The second area is the severity of the problems, which includes information about how the problem has impacted the client's relationships, professional life, friendships, and leisure pursuits (Jones, 2010). The final area is the life stressors that have caused or have been caused by the problems, including information about external events or interpersonal relationships that have caused the problem and any stressful life events that could be associated with the problem (Jones, 2010).

Medical history. The medical history consists of information about the client's medical history, family medical history, medication history, hospitalizations due to medical problems, and any psychiatric history or diagnoses (Jones, 2010). While a counsellor can partially obtain some of the medical history from client self-reports, typically, a psychiatrist, family physician, or pediatrician who is experienced in the care of patients with eating disorders is responsible for evaluating and monitoring whether the client has any immediate medical conditions that require hospitalization or stabilization (Harrington, Jimerson, Haxton, & Jimerson, 2015).

Family history. Family history includes any information about the client's family background. The American Psychological Association (2006) suggests several areas of inquiry when it comes to obtaining family history. For instance, the clinician can ask probing questions about the client's family history of suicide, violence, or mental health history; quality and upbringing of client during childhood and adolescence; any family history of substance abuse, domestic violence, or child abuse; and quality of client's relationships with family members (APA, 2006). Gathering information about family history can yield important data about the onset and length of time that the eating disorder behaviours have persisted (Crowther & Sherwood, 1997). Moreover, many mental disorders are linked with or exacerbated by the client's current or previous interactions with family members (Jones, 2010). A final concern is that family-related life stressors (current and previous) that have caused potentially caused the client to use food control as a coping mechanism.

Relationship history. Relationship history emphasizes information about the client's current and previous marital and/or non-marital relationships, the client's number of children (if relevant), and the client's interpersonal connection with work colleagues, friends, and any other significant individuals. After the clinician has gathering preliminary facts about the client's relationship history, he or she can ask questions to evaluate the client's perceptions about his or her ability to develop and sustain intimate relationships. Symptom severity for a mental disorder may coincide when a client chooses to isolate themselves or struggles to make friends or maintain relationships (Jones, 2010). Gathering information about relationship history can also help the clinician

determine if the client has previously or is currently accessing external resources and supports.

Education history. Educational history focuses on gathering information about the client's previous and current (if relevant) educational level and academic performance and the client's ability to handle life stressors during academia (Jones, 2010). Problems in academic achievement have been associated with the mental disorders in adulthood (McConaughty, 2000) and poor academic performance/academic interruptions have been linked to early onset of mental illness (Kessler et al., 2005).

Work history. Work history consists of any information about the client's current employment situation and if relevant, job losses, leaves of absences, and occupational injuries (Jones, 2010). If a client is struggling from a mental disorder he or she is more likely to be unemployed and/or struggle to maintain a consistent job than those without such disorders (Cook, 2006). Often individuals suffering from orthorexia will experience impairments in work and academic functioning because of their beliefs or behaviours about healthy food consumption (Dunn & Bratman, 2015)

Eating disorder-specific history. The eating-disorder specific history section includes obtaining information pertaining to eating disorder symptomatology (EDS) that is common for individuals at-risk for or who meet the criteria for a feeding or eating disorder in the DSM-V (APA, 2013). Symptomatology is described as a set of symptoms characteristic of a medical condition or medical conditions exhibited by a patient (Oxford Online English Dictionary, n.d.). Eating disorder symptoms can be further defined as a set of extreme emotions, behaviours, attitudes, and thoughts that are linked to body weight and food problems (National Eating Disorder Association, 2016). The EDS

described throughout the literature review has been derived from two primary sources: a) from the feeding and eating section of the DSM-V which describes eating disorder symptoms that can help practitioners screen or diagnosis for an eating disorder and b) from the literature on the characteristics typically displayed by individuals are at-risk for orthorexia.

Other terms such as body weight concerns and body image dissatisfaction are commonly linked with eating disorder symptomatology, while abnormal eating habits and weight control methods are two behaviours often used by individuals with an eating disorder to control body weight and body image (APA, 2013). These themes are the most widely used terms when performing an interview assessment for an eating disorder (Stewart & Williamson, 2007). The section below provides practitioners with useful probing questions and topics that should be discussed with clients in order to obtain a full picture of the client's EDS. Gathering accurate information about body weight, body image dissatisfaction, pathological dieting behaviours, and pathological weight control methods are a key component of differentiating whether the client should be categorized as at-risk for orthorexia or if their symptoms fit better under a different feeding or eating disorder in the DSM-V.

Body weight. The influence of body image and weight play a major role in the psychopathology of eating disorders. To evaluate body weight, the clinician can obtain a history of the client's body weight and height through an evaluation of current weight, any significant weight fluctuations, and the client's highest and lowest in the last 6 months (Stewart & Williamson, 2007). Comparing the client's body weight with normal population-based standards is one way to determine the severity of the client's eating

disorder. Using the information above, the clinician can ask probing questions about whether there are any life stressors (e.g., family, life events, interpersonal relationships) that have been related to weight fluctuations (Crowther & Sherwood, 1997).

The clinician should also assess the meaning associated with attaining or maintaining the ideal body weight along with the influence that weight gain or loss has on the client's thoughts and feeling about himself/herself. One distinguishing characteristic of individuals at-risk for orthorexia is that body weight gain and loss is a secondary concern to obtaining physical "purity" and holistic wellness. For example, Bratman and Knight (2000) describe how in raw-foods theory (i.e., consuming only foods in their raw form) the individual strives to obtain "a sensation of lightness, the physical feeling of not being weighed down to the earth" (p. 113).

An evaluation of the client's experiences of weight and body image during childhood and adolescence should also be conducted (Crowther & Sherwood, 1997; Stewart & Williamson, 2007). These probing questions may focus on the client's perceptive and affective experiences of weight as a child. Receiving negative feedback or being teased by family members, teachers, or peers about body weight or physical appearance is one of the primary reasons individuals experience body image dissatisfaction (Crowther & Sherwood, 1997).

Body image dissatisfaction. Body image dissatisfaction is defined as a negative attitude and/or perception towards one's own body (i.e., thoughts, perception, and feelings about one's actual physical appearance; Cash, 1990) as a result of a discrepancy between the individual's actual body image (i.e., thoughts, perception, and feelings about one's actual physical appearance; Cash, 1990) and their idealized body image (i.e., the

way they perceive their body should physically or affectively appear; Williamson, Gleaves, Watkins, Schlundt, 1993). To detect for the presence and severity of these manifestations of body image disturbances, the counsellor should ask questions concerning the client's ideal physical appearance and the amount of satisfaction the client has around their current appearance (Crowther & Sherwood, 1997).

Getting the client to describe their reason for engaging in dietary restriction along with the impact it has on their body image can be a helpful way to distinguish orthorexia from other eating disorders. Body image dissatisfaction is common among eating disorder patients and is one of the core determinants of bulimia or anorexia (APA, 2013). In contrast, an individual suffering from orthorexia focuses more on the morale, spiritual, and holistic impact that healthy food has on their body versus the caloric or weight loss benefits achieved from dietary restriction (Segura-Garcia et al., 2015). When these dietary practices are compromised, an individual with orthorexia may experience guilt and self-loathing, leading to stricter dieting or weight control methods for self-punishment (Mathieu, 2005). According to the proposed diagnostic criteria for orthorexia (Dunn & Bratman, 2015), individuals suffering from orthorexia associate positive body image, self-worth, and identity with their ability to comply with idiosyncratic beliefs about healthy eating.

Pathological dieting behaviours. It is common for women with disordered eating habits to have an extensive history of dieting (Polivy & Herman, 1985). Dieting is characterized as “volitional and sustained restriction of caloric intake for the purposes of weight loss or weight maintenance” (Stice & Presnell, 2010, p. 149). One challenge clinicians face when assessing for orthorexia is determining the difference between

normal healthy dieting behaviours, and abnormal pathological dieting behaviours. One technique that can be used to distinguish between healthy dieting and pathological dieting is evaluating the client's history of dieting.

Individuals at-risk for an eating disorder take dieting to the extreme by adhering to highly selective diets and often only consume foods deemed to be “safe” or “good” (Crowther & Sherwood, 1997; Stewart & Williamson, 2007). These individuals may also have a list “forbidden” or “bad” foods (Crowther & Sherwood, 1997; Stewart & Williamson, 2007). Bratman & Knight, 2000). These types of foods might include baked goods, salty snacks, candy, and other high-carbohydrate foods; however, forbidden foods are often idiosyncratic to the individual (Jones, 2010). Therefore, the clinician will need to gather a full picture of the client's dietary history by gathering information about the client's specific initial onset, frequency, and preferred methods of dieting along with food and caloric consumption habits, restricted and allowed foods, and typical meals (Jones, 2010).

A final consideration when it comes to pathological dieting behaviours is performing an assessment of any abnormal food preparation behaviours. Individuals with orthorexia spend an excessive amount of time (more than 3 hours per day) thinking about or preparing healthy foods, researching and cataloging meals, and weighing and measuring future planned meals (Bratman & Knight, 2000).

Pathological weight control behaviours. Pathological weight control behaviour can be defined as the use of unhealthy methods to gradually or rapidly maintain or lose weight (Werner et al., 2013). Gradual weight control methods include methods of reducing or gaining weight in meticulous ways such as restrictive dieting, exercising, or

purging, over a lengthy period of time (Werner et al., 2013). Rapid weight control methods involve quick changes of body weight through compensatory behaviours over a relatively short period of time (Werner et al., 2013). Compensatory behaviours are viewed as behaviours used to “un-do” the guilt or anxiety associated with consuming foods outside an individual’s dietary regimen (Eating Disorders Glossary, 2017).

The clinician should ask questions about both gradual and rapid weight control techniques and determine whether the client is using these to manage their emotions, body weight, or body size (APA, 2013). Some clients may also engage in these weight control methods to meet a personal morale agenda about eating healthy. Some areas of exploration may include asking the patient about self-induced vomiting, laxatives, diuretics, enemas, appetite suppressants, medications used for fat loss, fasting, or excessive exercising (Crowther & Sherwood, 1997; Stewart & Williamson, 2007). When screening for orthorexia the clinician may need to pay special attention to any compensatory behaviours that the client uses to “cleanse” the body of toxins. Taken to the extreme, using enemas, detox cocktails and shakes, fasting, and other bodily-detoxifying methods for holistic or purifying purposes can lead to malnutrition and medical complications (Bratman & Knight, 2000).

Chapter 6: Research Methodology

Overview

Four literature reviews were conducted to obtain the information needed to create the assessment guide. These reviews were on orthorexia nervosa; the assessment process for eating disorders; instruments for eating disorder evaluation and data gathering; and creating the semistructured clinical interview for orthorexia. The information gathered from the reviews was then synthesized to create the assessment guide, which includes three stages.

Information from these literature reviews came primarily from textbooks and research articles from the University of Lethbridge library pertaining to eating disorder assessment and evaluation. The literature was also gathered from the PsycINFO, Academic Search Complete, Medline, Ovid, and EBSCOHost databases. The terms researched included orthorexia nervosa; anorexia nervosa; bulimia nervosa; eating disorders; weight disorders; weight control methods/techniques; body image; body weight; body shape; DSM-V; feeding disorders; assessment/screening of eating disorders; self-report assessment/screening for eating disorders; structured, semistructured, and unstructured interviews for eating disorders; and comorbidities of eating disorders.

Creating the Assessment Guide for Orthorexia

The assessment guide for orthorexia is an evaluation of the thoughts, beliefs, behaviours, and attitudes characteristic of an individual at-risk for orthorexia. The guide has been divided into three stages, where each stage is contingent on whether the client meets the criteria for that particular stage of the assessment. The mental health

professional conducting the assessment is responsible for determining at each stage of the assessment whether the client meets or does not meet the criteria for continuing the assessment. If the client does not meet the criteria, no further testing is required and the assessor can debrief any information that has been found from the assessment.

Stage one. The first stage of the assessment guide requires the assessor to conduct an intake interview. The purpose of using an intake interview in stage one is twofold. First, it serves as a quick and cost-effective method to obtain a snapshot of the nature and scope of the client's presenting problems. Second, it serves as a screening tool to assess if further assessment needs to be conducted to determine if a client is potentially at risk for orthorexia or an alternative eating disorder.

The format for the intake interview is based on the interview template suggested by Watson and Flamez (2015, p. 131-138). The later sections of the intake interview focus on screening for eating disorders through the use of open-ended questions and The Eating Disorder Screen for Primary Care (ESP; Cotton, Bell & Robinson, 2003). The ESP was chosen because it is designed to help medical professionals decide if further testing should be conducted when there is a suspected risk of an eating disorder. If the client meets the criteria for the ESP, the assessor moves towards completing stage two of the assessment guide with the client.

Stage two. The second stage requires the assessor to administer and score three self-report assessment instruments. The EAT-26, the EHQ, and the ORO-15 have been added to the assessment guide as preliminary screeners in determining whether or not the client is at-risk for orthorexia. These three instruments have been the most widely used instruments in establishing the prevalence rate of orthorexia (Dunn et al., 2016) and

whether there is some concern about healthy eating that has begun to lead to medical complications and impairments in everyday functioning.

The individual cutoffs for establishing “at-risk of an eating disorder” is a score of <20 on the EAT-26. The cutoff for “at-risk for orthorexia” is a score of <35 on the ORTO-15. The EHQ has yet to distinguish a threshold for clinical significance for orthorexia. The authors suggest that higher scores are indicative of higher risk of orthorexia. Overall, the ORTO-15 and EHQ are not recommended tools when attempting to distinguish between healthy eating and pathologically healthful eating (Dunn et al., 2016; Gleaves et al., 2013).

The assessment guide used similar cutoffs to the above when determining if the final and most rigorous stage of assessment should be conducted with the client. The criteria for the second stage requires the client to a) score higher than the cutoff of <20 on the EAT-26; and either b) score below the cutoff of <35 on the ORTO-35 or c) obtain a score of 3 or 4 on seven or more of the items on the EHQ or did the client have a score of 3 or 4 on one of the following items: 8, 13, and 18.

The purpose of the final stage is to evaluate and distinguish the degree in which the client is at-risk for orthorexia. Moreover, the interview protocol that is part of the final stage allows assessors to formulate a case conceptualization about the client which allows for recommendations that are specific to being at-risk for orthorexia or for an alternative eating disorder.

Stage three. The final stage entails administering the semistructured interview for orthorexia. During the semistructured interview the assessor follows an interview

protocol and uses additional open-ended and probing questions to evaluate the severity and frequency of the client's eating disorder-related, and orthorexia-related characteristics. After the interview has been completed the assessor writes a formal assessment report and debriefs the results and recommendations of the report to the client.

The semistructured clinical interview. There are currently no formal or informal interview guidelines or interview questions designed for the assessment of orthorexia. Consequently, a semistructured interview template was created using the themes and questions from semistructured (Fairburn et al., 2014) and unstructured interview formats for eating disorders (Crowther and Sherwood, 1997; Jones, 2010; Stewart and Williamson, 2007). Specific questions were designed using a similar style to the Eating Disorder Examination (Fairburn et al., 2014).

The interview consists of five subcategories that were derived from items outlined in the proposed diagnostic criteria (Dunn & Bratman, 2015). The proposed criteria consist of two criterions (A and B) with three items per criterion. Criterion A consists of items that reflect exaggerated behaviours, thoughts, attitudes, and beliefs exhibited by the client that focuses on healthy eating. These items specifically highlight the detrimental symptoms that ensue because of engaging in obsessive healthy eating (Dunn & Bratman, 2015). Assessors will evaluate these items through three subcategories from the assessment guide: recent eating behaviours, dietary rules and restrictions, and dietary beliefs.

Criterion B includes items that reflect the physical and mental impairments that have ensued because of compulsive behaviour or mental preoccupation about healthy

eating (Dunn & Bratman, 2015). These items focus on the physical symptoms experienced by the client in addition to the way their healthy eating has impacted their overall interpersonal functioning and views about their own body weight or shape (Dunn & Bratman, 2015). Assessor's will evaluate these items through three subcategories from the assessment guide: physical health, interpersonal functioning, and body image and shape.

Reporting the results. The final step in the assessment process is reporting the results of the assessment to the client and to any third-party members involved in the case. Typically, this can be done informally (through conversation) or formally through an assessment report. The assessment guide uses both methods and requires assessors to report the results of the full assessment through an assessment report. The assessor schedules a date and time to meet with the client and any third-party members to review and make recommendations about the assessment. The model used for the assessment guide is a hypothesis-testing model, where the assessor uses his or her initial hypothesis or conceptualizations about the client's problem and arrange the data in a way that either supports or refutes a diagnosis of being at-risk for orthorexia (Watson & Flamez, 2010).

The assessment report. In the assessment report the assessor debriefs the client about the findings and conclusions of the assessment along with any further treatment or assessment recommendations. There are six major categories that will be addressed in the assessment report: background information, assessment procedures, behavioural observations, assessment results, case interpretations and summary, and case recommendations. The template for these was derived from the psychological assessment report template outlined by Watson and Flamez (2010, p. 151-153).

Risk levels for orthorexia. The three levels of risk for orthorexia (low, moderate, and high risk) is based on two factors. The first is the number of diagnostic items met by the client; the second is the number of overall orthorexic/eating disorder symptoms exhibited by the client. Immediate referral to a hospital or a medical professional is recommended if the client mentions any immediate medical complications. The assessor should refer the client for a medical evaluation prior to beginning stage two of the assessment guide.

Clinical recommendations. The goal of the assessment guide for orthorexia is to gather information about the client so that the assessor can a) determine the client's level of risk for orthorexia and b) make recommendations based on the level of risk. Overall, it is recommended that assessors use clinical judgement to tailor recommendations that are specific to the client's specific problems and needs.

The majority of the recommendations made in the assessment guide are based on recommendations made for eating disorders because there are currently no studies that have examined treatment effectiveness for orthorexia. One article by Koven (2015) provided some insight into potential treatment recommendations given the unique beliefs and concerns exhibited by individuals at-risk for orthorexia. However, none of these recommendations have been empirically tested. Other recommendations are based on eating disorder treatments suggested by Hay and Claudino (2010) and Grilo and Mitchell (2010). Psychoeducation about orthorexia and should be provided to clients regardless of their risk level.

The recommendations in the assessment guide correspond with the risk levels for orthorexia. Receiving a low risk level for orthorexia is more likely if the client did not

meet the criteria for stages one or two of the assessment guide. This recommendation is suggested to clients who may receive greater benefits from a less intrusive or specific treatment regimen. The types of recommendations made at this level consist of basic psychotherapy, psychoeducation, and referral to alternative therapies from a nutritionist, dietician, or naturopathic physician. It is up to the assessor to use clinical judgement to determine if eating disorder specific referral or treatment is recommended since these programs often have long waiting lists and may be costly.

Clients who receive a moderate risk level for orthorexia are likely at-risk or suffering from an eating disorder and potentially at-risk for orthorexia. A client will be able to obtain more resources and support if he or she is able to get diagnosed under an eating disorder already in the DSM-V (2013). The recommendations at this risk level focus on eating disorder specific treatment and referral whether it is psychoeducation, group counselling, or in/outpatient eating disorder treatment programs.

Receiving a high-risk level for orthorexia requires the client to meet almost all the diagnostic items for orthorexia. If he or she receives this rating then it is likely he or she may benefit from psychotherapeutic techniques designed specifically for orthorexia. While the diagnostic items in the guide have not been empirically validated, Koven (2015) mentions the possibility of treating certain symptoms characteristic of orthorexia. For example, antipsychotics may be a helpful tool in changing a patient's views about magical food-related thinking while different behavior modification strategies could be helpful in challenging the obsessive and compulsive aspects of orthorexia (Koven, 2015). A higher risk level for orthorexia may also mean that the patient would benefit from psychoeducation about health anxiety and the dangers that accompany consuming only

pure and healthy foods. It is recommended at all levels of risk that a medical professional be involved in monitoring and evaluating the client's physical health.

Limitations and Future Directions

The assessment guide for orthorexia solves an important gap in the literature when it comes to the assessment of orthorexia. As mentioned by leading experts in the field of orthorexia (Missback, Dunn, Konig, 2016), there is a need for new assessment methods on a population level to assess for orthorexia. The information that is available on orthorexia is limited to research and case studies which provide little direction for clinicians directly working with patients who are potentially at-risk or suffering from orthorexia.

The assessment guide for orthorexia may be accepted as a preliminary tool in the field of assessment for orthorexia, however, it is not free of limitations. Of concern is the lack of validity and reliability that can be attributed to parts of the assessment guide. The self-report questionnaires can detect problematic preoccupations with healthy eating but have yet to be tweaked in ways where they are able to identify a threshold where the client's healthy eating has led to physical, mental, and emotional deterioration.

The interview and the assessment report included in stage three of the assessment guide was designed to address the limitation stated above. The assessment guide should never be used for diagnosis. The interview has not been empirically tested for reliability and validity and was designed to be used solely as a preliminary tool to help assessors determine whether their patients were at risk level of orthorexia or an alternative eating disorder. It should be noted that the emphasis on clinical judgement and the choice to use a semistructured interview format in stage three has inherent limitations. For instance, the

assessment guide should only be used by trained mental health clinicians with strong working knowledge of eating disorders and who have used the DSM-V previously. It is also advised that practitioners using the assessment guided should have experience and knowledge with working from the feeding and eating disorders section of the DSM-V.

The assessment guide is the first of its kind to be developed exclusively for the assessment of orthorexia and can be used by clinicians and researchers to assess for the risk of orthorexia. Future research could potentially benefit from clinicians and researchers who use and report on how the assessment guide was of benefit to them when working with patients with orthorexia. In addition, research efforts need to continue to confirm the reliability and validity of instruments designed to measure for orthorexia. These include the formalization of self-report questionnaires, interview formats, and a diagnostic criterion specifically designed for orthorexia. Patient's suffering from orthorexia will continue to struggle to obtain the necessary treatment, resources, referral recommendations, and treatment they need until these instruments have been developed and formalized.

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Appendix

AN ASSESSMENT GUIDE FOR A NEWLY PROPOSED EATING DISORDER: ORTHOREXIA NERVOSA

A Project
Submitted to the School of Graduate Studies
of the University of Lethbridge
in Partial Fulfillment of the
Requirements for the Degree

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OVERVIEW OF THE ASSESSMENT GUIDE FOR ORTHOREXIA

PURPOSE

The assessment guide for orthorexia is intended to be used by psychologists, social workers, psychiatrists, and other mental health practitioners with the purpose of assessing whether a client is displaying behavioural, psychological, or emotional characteristics that would put him or her at-risk for developing orthorexia nervosa. These guidelines are based on the most recent scientific literature highlighting the symptoms that are characteristic of individuals at-risk for orthorexia.

The assessment guide is not intended to diagnose orthorexia nervosa or to replace medical diagnosis or consultation. Instead, the goal of the guideline is to gather detailed information about the client so that assessors using this guide can determine whether or not the client requires further evaluation, referral, and/or treatment based on their presenting problems.

ASSESSOR QUALIFICATIONS

Assessor's using the assessment guide for orthorexia should have a master's degree or higher in a field related to counselling, mental health, naturopathic medicine, and/or a M.D (medical doctor). Because the assessment guide relies heavily on clinical judgement, it is also recommended that the assessor have extensive training or experience working with clients with weight or eating-related disorders. Clinical experience with the DSM-V is also an asset when working with the assessment guide. Stage two of the assessment guide will require the assessor to refer the client to a medical professional to conduct a laboratory test and/or medical evaluation for an eating disorder.

BREAKDOWN OF THE ASSESSMENT GUIDE

There are three major sections included in the assessment guideline. The first section consists of an intake interview, which is designed to gather general information about the client and screen if the client is at-risk for an eating disorder. The second section consists of three self-report questionnaires that further assess if the client is at-risk for an eating disorder, in addition to orthorexia. The third section outlines the semistructured clinical interview designed to identify the severity and frequency in which the client is displaying typical behaviours, emotions, thoughts, and attitudes displayed by individuals at-risk for eating disorders and orthorexia. The third section also requires the assessor to create an assessment report that is to be reviewed with the client and any third-party members. Each stage includes information about administering, scoring, and interpreting the various tests used throughout the assessment process.

The final portion of the assessment guide includes a psychoeducation sheet and the proposed diagnostic criteria for orthorexia, which can be distributed to clients. The assessor may also provide the client with a page that outlines the similarities and differences between orthorexia and similar mental disorders such as anorexia and obsessive-compulsive disorder.

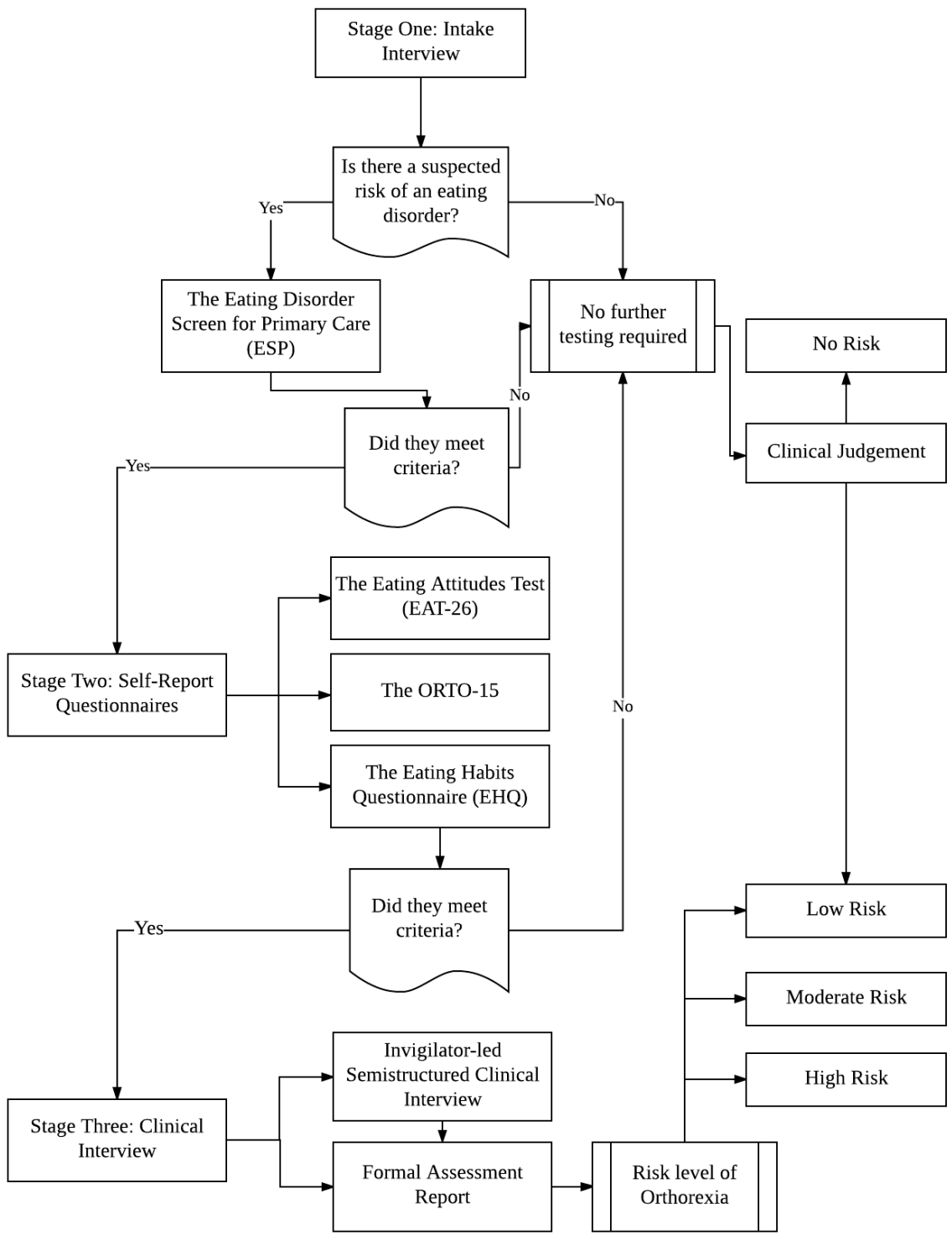
TIME REQUIREMENTS FOR THE ASSESSMENT GUIDE

The complete assessment guide is designed to be completed in four sessions. A minimum of an hour and a half should be scheduled for the first and third session, whereas a minimum of sixty minutes should be scheduled for the second and fourth sessions. The assessment guide can be completed in three sessions if the self-report questionnaires are sent home with the client after session two. Debriefing should occur at the end of each session. During the debriefing, the assessor identifies to the client whether or not further assessment should be completed.

OUTLINE OF ASSESSMENT GUIDE

Stage	Session	Time	Component
1	1	30 to 50 min (indirect)	Preparation for the intake interview Reading recommended readings
		40 to 50 min	Conducting the <i>Intake Interview</i>
		5 to 10 min	Conducting the <i>Eating Disorder Screen for Primary Care</i>
		10 to 15 min	Debriefing the results
		Total: 1.25 - 1.5 hour	
2	2	20 to 30 min	Conducting the self-report questionnaires: <i>The Eating Attitudes Test (EAT-26)</i> <i>The Eating Habits Questionnaire (EHQ)</i> <i>The ORTO-15</i>
		15 min	Scoring and interpreting the self-report questionnaires
		5 to 10 min	Debriefing the results
		Total: 45 - 60 min	
3		15 to 20 min (indirect)	Preparing for the <i>Semistructured Clinical Interview for Orthorexia</i>
	3	60 to 90 min	Conducting the <i>Semistructured Clinical Interview for Orthorexia</i>
		60 to 90 min (indirect)	Writing the <i>Formal Assessment Report</i>
	4	40 to 50 min	Debriefing the assessment report

DECISION TREE FOR THE ASSESSMENT GUIDE



RECOMMENDED READINGS

It is recommended that you complete these readings prior to administering the assessment guide. The reference sections of these readings also provide a wealth of articles discussing the assessment and treatment of eating disorders as well as orthorexia.

American Psychiatric Association. (2006). *American Psychiatric Association practice guidelines for the treatment of psychiatric disorders: Compendium*. Arlington, VA: American Psychiatric Press.

American Psychiatric Association. (2013). Feeding and Eating Disorders. In *Diagnostic and statistical manual of mental disorders* (5th ed., pp. 329-354). Washington, DC: Author.

Anderson, D.A., & Paulosky, C.A. (2004). A survey of the use of assessment instruments by eating disorder professionals in clinical practice. *Eating and Weight Disorders*, 9, 238-241.

Anderson, D.A., & Murray, A.D. (2010). Psychological assessment of the eating disorders. In W.S. Agras, *The Oxford handbook of eating disorders* (pp. 249-258). Oxford: Oxford University Press.

Crowther H. J., & Sherwood, N.E. (1997). Assessment. In D.M., Garner & P.E., Garfinkel (Eds.), *Handbook of treatment for eating disorders* (2nd ed., pp. 34-49). New York, NY: Guilford Press.

Dunn, T. M., & Bratman, S. (2015). On orthorexia nervosa: A review of the literature and proposed diagnostic criteria. *Eating Behaviors*, 21, 11–17.

Dunn, T. M., Gibbs, J., Whitney, N., & Starosta, A. (2016). Prevalence of orthorexia nervosa is less than 1 %: data from a US sample. *Eating and Weight Disorders: EWD*. <https://doi.org/10.1007/s40519-016-0258-8>.

Gleaves, D. H., Graham, E. C., & Ambwani, S. (2013). Measuring “orthorexia”: Development of the eating habits questionnaire. *TIJEPA*, 12(2), 1–18.

Koven, N. S., & Abry, A. W. (2015). The clinical basis of orthorexia nervosa: Emerging perspectives. *Neuropsychiatric Disease and Treatment*, 11, 385–394.

Stewart, T.M., & Williamson, D.A. (2007). In M. Hersen & J.C. Thomas, *Handbook of Clinical Interviewing with Adults* (pp. 266-281). Los Angeles: Sage Publications.

STAGE ONE: THE INTAKE INTERVIEW

The first stage in the assessment process is to screen and evaluate the client and identify the reasons he or she is being assessed. The intake interview is an assessment technique that provides counsellors with information about the client's past mental and physical health history and how it relates to their current circumstances and presenting problems.

Directions for Stage 1: Use the intake interview template below along with open-ended questions to complete the intake interview. Use clinical judgement and the responses from the client to determine if there is any suspicion of an eating disorder. If there is a suspicion of an eating disorder administer the *The Eating Disorder Screen for Primary Care (ESP)* during session one.

If the client meets the criteria for the ESP recommend to the client 1) he or she should go to their medical professional to complete a medical evaluation or laboratory test for eating disorder evaluation, and 2) a second appointment should be scheduled so that further evaluation can be completed (Stage 2 of the assessment guide).

Sample of open-ended questions for the intake interview

- Can you be more descriptive with your problem by describing how long has the problem persisted for? Has the problem been more or less severe recently?
- Has the problem affected your professional life, friendships, family relations, or any other type of relationships?
- Have any life stressors occurred recently that may have led to the problem or caused the problem to become more severe?
- Can you expand on some of the primary concerns or problems that you included on your intake form?

THE INTAKE INTERVIEW

Client Information

Birthdate	Month: _____	Day: _____	Year: _____
Height	Feet: _____	Inches: _____	
Gender	Male	Female	
Ethnicity: _____			
Current Weight: _____		Highest Weight: _____	
Lowest Adult Weight: _____		Ideal Weight: _____	

Intake Information

Referral Information	Referred by: _____		
Other Information	Marital Status: _____	Current Occupation (if any): _____	
Gender	Male	Female	Other: _____

Reasons for Counselling

<p>Briefly describe your presenting concerns/problems:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Describe how long the problems/symptoms have persisted for and if they are getting worse:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Describe any coping techniques or strategies used:</p> <p>_____</p> <p>_____</p>
--

Referral Reasons

Have you ever attending counselling before? If no, leave blank; if yes, please fill in the section below.

Reasons for attending counselling previously:

Other relevant information to attending counselling (i.e., type of counselling, length of time, individuals involved):

Other Relevant History

In this section questions are asked to obtain a background of the client's history.

Birth and developmental history (any noteworthy complications or missed developmental milestones):

Family history (any noteworthy presenting problems related to family history):

Medical history (past and current medical conditions, treatments, or medications; any diagnosis or mental health history):

Educational/vocational history (noteworthy absences, issues at work):

SCREENING FOR AN EATING DISORDER

If the client mentions an eating-related problem in their intake interview (or if there is a suspicion) then it is recommended that specific screening for eating disorders be conducted. Screening questions can help you identify and select the most-appropriate assessment instruments to measure the constructs that are related to the client's presenting problems. Asking specific close-ended screening questions can help you identify if there is the potential presence of an eating disorder and if a more detailed assessment is warranted.

The Eating Disorder Screen for Primary Care (ESP) is a brief screening tool that has been used previously with primary care patients and university students to determine whether a more comprehensive assessment of an eating disorder is required. The five questions are as followed (mark an [X] on all that apply):

- > Are you satisfied with your eating patterns? (A "no" to this question is classified as an abnormal response). []
- > Do you ever eat in secret? (A "yes" to this and all other questions is classified as an abnormal response). []
- > Does your weight affect the way you feel about yourself? []
- > Have any members of your family suffered with an eating disorder? []
- > Do you currently suffer with or have you ever suffered in the past with an eating disorder? []

If the client receives an [X] on any two of these items, it is recommended that you continue with the next step in the self-report questionnaires for orthorexia nervosa. It is also recommended at this point in the assessment that the client book an appointment with a medical professional for medical screening and a laboratory investigation for an eating disorder.

STAGE TWO: SELF-REPORT QUESTIONNAIRES FOR ORTHOREXIA NERVOSA

Directions: The second stage in the assessment guideline consists of three self-report questionnaires that should be given to the client at the same time. It is recommended you remain near the client when they fill out the questionnaires. If this is not possible, you may send home the three questionnaires with the client so they can be completed for the next appointment.

It is important to emphasize to the client that the self-report questionnaires ask a standard set of questions that may or may not apply. Let the client know that the three self-report questionnaires may take anywhere between 20 to 30 minutes. Answer any questions the client may have about specific items. Every question on the questionnaires should be completed by the client. Verify that all items on the questionnaires are complete prior to scoring and debriefing the questionnaires with the client. There are also boxes located throughout the questionnaire. Mark an X to indicate that this item applies to the client. If the item does not apply, put an / to indicate the item does not apply to the client.

= applies = does not apply

The Eating Attitudes Test (EAT-26)

The EAT-26 is a scale used to screen individuals to assess for eating-disorder risk. The scale includes three different subcategories related to Dieting, Bulimia and Food Preoccupation, and Oral Control. A score greater than 20 is an indicator of possible eating disordered behaviors and eating problems.

The ORTO-15

The ORTO-15 contains 15-items and is currently the mostly widely used measure to determine at-risk behaviours for orthorexia. It is based on the Bratman Orthorexia Test (BOT) original items and Bratman and Knight case studies. A score greater than 35 is an indicator of possible eating disordered behaviors and eating problems.

The Eating Habits Questionnaire (EHQ)

The EHQ is a 21-item self-report inventory designed to identify cases in which individuals display cognitions, feelings, and behaviours that may indicate problematic fixation on healthy eating. The EHQ includes three subcategories: knowledge of healthy eating, problems associated with healthy eating, and feeling positively about healthy eating.

THE EATING ATTITUDES TEST (EAT-26)

Starting with question one, circle which number/response of the six available that most likely applies to you. Do not leave any of the items blank.

- | | | | | | | |
|--|---------------|----------------|--------------|------------------|---------------|--------------|
| 1. Am terrified about being overweight. | Always | Usually | Often | Sometimes | Rarely | Never |
| 2. Avoid eating when I am hungry. | Always | Usually | Often | Sometimes | Rarely | Never |
| 3. Find myself preoccupied with food. | Always | Usually | Often | Sometimes | Rarely | Never |
| 4. Have gone on eating binges where I feel that I may not be able to stop. | Always | Usually | Often | Sometimes | Rarely | Never |
| 5. Cut my food into small pieces. | Always | Usually | Often | Sometimes | Rarely | Never |
| 6. Aware of the calorie content of foods that I eat. | Always | Usually | Often | Sometimes | Rarely | Never |
| 7. Particularly avoid food with a high | Always | Usually | Often | Sometimes | Rarely | Never |
| 8. Feel that others would prefer if I ate more. | Always | Usually | Often | Sometimes | Rarely | Never |
| 9. Vomit after I have eaten. | Always | Usually | Often | Sometimes | Rarely | Never |
| 10. Feel extremely guilty after eating. | Always | Usually | Often | Sometimes | Rarely | Never |
| 11. Am preoccupied with a desire to be thinner. | Always | Usually | Often | Sometimes | Rarely | Never |
| 12. Think about burning up calories when I exercise. | Always | Usually | Often | Sometimes | Rarely | Never |
| 13. Other people think I am thin. | Always | Usually | Often | Sometimes | Rarely | Never |

14. Am preoccupied with the thought of having fat on my body.
Always Usually Often Sometimes Rarely Never
15. Take longer than others to eat my meals.
Always Usually Often Sometimes Rarely Never
16. Avoid foods with sugar in them.
Always Usually Often Sometimes Rarely Never
17. Eat diet foods.
Always Usually Often Sometimes Rarely Never
18. Feel that food controls my life.
Always Usually Often Sometimes Rarely Never
19. Display self-control around food.
Always Usually Often Sometimes Rarely Never
20. Feel that others pressure me to eat.
Always Usually Often Sometimes Rarely Never
21. Give too much time and thought to food.
Always Usually Often Sometimes Rarely Never
22. Feel uncomfortable after eating sweets.
Always Usually Often Sometimes Rarely Never
23. Engage in dieting behaviour.
Always Usually Often Sometimes Rarely Never
24. Like my stomach to be empty.
Always Usually Often Sometimes Rarely Never
25. Have the impulse to vomit after meals.
Always Usually Often Sometimes Rarely Never
26. Enjoy trying new rich foods.
Always Usually Often Sometimes Rarely Never

SCORING THE EAT-26

Use the scoring grid below to score the 26-item EAT-26 assessment. The client's responses are added together to form a score out of 78. The authors suggest that patients who score higher than the cutoff of < 20 should seek further attention to determine if their scores reflect a clinical eating disorder.

ITEMS	RESPONSES					
	Always	Usually	Often	Sometimes	Rarely	Never
1 through 25	3	2	1	0	0	0
26	0	0	0	1	2	3

Did the client score higher than the cutoff of <20 on the EAT-26 []

THE ORTO-15

Starting with question one, circle which number/response of the four available that most likely applies to you. Do not leave any of the items blank.

1. When eating, do you pay attention to the calories of the food?
Always
Often
Sometimes
Never
2. When you go in a food shop do you feel confused?
Always
Often
Sometimes
Never
3. In the last 3 months, did the thought of food worry you?
Always
Often
Sometimes
Never
4. Are your eating choices conditioned by your worry about your health status?
Always
Often
Sometimes
Never
5. Is the taste of food more important than the quality when you evaluate food?
Always
Often
Sometimes
Never
6. Are you willing to spend more money to have healthier food?
Always
Often
Sometimes
Never
7. Does the thought about food worry you for more than three hours a day?
Always
Often
Sometimes
Never
8. Do you allow yourself any eating transgressions?
Always
Often
Sometimes
Never

9. Do you think your mood affects your eating behavior?
Always Often Sometimes Never
10. Do you think that the conviction to eat only healthy food increases self-esteem?
Always Often Sometimes Never
11. Do you think that eating healthy food changes your life-style
(frequency of eating out, friends, ...)?
Always Often Sometimes Never
12. Do you think that consuming healthy food may improve your appearance?
Always Often Sometimes Never
13. Do you feel guilty when transgressing?
Always Often Sometimes Never
14. Do you think that on the market there is also unhealthy food?
Always Often Sometimes Never
15. At present, are you alone when having meals?
Always Often Sometimes Never

SCORING THE ORTO-15

Use the scoring grid below to score the 15-item ORTO-15 assessment. The authors of the assessment suggest a cutoff of either < 40 or <35 to indicate a risk for developing orthorexia.

ITEMS	RESPONSES			
	Always	Often	Sometimes	Never
2-5-8-9	4	3	2	1
3-4-6-7-10-11-12-14-15	1	2	3	4
1-13	2	4	3	1

Did the client score below the cutoff of <35 on the ORTO-35? []

THE EATING HABITS QUESTIONNAIRE (EHQ)
--

Please answer the following questions by circling the response that best fits your current eating habits.

F = False, not at all true ST = Slightly true MT = Mainly true VT = Very true

- | | | | | |
|---|---|----|----|----|
| 1. I am more informed than others about healthy eating. | F | ST | MT | VT |
| 2. I turn down social offers that involve eating unhealthy food. | F | ST | MT | VT |
| 3. The way my food is prepared is important in my diet. | F | ST | MT | VT |
| 4. I follow a diet with many rules. | F | ST | MT | VT |
| 5. My eating habits are superior to others. | F | ST | MT | VT |
| 6. I am distracted by thoughts of eating healthily. | F | ST | MT | VT |
| 7. I only eat what my diet allows. | F | ST | MT | VT |
| 8. My healthy eating is a significant source of stress in my relationships. | F | ST | MT | VT |
| 9. I have made efforts to eat more healthily over time. | F | ST | MT | VT |
| 10. My diet affects the type of employment I would take. | F | ST | MT | VT |
| 11. My diet is better than other people's diets. | F | ST | MT | VT |
| 12. I feel in control when I eat healthily. | F | ST | MT | VT |
| 13. In the past year, friends or family members have told me that I'm overly concerned with eating healthily. | F | ST | MT | VT |
| 14. I have difficulty finding restaurants that serve the foods I eat | F | ST | MT | VT |
| 15. Eating the way I do gives me a sense of satisfaction. | F | ST | MT | VT |
| 16. Few foods are healthy for me to eat. | F | ST | MT | VT |
| 17. I go out less since I began eating healthily. | F | ST | MT | VT |
| 18. I spend more than three hours a day thinking about healthy food. | F | ST | MT | VT |
| 19. I feel great when I eat healthily. | F | ST | MT | VT |
| 20. I follow a health-food diet rigidly. | F | ST | MT | VT |
| 21. I prepare food in the most healthful way. | F | ST | MT | VT |

SCORING THE EHQ

Add up the client's responses on the 21-item EHQ using the scoring grid below. The client's responses are added together to form a score out of 84. The authors do not suggest any specific cut-off but instead suggest that higher scores are indicative of greater risk for orthorexia tendencies. Special attention should be given to scores of 3 or 4 on items 6, 8, 13, and 18 as these items indicate that the client's healthy eating habits have begun to impede on their day-to-day functioning.

ITEMS	RESPONSES			
	False, Not At All True	Slightly True	Mainly True	Very True
1 through 21	1	2	3	4

Did the client receive a score of 3 or 4 on seven or more of the items []

and/or

Did the client have a score of 3 or 4 on one of the following items: 8, 13, and 18 []

SUMMARY OF SELF-REPORT QUESTIONNAIRES FOR ORTHOREXIA

A. Did the client score higher than the cutoff of <20 on the EAT-26 []

B. Did the client score below the cutoff of <35 on the ORTO-35 []

C. Did the client score 3 or 4 on seven or more of the items on the EHQ or did the client have a score of 3 or 4 on one of the following items: 8, 13, or 18 []

Directions: If the client meets the criteria for A, B, and C, then it is recommended to conduct stage three: the semistructured clinical interview for orthorexia. Conducting the interview will assist in determining if the client is at-risk for orthorexia and therefore, require more specialized treatment for that particular disorder. If the client **does not** meet any of the above criteria, then the assessor should use clinical judgement along with the results from stage one and two to determine the client's risk level for orthorexia (see Decision Making Tree and Recommendations section).

STAGE THREE: THE SEMI-STRUCTURED CLINICAL INTERVIEW FOR ORTHOREXIA

Administration Procedures for the Semistructured Clinical Interview

The test administration process is a multi-stage process which extends beyond the direct time spent with the client. Assessor's should be aware of their responsibilities before, during, and after the administration of psychological and behaviours assessments. Therefore, this section will overview the administration procedures that should be followed when using the assessment guideline. The procedures and suggested steps are based on the Eating Disorders Examination, the Responsibilities of Users Standardized Tests (RUST statement), and the Canadian Standards of Practice of the Counselling and Psychotherapy Association.

Key Points for Preparing for the Administration Process

1. Prior to conducting the assessment with clients, administer the full assessment with volunteer clients.
2. Prior to conducting the assessment, accurately rehearse the administration procedures including information about the purpose of the tests, the methods of administration, and scoring and reporting all relevant tests to the assessment guide.
3. Review the test material and procedures to ensure standardized conditions before, during, and after test administration.
4. The testing environment should be consistent (if possible) and consider client comfortability (i.e., seating, lighting, room temperature, lack of distractions).
5. Review the assessment report portion of the assessment guide so you understand and are comfortable making a final decision when determining if the client is at-risk for orthorexia and if specialized treatment is recommended.

Key Points for During the Assessment Process

1. Begin by explaining to the client the purpose of conducting the assessment.
2. Establish good rapport with the client prior to administering any assessments.
3. Explain to the client that the purpose of the assessment is to work together to gather information to accurately determine if they are at-risk for developing an eating disorder and/or orthorexia.
4. Inform the client that the interview will take a minimum of 45 minutes and a maximum of an hour and a half. Going longer may lead to client/assessor fatigue which may impact the quality of the ratings.

5. Be aware of the time. When conducting the assessment, never rush the client and only move onto the next item of the interview when you feel the client has answered the question to the best of his/her abilities. Move the assessment along if the client is providing too much detail for a particular item on the interview.
6. If new information emerges during the interview it is appropriate to return to earlier items.
7. Any deviations from the administration procedures included in this section should be recorded including any test accommodations for the client's special needs.
8. Ensure all test materials are immediately secured and stored in a secure location.

Assessor Checklist

Before moving to the next step ask yourself the questions listed in the checklist below.

- Have you reviewed the recommended readings?
- Do you have a general understanding of the Feeding and Eating section of the DSM-V?
- Do you have a general understanding of the proposed diagnosis for orthorexia?
- Are you prepared to administer and score the semistructured clinical interview?
- Are you prepared to complete the final assessment report after the semistructured clinical interview?

THE SEMI-STRUCTURED CLINICAL INTERVIEW FOR ORTHOREXIA

Orientation to the Interview

Say to the client “we are going to have an interview in which we work together to discuss and obtain a general picture of your typical eating habits and your perceptions, attitudes, and feelings about your body shape and body weight. During the interview I will be asking you several general questions on several topic areas.”

Criterion for Orthorexia Nervosa

There is currently no official criterion that recognizes whether or not an individual has or is at-risk for orthorexia. Currently the only criteria is the proposed diagnostic criteria for orthorexia which is based on a critical review of case histories and narrative descriptions of orthorexia from eating disorder experts as well as hundreds of self-reported cases of orthorexia. The subcategories included in the interview are reflective of the items on the diagnostic criterion for orthorexia. There will be five subcategories: recent eating behaviours, dietary rules and restrictions, dietary beliefs, physical health, interpersonal functioning, and body image. Each subcategory includes specific questions that are used to gather information on the psychological, emotional, and physical impact of the client’s eating habits and views about their body weight and shape.

Beginning the Interview

After the client has been oriented to the interview, begin the interview by reiterating the time frame for the interview. It is best at the beginning of the interview to ask broad questions/topics and to eventually seek out more descriptive responses about specific questions. Briefly introduce each subcategory and frame the context (time-frame) for each set of questions. Items will either be “over the course of the past 27 days” or “over the course of the past 2 to 3 months”. Highlight the importance of answering questions in conjunction with their specific time frames.

Another important component is gathering information about each item and providing a severity or frequency rating for specific items using the 6-point Likert scale. During the interview make notes and determine a rating for the client based on the self-reported answers provided by the client. Finally, the client may find it beneficial to use a blank calendar of the last 4 weeks (not including the day of the assessment) to help them accurately recall the primary period of interest (the last 27 days). Any holidays over 3 days should not be included as part of the 27 days. The calendar can be used during the interview to help the client recall information over the past 27 days.

Conducting the Interview

Begin the interview starting with the recent eating behaviours subcategory. It may be helpful to explain the purpose of each subcategory (see the sections on Scoring and Interpreting) to the client and follow the directions listed under each subcategory. The items from each subcategory should be followed periodically. The assessor reads each item and records the client's response. The assessor may choose to ask additional open-ended questions for particular items. When making a severity or frequency rating for items requiring a rating (using a 6-point Likert scale), use closed or open-ended questions to determine the best rating possible for that particular item. No items should be left without a response. Ensure the client understands the items on the interview as well as the information being asked of the client. It is good practice to clarify with the client after each item on the interview.

INTERVIEW CALENDAR

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

STAGE THREE: SCORING THE SEMISTRUCTURED CLINICAL INTERVIEW

Descriptive Experience

Some items during the interview require you to record the client's response to an open-ended question. Use clinical judgement to record relevant information to each open-ended question and ask any additional questions that may be helpful in gathering other important information. The description section is also a good place to provide any specific context for the frequency and severity ratings.

Frequency Rating

A frequency rating is used in the interview, so you can rate the number of days that a particular feature has occurred for a client. Rate the number of occurrences the feature has occurred for the client over the course of the past 27 days. Higher ratings indicate a higher number of days that the feature was present. Attempt to be precise, using open and close ended questions, and the calendar, to help guide the client.

Rating Scale

- 0 - Absence of the feature (Never)
- 1 - Feature present on few of the days (1 to 6 days)
- 2 - Feature present on less than half the days (7 to 13 days)
- 3 - Feature present on more more than half the days (14 to 20 days)
- 4 - Feature present on majority of the days (21 to 26 days)
- 5 - Feature present on all of the days (27 days)

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

Circle the rating on the 6-point Likert scale that best applies to the client's response.

Severity Rating

A severity rating is used so that you can rate the severity or intensity of a particular feature. Higher ratings indicate a higher severity of the feature over the course of the last 27 days. When determining the severity of a client's feature, use clinical judgement along with specific assessment skills and training to distinguish which severity rating best suits the client's feature. Use personal experiences, case formulation, and relevant research and theory to determine the severity that best suits the client. Attempt to be precise, using open and close ended questions, and the calendar, to help guide the client.

Severity Scale

- 0 - Absence of the feature (Never)
- 1 - Feature is present rarely
- 2 - Feature is present sometimes
- 3 - Feature is present often
- 4 - Feature is present majority of time
- 5 - Severity of feature present to extreme degree (Always)

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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Circle the rating on the 6-point Likert scale that best applies to the client's response.

INTERPRETING THE RESULTS FROM THE SUBCATEGORIES

Interpret the results using clinical judgement along with the guidelines provided after each subcategory.

- > The *important information* block serves to a) highlight general information that may be beneficial when investigating if the client is at-risk for orthorexia and b) indicate client scores that should be examined further with open-ended questions.
- > The *at-risk for orthorexia* block distinguishes specific information on the behaviours, beliefs, and perceptions that are typically displayed by individuals suffering from or at-risk for orthorexia.
- > The *exhibited by client* block is designed to be used as a space to mark an [X] if it is determined that the client's responses match the information in the at-risk for orthorexia block. If the statement does not apply (i.e., the client does not meet the criteria), mark an [/]. Extra room is provided to leave any additional comments.

Item	Important Information	At-risk for orthorexia	Exhibited by client
X			[]
Other			

RECENT EATING BEHAVIOURS SUBCATEGORY

Directions: Read the following questions to the client and describe their responses to each question. Where applicable, check-off items that apply to the client. Circle the rating that best applies to the client using the 6-point Likert scale. For each item, ask the client “over the course of the past 27 days...”

1. What are your typical day to day eating behaviours?

2. What meals or snacks do you consume regularly? (check all that apply)

- Breakfast
- After Breakfast Snack
- Lunch
- After Lunch Snack
- Dinner
- After Dinner Snack
- Dessert

3. Have you noticed anything unusual about your eating habits? Have any family members, friends, or colleagues noticed any unusual eating habits?

4. Are there certain days or weekends when your eating behaviours have changed?

A. How about “over the course of the past 2 to 3 months”?

5. How often do you skip meals? (Meals include breakfast, lunch, and dinner)

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

[If the client receives a score of 1 or higher]

A. What is the intent or reason you have been skipping meals?

Additional Notes

INTERPRETING THE RECENT EATING BEHAVIOURS SUBCATEGORY

Items from the recent eating behaviours subcategory aim to gather general information about the client's eating habits over the course of the past 27 days. Information from this subcategory can be used to obtain information about the typical and atypical eating behaviours exhibiting by the client.

Item	Important Information	At-risk for Orthorexia	Exhibited by Client
5	Intent or reason for skipping meals or eating food at only specific times in the day.	Unusual eating habits that may include skipping meals, entire food groups, and consuming or eliminating food at specific times of the day.	[]
Other		Any specific days, time periods, or events where the client engages in unusual eating habits (compared to typical eating behaviours).	[]

DIETARY RULES AND RESTRICTIONS SUBCATEGORY

Directions: Read the following questions to the client and describe their responses to each question. Where applicable, check-off items that apply to the client. Circle the rating that best applies to the client using the 6-point Likert scale. For each item, ask the client “over the course of the past 27 days...”

1. Are any of the rules you follow self-imposed (you decided on them for yourself) or are they a result of a prescription/recommendation from a health professional? (e.g., dietician, physician, nutritionist, or naturopathic physician)

[If the client received a prescription/recommendation from a health professional]

- A. Have you extended or exceeded the rules outlined by the health professional?

2. Do you have any dietary rules about any of the following statements? (check all that apply; describe the client’s experience; if items do not apply give a score of 0)

- A. Calorie limits (e.g., cut back or restrict the amount of calories consumed)

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

- B. Foods that “should” be consumed (e.g., specific foods or groups of food you tell yourself to consume)

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

- C. The quality of food consumed (e.g., source of food, “healthiness”, food preparation)

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

3. Do you follow concrete dietary guidelines (strict, unchanging rules; e.g., eating no carbohydrates at all) or flexible dietary guidelines (relaxed, changing rules e.g., sometimes eating less carbohydrates)?

A. How often do you follow concrete dietary guidelines?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

Additional Notes

INTERPRETING THE DIETARY RULES AND RESTRICTIONS SUBCATEGORY

Items from the dietary rules and restrictions subcategory focus on gathering information about the client's self-imposed dietary rules and restrictions about food consumption or preparation. The focus of this subcategory is to gather information about the dietary rules and restrictions exhibited by the client in accordance with how the client practices these rules.

Item	Important Information	At-risk for Orthorexia	Exhibited by Client
1, 3	Self-imposed rules or dietary rules not prescribed by a health professional.	Unusual eating habits that may include skipping: meals, entire food groups, and consuming/eliminating food at specific times of the day.	[]
2	The frequency of ratings with a 3 or higher on all items included in question 2.	Rigid self-imposed rules about limiting calories and consuming foods of superior quality (food prepared, packaged, or production). May have a specific list of foods that are "should" foods or "should-not" foods.	[]
Other		Lack of understanding around the consequences of dietary rules and restrictions. Any extreme desire to engage in affirmative and restrictive dietary practices aimed at optimizing health.	[]

DIETARY RULES AND RESTRICTIONS SUBCATEGORY

Directions: Read the following questions to the client and describe their responses to each question. Where applicable, check-off items that apply to the client. Circle the rating that best applies to the client using the 6-point Likert scale. For each question, ask the client “over the course of the past 27 days...”

1. Do you consciously (i.e., you are fully aware) follow dietary rules to give yourself a greater sense of control or stability in your life? What is the effect of following these rules on your self-esteem, self-worth, and personal satisfaction?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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2. On average what percentage of your day do you spend in-between meals thinking about consuming, preparing, or buying food?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

3. What self-imposed rules do you have regarding the quality of food you consume? (rate the client based on their descriptive response to each item)

- A. Do you consciously evaluate the source of the food (e.g., organic, pesticide-free, etc.)?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- B. Do you consciously evaluate the processing of the food (e.g., way the food was prepared or cooked)?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- C. Do you consciously evaluate the packaging of the food (e.g., package or container the food is contained in)?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- D. Do you consciously evaluate the micro/macronutrients of the food (e.g., carbs, fats, sugar, protein)?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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4. Describe the thoughts, perceptions, or beliefs that occur for you when you violate any of your dietary behaviours or rules? (For example, violation of self-imposed dietary rules causes exaggerated fear of disease, sense of personal impurity and/or negative physical sensations, accompanied by anxiety and shame.)
-
-

To what degree does violating your self-imposed dietary rules cause (rate the client based on their descriptive response to each item):

- A. Personal distress or anxiety?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- B. Panic attacks or extreme physiological reactions?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- C. A personal sense of impurity and/or negative physical sensations?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- D. Shame or disgust about yourself?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- E. Destructive thoughts or feelings about view of self?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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5. Do you follow any dietary theories or methodologies? Have you tried any specific dietary regimens (e.g., paleo diet, blood type diet, raw food diet, veganism, alkaline diet, and so forth)
-
-

A. If yes, what was the reason you decided to try these diets and how long did you attempt them for?

Additional Notes

INTERPRETING THE DIETARY BELIEFS SUBCATEGORY

Items from the dietary beliefs subcategory attempt to gather information to evaluate the client's beliefs and thoughts about dietary rules and food consumption or preparation. The purpose of this subcategory is to investigate if the client has obsessive and/or extreme beliefs or thoughts around healthy food consumption.

Item	Important Information	At-risk for orthorexia	Exhibited by client
1	If the client scores a 1 or higher.	Following dietary beliefs and behaviours give a sense of personal control. Following rules may also lead to increased self-esteem, self-worth, and personal satisfaction.	[]
2, 3	If the client scores a 3 or higher on any of the items ask probing questions to gather further information about that particular item.	Rigid beliefs and behaviours towards evaluating the source, processing, packaging, and/or nutritional values, of food. Spends excessive amounts of time preparing, buying, and planning for meals.	[]
4	If the client scores 3 or higher on any of the items ask probing questions to gather further information about that particular item.	Violation of dietary rules and restrictions cause intrusive beliefs about fear of disease, hypochondriasis (health anxiety), sense of personal impurity, negative physical and physiological sensations, and feelings of guilt and shame.	[]
Other	The overall sense of how the client's beliefs about their self-imposed rules and restrictions impact them physiologically and psychologically.		[]

PHYSICAL HEALTH SUBCATEGORY

Directions: Read the following questions to the client and describe their responses to each question. Where applicable, check-off items that apply to the client. Circle the rating that best applies to the client using the 6-point Likert scale. For each item, ask the client “over the course of the past 3 months”.

1. When was the last time you saw a medical professional? What was the reason for the visit and what types of examinations were conducted?

2. Have you ever been diagnosed with a weight or eating-related disorder?

3. More specifically, have you noticed any symptoms or did your medical professional conduct any tests or make any comments related to:

- Menstrual history and complications
- Any type of information related to a diagnosis
- Cardiovascular (e.g., dizziness, chest pain, ankle swelling)
- Gastrointestinal (e.g., constipation, bloating after meals, heartburn, diarrhea)
- Dermatologic (e.g., dry skin, thin hair, dry mouth)
- Psychiatric medications
- Weight gain/loss, weight fluctuations
- Other general symptoms (e.g., fatigue, dehydration, fatigue, mood changes, feeling cold)

A. Did you notice any relationship between any of these symptoms and your self-imposed dietary rules and restrictions?

Additional Notes

INTERPRETING THE PHYSICAL HEALTH SUBCATEGORY

The goal of the physical health subcategory is to gather information about whether the client has had any severe weight loss, malnutrition, or medical challenges because of self-imposed dietary rules or restrictions. It is recommended that a medical screening and a laboratory investigation be conducted by a medical professional prior to or during the process of screening for orthorexia.

Item	Important Information	At-risk for orthorexia	Exhibited by client
1, 2	Any history of weight or eating-related disorders.	It is not uncommon to move from bulimic/anorexic behaviours to orthorexic behaviours. Instead of fixating on body weight or image, the focus is on the quality of the food and the bodily experience of purity.	[]
3	If the client notices any relationship between medical complications and self-imposed dietary rules and restrictions.	Similar symptoms as anorexia and bulimia. Complications with menstruation, cardiovascular health, gastrointestinal health, dermatological health, and a range of other symptoms.	[]
Other	Mannerisms or attitudes around attending or booking an appointment with medical professionals.	May not believe they have a problem which can lead to abrasive behaviour towards booking an appointment or following-through with lab or medical tests.	[]

INTERPERSONAL FUNCTIONING SUBCATEGORY
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Directions: Read the following questions to the client and describe their responses to each question. Where applicable, check-off items that apply to the client. Circle the rating that best applies to the client using the 6-point Likert scale. For each item, ask the client “over the course of the past 27 days”.

- 1) Have you received any scrutiny from family, friends, coaches, or any medical professionals about your dietary beliefs or behaviours about healthy food consumption?

A. How often have these beliefs or behaviours interfered with your ability to function at work, at school, or in any other recreational activities?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

B. To what degree has your dietary beliefs or behaviours about healthy food consumption interfered with your ability to function at work, at school, or in any other recreational activities?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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- 2) Has thinking about your body weight or shape interfered with your ability to function at work, at school, or in any other recreational activities?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

A. To what degree have your beliefs or behaviours about your body weight or shape interfered with your ability to function at work, at school, or in any other recreational activities?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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Additional Notes

INTERPRETING THE INTERPERSONAL FUNCTIONING SUBCATEGORY

Items from the interpersonal functioning subcategory assess whether the client is experiencing interpersonal impairments in recreational, vocational, and/or academic-related functioning because of their beliefs or behaviors about healthy food consumption.

Item	Important Information	At-risk for orthorexia	Exhibited by client
1	<p>Any discrepancies in the client's responses.</p> <p>Ask probing questions or more open-ended questions if the client scores higher than 1 on item A and higher than 3 on item B.</p>	<p>Despite comments from multiple external sources about orthorexic behaviours/beliefs, the individual still believes there is no impact on interpersonal functioning.</p>	[]
2	<p>Ask probing questions or more open-ended questions if the client scores higher than 1 on item A and higher than 3 on item B.</p>	<p>There is evidence of interpersonal impairments at work, at school, or in other recreational activities due to dietary beliefs and restrictions.</p>	[]
Other	<p>Beliefs or behaviours about healthy eating that have taken precedence over interpersonal functioning in recreational, vocational, and/or academic-related activities.</p>		[]

BODY SHAPE AND IMAGE SUBCATEGORY

Directions: Read the following questions to the client and describe their responses to each question. Where applicable, check-off items that apply to the client. Circle the rating that best applies to the client using the 6-point Likert scale. For each item, ask the client “over the course of the past 27 days”.

1. How frequently do you experience dissatisfying thoughts about your weight or shape?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

[If client receives a score higher of 1 or higher on question 1]

A. To what degree do you feel dissatisfied about your body weight or shape?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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B. To what degree do you feel shameful or guilty about your body weight or shape?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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C. To what degree do you feel shameful or guilty about the purity or health of your body?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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D. To what degree has thinking about your body weight or shape interfered with your ability to engage with work, school, and/or recreational activities?

0 - Never	1- Rarely	2 - Sometimes	3 - Often	4 - Usually	5 - Always
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E. Has there been times when the above symptoms have been better or worse?

F. Have any of these issues impacted you over the course of the last 2-3 months?

2. How often have you weighed yourself?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

- A. What is that experience been like for you?

3. Have you had a desire to lose weight (number on the weight scale)? What is that experience been like for you?

- A. How determined have you been to lose weight?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

4. Do you consume healthy foods to change your body weight/shape or is it for other reasons? (E.g., holistic purposes, feeling good, etc.)

5. Have you used any weight-controlling substances to control your shape, weight, or health? Describe the types of weight-control substances you have used? [examples might include fasting, self-induced vomiting, laxatives, diuretic, over exercising]

- A. How often have you used these weight-controlling substances over the course of the last 27 days?

0	1	2	3	4	5
0 days	1 - 6 days	7 - 13 days	14 - 20 days	21 - 26 days	27 days

- B. [Ask the client the same question from (4. A) but “over the course of the last 2-3 months”]

Additional Notes

INTERPRETING THE BODY SHAPE AND IMAGE SUBCATEGORY

The aim of the body shape and image subcategory is to assess the client's perceptions, thoughts, and behaviours about their body weight or appearance. Gathering information in this area will allow you to better discriminate whether the client is at-risk for orthorexia, another eating disorder, or neither. Sufferers of eating disorders are more likely to fixate on changing their body weight or shape whereas sufferers of orthorexia are more likely to be satisfied with body shape or weight and not demonstrate body image dissatisfaction. Body image dissatisfaction can be defined as an individual's perceived discrepancy between their current body image (i.e., perceptions, beliefs, thoughts, and feelings regarding one's actual body weight and shape) and their idealized body image (i.e., internal ideals about the way they wish their physical shape or weight should appear).

Item	Important Information	At-risk for orthorexia	Exhibited by client
1	<p>If the client scores a 1 or higher on item 1.</p> <p>If the client scores a 3 or higher on any items between A to D.</p>	<p>Body image dissatisfaction resulting from physical "impurity" rather than weight or shape concern. Typically there is lower levels of body image dissatisfaction among individuals at-risk for orthorexia.</p>	[]
2, 3, 4	<p>These items are designed to gather information about the client's thoughts, perceptions, and behaviours toward their body image and shape. Using the items provided and clinical judgement, evaluate the client's concern for weight shape/weight or bodily purity/health.</p>	<p>Typically, much greater concern for body purity or health opposed to concern for body image or weight.</p>	[]
5	<p>Obtain further information if the client scores higher than 1 on item 5 and/or has any history of weight-control substance usage. Ask probing questions to determine the reasons for using substances.</p>	<p>More likely to use weight-controlling substances for detoxifying or purifying purposes to maximize body health/purity.</p>	[]

Item	Important Information	At-risk for orthorexia	Exhibited by client
Other	Any information that can help in identifying the client's beliefs, thoughts, and behaviours toward personal view of body weight/shape.		[]

SUMMARY OF CRITERIA FOR EVALUATING ORTHOREXIA

The following table summarizes the symptoms that would put the client at-risk for orthorexia or for an alternative eating disorder. Use information gathered from all components of the assessment process (i.e., multiple tests) to ensure that the client demonstrates a consistent pattern of that specific symptom item. It is important that these patterns are consistent because this information will be needed when making any diagnostic conclusions and recommendations about the client. There is a total of eighteen items in the symptoms category, of which, seven are diagnostic items. Diagnostic items (with a **) are directly taken from the proposed diagnostic criteria for orthorexia. The client should receive therapeutic recommendations based on their unique set of symptoms. If the client's symptoms better fit an alternative mental disorder in the DSM-V then he or she should receive recommendations for that disorder before being considered for orthorexia.

See the recommendations section for more detailed suggestions about recommendations. Components from the table below along with any evidence to support these conclusions should be included in the Interpretations and Case Summary section of the assessment report.

Symptoms	Assessment Category	At-risk for Orthorexia	At-risk for an Eating Disorder
Unusual eating habits that may include skipping meals, entire food groups, and consuming or eliminating food at specific times of the day.	Recent Eating Behaviours	✓	✓
Self-imposed rules and restrictions regarding food preparation, selection, and consumption.	Dietary Rules and Restrictions	✓	✓

Symptoms	Assessment Category	At-risk for Orthorexia	At-risk for an Eating Disorder
**Self-imposed rules and restrictions that occur frequently and are concrete.	Dietary Rules and Restrictions	✓	✓
Self-imposed rules and restrictions are designed to lose weight, change body image/shape.	Dietary Rules and Restrictions		✓
**Self-imposed rules and restrictions are designed to optimize health and/or obtain physical purity. Limited or lack of desire to lose weight or change body image/shape.	Dietary Rules and Restrictions	✓	
Greater concern for food quality (nutrients, source of food) versus food calories (low calorie).	Dietary Rules and Restrictions	✓	
**Violation of self-imposed rules causes negative physical and physiological sensations, anxiety, and feelings of guilt and shame.	Dietary Rules and Restrictions Dietary Beliefs	✓	✓
Feelings of impurity and disgust when acting and thinking about violating dietary rules and restrictions.	Dietary Rules and Restrictions Dietary Beliefs	✓	✓
Distorted beliefs and superstitions about food preparation, selection, and consumption.	Dietary Rules and Restrictions Dietary Beliefs	✓	✓
Food preparation, selection, and consumption are based on food theories or methodologies.	Recent Eating Behaviours Dietary Beliefs Dietary Rules and Restrictions	✓	✓
**Medical complications with menstruation and cardiovascular and gastrointestinal issues. Severe weight fluctuations.	Physical Health	✓	✓

Symptoms	Assessment Category	At-risk for Orthorexia	At-risk for an Eating Disorder
Previous history of eating or weight disorders (diagnosed or not)	Physical Health	✓	✓
Reluctant to attend or book appointments with medical professionals. Denies having an eating-related problem despite physical, mental, behavioural issues.	Physical Health Interpersonal Functioning	✓	✓
**Severe interpersonal impairments at work, at school, or in other recreational activities due to dietary beliefs and restrictions.	Interpersonal Functioning	✓	✓
Body image dissatisfaction concerning body weight or shape.	Body Shape and Image	✓	✓
**No or limited evidence of body image dissatisfaction concerning body weight or shape. If there is body image dissatisfaction, it is a result of feelings of bodily impurity or poor health.	Body Shape and Image	✓	
History of weight-controlling substances usage.	Body Shape and Image	✓	✓
**Primary use of weight-controlling substances is to optimize health or obtain sense of purity.	Body Shape and Image	✓	

REPORTING THE RESULTS FROM THE CLINICAL INTERVIEW

After the interview has been scored and interpreted, the results can be written in a formal assessment report and delivered to the client. The model suggested for reporting the results of the interview will be the hypothesis-testing model. In this model the assessor uses his or her initial hypothesis or conceptualizations about the client's problem and arranges the data to support their conclusions about the client's risk level for orthorexia. The interpretations and case summary section of the assessment report (see below) is where you will utilize a hypothesis-testing model. There are several components that will be addressed in the assessment report: background information, assessment procedures, behavioural observations, assessment results, case interpretations and summary, and case recommendations.

STAGE THREE: THE ORTHOREXIA ASSESSMENT REPORT

Include the following heading for your report:
PSYCHOLOGICAL REPORT: PROFESSIONAL USE ONLY

When writing the assessment report:

- Specific test data must be cited to support any conclusions made about the client.
- Any conclusions should be based on consistent patterns in behaviours, thoughts, and beliefs across all tests administered (intake interview, questionnaires, and the interview)
- Avoid including technical jargon or test data in the recommendations section. Keep it as simple as possible.
- The report should include dates for administered tests and a signature with the date the report was finalized and debriefed with the client.

Background Information

Include information about age, gender, weight (i.e., current, highest, lowest, ideal), ethnicity, marital status, occupation, living situation, educational background, and any other relevant information. Provide details from the client's initial intake interview; specifically, information from sections: reasons for counselling, referral reasons, and other relevant history. Highlight whether the client volunteered or not for the assessment and if the client has any immediate supports or resources. Include any information about previous eating disorder history or treatment.

Assessment Procedures

The full assessment guidelines for ON includes three stages: the initial intake interview and the eating disorder screen for primary care (ESP), three self-report questionnaires for ON, followed by a semi-structured interview for ON. At each stage of the assessment, the assessor determines if further assessment is required to evaluate if the client is at-risk for

orthorexia or an alternative eating disorder. Begin this section by explaining what steps of the assessment guidelines were conducted including information about the decision-making process made in continuing or concluding with the assessment process.

Assessment Results

This section includes specific information about all the tests conducted. Ensure the tests are put into context by describing each test conducted, the purpose of each test, and the findings from each test. Include information available about test construction, and test reliability and validity (see literature review or see reference section). Put the scores in context and report significant scores (see recommendations). Summarize the findings from the test scores without referring specifically to the test data and avoid technical jargon.

Behavioural Observations

Include any additional information that was gathered based on observing the client throughout the assessment process. Provide details about any significant reactions from the client during the assessment along with the circumstances surrounding these occurrences. This section is where you may report any noteworthy mannerisms and attitudes exhibited by the client during the assessment process.

Interpretations and Case Summary

Using a hypothesis-testing lens, state the initial hypothesis followed by the conclusions that have been made based on the client's risk level for orthorexia. Identify interpretations and findings from individual tests to support all conclusions made. Also identify any connections between the results on individual tests. Another aim of this section is to summarize the results and present a “total picture” of the case to the client and any third-party members.

Clinical Recommendations

The recommendations section is where you provide the case summary to the client and include recommendations regarding future referral, assessment, and treatment. There are numerous recommendations that could be made based on the client's current level of functioning, the resources available to him/her, and the client's openness for psychotherapy or alternative methods of treatment (e.g., pharmacology treatment, local eating disorder groups or programs).

Thus far, no studies have examined treatment effectiveness for orthorexia. The recommendations provided below are based on the literature and treatments designed for other eating disorder such as anorexia and bulimia. When providing recommendations for any form of eating disorders, it is best to provide interventions that consider the specific symptoms that are prominent for the patient. A multidisciplinary team of health professionals capable of providing different types of treatments is recommended at all risk levels. If there are any immediate medical concerns or complications, it is recommended that a referral is made for immediate hospitalization.

SEMISTRUCTURED CLINICAL INTERVIEW RECOMMENDATIONS

Symptoms	Risk Level	Recommendations
One or fewer diagnostic items; five or under symptoms.	Low	General counselling; nutritionist; naturopathic physician, medical professional (monitoring); psychoeducation; nutritionist/dietician; referral to other resources that clinical/ non-clinical based.
Two to five diagnostic items; six to ten symptoms.	Moderate	All from low risk level; eating-disorder specific counselling (individual psychotherapy); group psychotherapy; structured inpatient treatment and partial hospitalization programs; psychiatric management; nutritional rehabilitation with a nutritionist/ dietician.
Five or more diagnostic items; ten or more symptoms.	High	All from low and moderate risk level; family counselling; structured in/outpatient; immediate hospitalization (depending on symptoms); psychotherapeutic techniques designed for orthorexia treatment (e.g., cognitive restructuring, behaviour modification, and exposure and response prevention)

DEBRIEFING THE CLINICAL INTERVIEW

There are several considerations that need to be made when debriefing the client whether it is informally (verbally during the session) or formally (a written assessment report).

- > When delivering specific test scores, explain the results in a manner that the client can understand.
- > Avoid jargon or any terminology that may be immediately recognizable by the client.
- > Use language that is appropriate for the age group of the client.
- > Provide context when sharing the results to the client. Share with the client how their scores or behaviours, thoughts, beliefs compare to others with similar problems.
- > Use academic literature and clinical experience when providing context.
- > Clinical experience may include sharing with the client how their results support or differ from what you have gathered from administering the assessment guide to other clients.
- > Explain to the client how you have come to your conclusion about specific parts of the assessment. This includes interpretations from the sources (i.e., intake interview, self-report questionnaires, and semi-structured interview) used in this assessment guide.
- > Explain any limitations of the assessment guide to the client. For example, some of the limitations of the assessment guide is that it is not empirically valid or reliable, has not been normed with any specific populations, and places significant importance on professional clinical judgement.
- > Remind client's that the assessment guide does not definitively represent future performance or behaviour; the guide only provides a snapshot of the client's current functioning.

PSYCHOEDUCATION

Given that orthorexia nervosa is a new term in the eating disorder literature, clients are unlikely to understand the implications of being at-risk for orthorexia. Give the client the following handouts: *the psychoeducation sheet for orthorexia nervosa*, *the proposed diagnostic criteria for orthorexia*, and *the similarities and differences between orthorexia, anorexia, and obsessive-compulsive disorder*. Answer any questions the client may have and encourage them to do their own research about orthorexia.

ORTHOOREXIA NERVOSA

What is orthorexia nervosa?

Orthorexia nervosa is defined as “a fixation on righteous eating” and is best described as an obsession with consuming healthy foods. Typical behaviours may include spending significant amounts of time planning, buying, and preparing nutritious meals nutritious meals where each departure from this regime causes significant anxiety and guilt, which led to further constraining of the dietary habits.

What can put you at-risk for developing orthorexia nervosa?

Individuals at-risk for orthorexia often display characteristics that are similar to individuals at-risk for anorexia nervosa and bulimia nervosa. Some of these include body shape or weight issues, physical health impairments, dietary rules and restrictions, preoccupation with consuming healthy or pure foods, rituals and bizarre behaviours around food preparation, cooking, and cooking; and deterioration of relationships among friends, family, and peers.

What is the difference between orthorexia nervosa and other eating disorders?

The main difference between orthorexia and other eating disorders is an emphasis on following dietary rules and restrictions to achieve the feeling of purity and optimal health versus a drive to achieve a specific body weight or shape. For individuals with orthorexia, weight loss may occur as a result of their dietary restrictions; however, the desire to lose weight is absent, unseen or subordinate to healthy eating.

Where does orthorexia fit as a disorder in the DSM-V?

Orthorexia is considered under the unspecified feeding or eating disorder (UFED) category because it has yet to be defined as a distinct disorder in the DSM-V. Only a proposed diagnostic criterion for orthorexia has been created thus far.

How does someone get orthorexia?

Ironically individuals at-risk for orthorexia begin with a desire to eat healthy and to optimize physical and mental health. However, in some cases, the underlying motivation is to create and identity use food to search for spirituality, to improve self-esteem, to escape from anxiety or fear, or to gain control. The most common sufferers of orthorexia are athletes, yoga teachers, dieticians, students in kinesiology and nutrition programs, and health-conscious people.

How can you tell if you have orthorexia?

If you suspect you are at-risk for orthorexia it is best to schedule an appointment with your physician, so that they can conduct the appropriate screening and laboratory tests for an eating disorder. The next step might include seeing a mental health professional with the assessment guide for orthorexia. Using the assessment guide, your counsellor can help determine if you are at-risk for orthorexia and whether referral is required to receive further assessment or treatment.

PROPOSED DIAGNOSTIC CRITERIA FOR ORTHOREXIA**Criterion A:**

Obsessive focus on “healthy” eating, as defined by a dietary theory or set of beliefs whose specific details may vary; marked by exaggerated emotional distress in relationship to food choices perceived as unhealthy; weight loss may ensue as a result of dietary choices, but this is not the primary goal. As evidenced by the following:

1. Compulsive behavior and/or mental preoccupation regarding affirmative and restrictive dietary practices believed by the individual to promote optimum health.
3. Violation of self-imposed dietary rules causes exaggerated fear of disease, sense of personal impurity and/or negative physical sensations, accompanied by anxiety and shame.
3. Dietary restrictions escalate over time, and may come to include elimination of entire food groups and involve progressively more frequent and/or severe “cleanses” (partial fasts) regarded as purifying or detoxifying. This escalation commonly leads to weight loss, but the desire to lose weight is absent, hidden or subordinated to ideation about healthy eating.

Criterion B:

The compulsive behavior and mental preoccupation becomes clinically impairing by any of the following:

1. Malnutrition, severe weight loss or other medical complications from restricted diet.
2. Intrapersonal distress or impairment of social, academic or vocational functioning secondary to beliefs or behaviors about healthy diet.
3. Positive body image, self-worth, identity and/or satisfaction excessively dependent on compliance with self-defined “healthy” eating behavior.

SIMILARITIES AND DIFFERENCES BETWEEN DIFFERENT DISORDERS

	Orthorexia	Anorexia	OCD
Distinctive Features	<ul style="list-style-type: none"> • Restrictive rules regarding food • Emphasis on the quality of food • Preoccupation with consuming healthy/pure food • No consensus on gender differences • Ego-syntonic obsessions • Desire to maximize health • Flaunts behaviours 	<ul style="list-style-type: none"> • Desire to be thin • Emphasis on food quantity • Female prevalence mainly • Body image disturbance • Hidden rituals regarding food • Fat-fear • Drive for thinness; excessive exercising 	<ul style="list-style-type: none"> • Realization that some obsessions and rituals are bizarre or obsessive • Ego-dystonic obsessions • Obsessions and compulsions may extend beyond food
Overlap with ON		<ul style="list-style-type: none"> • Self-discipline • Need for control • Social isolation • Deviance from diet = failure • Perfectionism • Cognitive distortions regarding food • Malnutrition from restrictive food intake • Guilt over food transgressions 	<ul style="list-style-type: none"> • Over concern with contamination • Social isolation • Ritualized dieting • Impairment of routine • Perfectionism

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