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Predictors of Counselors Accurately Diagnosing Obsessive Compulsive Disorder (OCD) and Recommending OCD-Specific Empirically Supported Treatments (ESTs)

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
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Walden University
2024

Abstract

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by

Natalie E. Grierson

MS, Wright State University, 2018

BA, BASW Ohio University, 2015

Dissertation Submitted in Partial Fulfilment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Research has supported that obsessive-compulsive disorder (OCD) is frequently misdiagnosed and not treated with OCD-specific, empirically supported treatments (ESTs) by healthcare professionals, resulting in negative consequences. Empirical findings are mixed regarding what predicts this and if counselors contribute to the concerns; therefore, it is imperative to investigate this with counselors. Using a medical model framework, the purpose of this quantitative study was to (a) examine the rate of counselors in the United States accurately diagnosing OCD, (b) identify the predictors for counselors accurately diagnosing OCD, (c) examine the rate of counselors recommending OCD-specific ESTs, and (d) identify the predictors for counselors recommending OCD-specific ESTs. Online surveys were distributed to counselors. Participants (n=130) were asked to diagnose and recommend treatments after reading a case vignette depicting OCD. Descriptive and logistic regression analyses supported that 62.3% of counselors accurately diagnosed OCD and 83.8% of them recommended OCD-specific ESTs across varying subtypes. The OCD subtype predicted diagnostic accuracy, with counselors nearly six times more likely to diagnose OCD accurately in nontaboo subtypes. When counselors had a theoretical orientation that included an OCD-specific EST, they were over five times more likely to recommend an OCD-specific EST. The results supported that OCD treatment remains an issue in the field, with counselors contributing to the concerns. Implications for social change included improving public awareness, clinical practices, and training programs regarding OCD assessment and treatment.

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Chapter 1: Introduction to the Study

Over two million adults in the United States have been diagnosed with obsessive-compulsive disorder (OCD), with most of them having severe symptoms (Harvard Medical School, 2007; Ruscio et al., 2010). For individuals with OCD, the gap between symptom onset and receiving adequate treatment can be up to 17 years (Hollander et al., 1998; Pinto et al., 2006; Senter et al., 2021; Sloan, 2022). Misdiagnosis and recommendations for ineffective treatment have contributed to this delay (Marques et al., 2010; Senter et al., 2021). Research has suggested that OCD is frequently misdiagnosed and not treated with OCD-specific empirically supported treatments (ESTs), which have negative consequences.

While many researchers have addressed the accuracy of OCD diagnosis and treatment recommendations, very few studies have included counselors in their samples; therefore, the rate of counselors accurately diagnosing OCD and recommending ESTs for OCD is unclear. Additionally, correlating factors have varied in these studies, confusing what predicts accurate OCD diagnosis and OCD-specific EST recommendations among professionals. Symptoms of OCD significantly impact quality of life; therefore, research to improve the accuracy of OCD diagnosing and treatment practices will positively impact those who experience symptoms. Better understanding of counselors' abilities in accurately diagnosing and treating OCD will support counselor educators' efforts in training future counselors.

In this chapter, I provide background regarding these issues supported by the current literature and identify the knowledge gap. I discuss the purpose, research problem, research questions, and hypotheses regarding my study that address these concerns. I present the theoretical framework and nature of the study that aligns with the study's inquiry. I also discuss definitions of terms, scope and delimitations, limitations, and significance of the study.

Background

OCD is a common mental health disorder with symptoms of frequent distressing thoughts and repetitive behaviors. Symptoms of OCD significantly impact individuals' quality of life and mental well-being, especially when OCD subtypes are taboo, a term frequently used in literature to describe specific themes of OCD symptoms (Bloch et al., 2008; Brakoulias et al., 2013; Hollander et al., 1998; Moritz et al., 2005; Pinto et al., 2007; 2008; Sharma & Math, 2019; Williams et al., 2013). Given that the suicide and premature mortality rates are higher in individuals with OCD than the general population, numerous researchers have investigated effective treatments for the disorder (Benatti et al., 2021; Krebs et al., 2021; Meier et al., 2016; Pellegrini et al., 2020). The symptoms, prevalence, and impact of OCD have been discussed extensively in the literature.

The American Psychological Association's (APA) Society of Clinical Psychology (SCP) Division 12 (2022) has identified exposure and response prevention (ERP) therapy, cognitive behavioral therapy (CBT) for OCD, and acceptance and commitment therapy (ACT) as leading ESTs for OCD. Substantial research (see Foa & McLean, 2016;

Hezel & Simpson, 2019; Hill & Beamish, 2007; Janardhan Reddy et al., 2007; Olatunji et al., 2013; Öst et al., 2015; Rosa-Alcázar et al., 2008; Sassano-Higgins & Palto, 2015; Skapinakis et al., 2021; Sloan, 2022; Van Niekerk, 2018) has favored ERP as the most effective, first-line approach for treating OCD. I discuss a more detailed description of OCD's symptoms, taboo/non-taboo subtypes, prevalence, impact, and treatment recommendations in the literature review.

OCD Diagnosis and Treatment Issues

There are various barriers for individuals receiving adequate treatment for OCD symptoms, including misdiagnosis and non-OCD-specific EST use from providers. Healthcare providers, including mental health professionals, inaccurately diagnose OCD at significant rates (Senter et al., 2021; Stahnke, 2021). Researchers (Challacombe & Wroe, 2013; Glazier et al., 2015; Gouniai et al., 2022a; Sharma & Mazmanian, 2021) have investigated healthcare providers, such as primary physicians, accurately diagnosing OCD and recommending ESTs in various global regions. For instance, Glazier et al. (2015) found that half of the physicians in their study misdiagnosed OCD in case vignettes. The findings from the studies discussed (Challacombe & Wroe, 2013; Glazier et al., 2015; Gouniai et al., 2022a; Sharma & Mazmanian, 2021) supported that healthcare providers frequently misdiagnose OCD and often recommend non-OCD-specific ESTs.

While mental health professionals are better equipped to diagnose and treat OCD than general healthcare providers, they are also susceptible to misdiagnosing OCD and treating it with non-OCD-specific ESTs. Researchers (Glazier et al., 2013; Perez et al., 2022; Stanley et al., 2017; Wahl et al., 2010) have explored misdiagnosis and non-EST use among mental health professionals, such as psychologists and social workers, in various international regions. The studies' conclusions supported that mental health professionals frequently misdiagnosed OCD and recommended non-OCD-specific ESTs. Glazier et al. (2013) found that over a third of mental health professionals, mainly psychologists, misdiagnosed OCD in case vignettes. Researchers (Leung & Palmer, 2016; Maršanić et al., 2011; Porth & Geller, 2018; Rohanachandra & Vipulanandan, 2019) have presented case studies that suggest there are negative consequences for individuals with atypical or taboo OCD subtypes who have been misdiagnosed or treated with non-OCD-specific ESTs. Studies (Glazier & McGinn, 2015; Gouniai et al., 2022a) conducted with samples of non-professionals, such as psychology students and clergy members, also supported high rates of misrecognition and non-OCD-specific ESTs for OCD.

While it is understood that OCD is commonly misdiagnosed and treated with non-OCD-specific ESTs., the literature is mixed regarding which factors predict accurate OCD diagnosis and OCD-specific treatment. Many studies (Glazier & McGinn, 2015; Glazier, 2013; Gouniai et al., 2022a, 2022b; Perez et al., 2022) have supported that taboo subtype vignettes were misdiagnosed at higher rates than non-taboo vignettes. This is expected, considering these subtypes are often misunderstood; however, other predictors varied. Glazier et al. (2013) found that the mental health professionals' theoretical orientation was a statistically significant predictor, as professionals with a CBT orientation were more likely to diagnose OCD accurately. However, Perez et al. (2022) found that mental health professionals' theoretical orientations were not statistically significant predictors for accuracy in diagnosing OCD. Due to these mixed findings, it is unclear if mental health professionals' theoretical orientations predict their accuracy in diagnosing and treating OCD.

While it seems plausible that mental health professionals with more experience can diagnose OCD more accurately than novice professionals, researchers (Glazier et al., 2013; Perez et al., 2022) have found that participants' years of experience were not predictors for accurately diagnosing OCD. Additionally, it is unclear if a mental health professional's clinical specialty predicts accuracy in OCD diagnosis. Glazier et al. (2013) found that having a CBT theoretical orientation was a predictor for accurately diagnosing OCD; however, Perez et al. (2022) did not find theoretical orientation as a significant predictors for accurate OCD diagnosis and OCD-specific EST recommendations.

There is support that an accurate diagnosis predicts OCD-specific EST recommendations among providers, as found by Glazier et al. (2015) and Perez et al. (2022). However, many researchers (Hipol & Deacon, 2012; Deacon & Farrell, 2013; Goldfried et al., 2013; Gunter & Whittal, 2010; Marques et al., 2010; Schwartz et al., 2013; Stanley et al., 2017; Whiteside et al., 2016; Wolitzky-Taylor et al., 2015) found that mental health professionals do not recommend or implement ESTs for OCD even following an accurate diagnosis. Consequently, it is unclear if mental health professionals' abilities to accurately diagnose OCD predict them recommending OCD-specific ESTs.

Addressing the Knowledge Gap

It is evident that among various professionals, including mental health professionals, accurately diagnosing OCD and recommending OCD-specific ESTs is a concern. While there is substantial research on this topic, the extent to which counselors contribute to these issues is unclear. Counselors are frequently excluded, unidentified, or underrepresented from studies investigating concerns with OCD diagnosis and EST use. As integral members of the mental health field, counselors are expected to diagnose and treat mental health disorders accurately.

OCD is debilitating to those diagnosed with it. Researchers have emphasized ERP, CBT, and ACT as ESTs to reduce OCD symptom severity. However, substantial evidence supports that individuals are frequently misdiagnosed and ineffectively treated with non-ESTs by healthcare providers, including mental health professionals. As counselors are rarely included in studies investigating such issues, the present study addresses the gap in the literature regarding the accuracy of diagnosing OCD and recommending OCD-specific ESTs for OCD among counselors. The studies discussed in this section indicated predictors such as (a) OCD subtype, (b) professional's theoretical orientation, (c) professional's years of experience, and (d) professional's clinical specialty yielded mixed results in previous research studies regarding accurate diagnosis and OCD-specific EST recommendations. Consequently, in the present study, I included these variables to identify statistically significant predictors for accurately diagnosing OCD and recommending OCD-specific ESTs for OCD among counselors.

Problem Statement

Decades of research have indicated that healthcare professionals, including mental health professionals, misdiagnose OCD and use non-OCD-specific ESTs (Senter et al., 2021; Stahnke, 2021). However, the rate and predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs are unclear from the existing research. Given the significant impact of OCD on those diagnosed with the disorder, it is critical that all mental health professionals, including counselors, can accurately diagnose it and recommend OCD-specific ESTs.

Examining rates and predictors for accurate diagnosis and OCD-specific EST recommendations for OCD among counselors is worth investigating to further understand concepts that are integral to diagnosing and treatment practices. This understanding can inform individuals who have OCD to help them find adequate treatment providers. The study can also inform counselors in practice who are working with those with OCD. Further, graduate and post-graduate training programs can use this study’s conclusions to implement training that addresses diagnosing and treatment practices with OCD. The predictors identified associated with accurately diagnosing OCD and recommending OCD-specific ESTs for OCD, will improve understanding within programs regarding factors that may improve treatment practices among counselors. In this present study, I addressed the gap in knowledge by examining the rates and predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs for OCD among varying subtypes.

Purpose of the Study

The purpose of this quantitative, correlational study was to (a) examine the rate of counselors in the United States accurately diagnosing OCD, (b) identify the predictors for counselors accurately diagnosing OCD, (c) examine the rate of counselors recommending OCD-specific ESTs, and (d) identify the predictors for counselors recommending OCD-specific ESTs. The predictor variables for this study were (a) OCD subtype, (b) counselor theoretical orientation, (c) counselor years of experience, and (d) counselor clinical specialty.

Research Questions and Hypotheses

Research Question 1 (RQ1): What is the rate of counselors accurately diagnosing obsessive-compulsive disorder across varying subtypes?

Research Question 2 (RQ2): Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder?

Null Hypothesis ($H_0$2): There is no statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder.

Alternative Hypothesis ($H_1 2$): There is a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder.

Research Question 3 (RQ3): What is the rate of counselors recommending obsessive-compulsive disorder-specific empirically supported treatments across varying subtypes?

Research question 4 (RQ4): Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments?

Null Hypothesis ($H_0 4$): There is no statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments.

Alternative Hypothesis ($H_1 4$): There is a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments.

Theoretical Framework

I used the medical model as the theoretical framework for this study. Often referred to as the biomedical model, the medical model indicates that illness can be explained by biological dysfunction within the human body and specific treatment approaches should be used in accordance with the dysfunction (Rocca & Anjum, 2020; Tantawi, 2020). In their review of the medical model, Huda (2021) asserted that concepts such as disease and illness are integral to the medical model. Healthcare providers using the medical model transform individuals' reports of presenting symptoms into categories based on their criteria to form a diagnosis (Hofmann, 2005; Huda, 2020). The systematic and deductive approach of the medical model has dominated healthcare for centuries. It has been standardized through global publications of diagnosing and treatment classification guides for healthcare providers (Piotrowski, 2023).

When the medical model is applied to mental health, it suggests that psychiatric issues result from a mental disorder (Huda, 2021). Shah and Mountain (2007) stated that the medical model in a mental health setting involves mental health professionals using a deductive process to identify and categorize individuals' pathology symptoms and treat them with ESTs. In their overview and critique of the medical model, Wampold et al. (2001) asserted that it consists of sequenced steps for clinicians in the mental health field. First, the mental health professional identifies the presenting issue for the client and connects the issue to a psychological classification, such as a psychiatric diagnosis. Then, the mental health professional uses ESTs to promote the desired therapeutic change congruent to the client's issue (Wampold et al., 2001). Using the medical model, both physical and mental health issues are treated by healthcare providers to identify disorder symptoms and intervene accordingly.

Research has supported that mental health professionals accurately diagnosing and treating individuals with ESTs are integral to a medical model framework and present numerous advantages, which will be discussed further in Chapter 2 (Craddock & Mynors-Wallis, 2014; Huda, 2021; Lilienfeld et al., 2016; Rocca & Anjum, 2020; Shah & Mountain, 2007; Tantawi, 2020; Wampold, 2001). Despite humanistic foundations to the counseling profession, there is empirical support that counselors routinely use the medical model to diagnose and treat mental health disorders (Bergman, 2013; Dougherty, 2005; Eriksen & Kress, 2006; Hohenshil, 1996; Van Hesteren & Ivey, 1990). As many counselors use the medical model, evaluating the accuracy and effectiveness of their application of the model is justified. Consequently, I used the medical model as the theoretical framework for this study regarding predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs.

Nature of the Study

I examined the rates and predictors of accurate OCD diagnosis and OCD-specific EST recommendations for OCD among counselors. A descriptive and correlational design was suitable for this quantitative inquiry. I used descriptive statistics to examine the rates of accurate OCD diagnosis and OCD-specific EST recommendations. I used binary logistic regression analyses to investigate predictors for accurate OCD diagnosis and OCD-specific EST recommendations, which included (a) OCD subtype, (b) counselor theoretical orientation, (c) counselor years of experience, and (d) counselor clinical specialty.

I collected data points from a single point in time regarding accuracy in diagnosing and recommending OCD-specific ESTs among participants who are counselors licensed to practice independently. I recruited participants by email, obtained through searches on Psychology Today using the 'Popular Cities' browsing feature. Additional recruitment strategies included an invitational link to complete the study through (a) professional counseling organization's member forums and ListServs, (b) Walden University's participant pool for mental health providers, and (c) social media networks.

The online survey included a case vignette and potential response items regarding diagnosis and treatment recommendations. The case vignettes and responses for diagnoses and treatment recommendations instruments were developed by Glazier et al. (2013, 2015) and permitted for use in this study with minor modifications. Participants answered questions regarding demographic factors and potential predictors at the beginning of the study. Then, participants received one of five vignettes depicting OCD and were asked to diagnose and recommend a treatment from the Glazier et al. (2013, 2015) response instruments. Using the Glazier et al. (2013) case vignettes, four taboo-oriented subtypes and one non-taboo subtype were equally distributed among participants.

Definitions

The following terms are defined as they are used throughout the present study:

Accurate Diagnosis of OCD: As used in this study, this referred to counselors identifying OCD as a diagnosis for the clinical case vignette.

OCD-specific EST recommendations: As used in this study, this referred to counselors identifying ERP or exposure therapy, CBT, or ACT as one of their EST recommendations in line with the APA's SCP Division 12 (2022) recommendations.

Cognitive Behavioral Therapy (CBT): Influenced by social, behavioral, and cognitive theories, CBT involves mental health professionals assisting individuals in identifying irrational thoughts that lead to unhealthy behaviors. A CBT approach entails therapeutic goals to replace maladaptive thoughts and behaviors with rational beliefs to promote healthy behaviors. It is among the most utilized ESTs by mental health professionals for treating various mental health disorders (Peterson et al., 2016).

Counselor: The American Counseling Association (ACA, n.d) defined professional counseling as "a professional relationship that empowers diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals. Counselors work with clients on strategies to overcome obstacles and personal challenges that they are facing" (paras 2-3). Similarly, the American Mental Health Counselor Association (AMHCA, n.d) stated,

> Clinical mental health counseling is a distinct profession with national standards for education, training, and clinical practice. Clinical mental health counselors are

> highly-skilled professionals who provide flexible, consumer-oriented therapy. They combine traditional psychotherapy with a practical, problem-solving approach that creates a dynamic and efficient path for change and problem resolution (para 9).

According to AMHCA (n.d), titles for licensed counselors vary per state. In this study, counselors were the target population for the sample.

Counselor's Clinical Specialty: As used in this study, this referred to specific disorders counselors reported primarily treating or have an area of expertise in treating. For example, a counselor may state they have an anxiety disorder specialty.

Counselor's Theoretical Orientation: According to the APA (n.d), a theoretical orientation is "an organized set of assumptions or preferences for given theories that provides a counselor or clinician with a conceptual framework for understanding a client's needs and for formulating a rationale for specific interventions" (para 1). This study examined if the counselor's theoretical orientation is a statistically significant predictor for accurately diagnosing OCD and recommending OCD-specific ESTs among counselors. For example, a counselor may state they have a CBT orientation.

Counselor's Years of Experience: As used in this study, this referred to the number of years counselors report practicing as licensed counselors following graduation from a graduate counseling program.

Empirically Supported Treatment (EST): Defined as a specific therapy with evidence-based techniques that have been validated by research to be effective with specific diagnoses or concerns. While ESTs often serve as an integral step of evidence-based practice, the two terms differ in their historical developments and understanding (Drisko & Friedman, 2019; Lilienfeld et al., 2013).

Evidenced-Based Practice (EBP): In healthcare, EBP is defined as a general, research-supported approach to providing adequate treatment to individuals. EBP is a broad concept that involves providers (a) using strong empirical evidence that meets specific research quality criteria, (b) quality clinical judgment from prior experiences, and (c) consideration of the preference of the individual receiving the treatment (APA, Presidential Task Force on Evidence-Based Practice, 2006).

Evidenced-Based Treatment (EBT): When used in healthcare, EBT can be defined as an optimal approach to treating individuals' presenting issues. Often, randomized control clinical studies are necessary to deem interventions as EBTs (Miller et al., 2005).

Exposure and Response Prevention (ERP) Therapy: Defined as a CBT clinical intervention aimed to gradually increase individuals' tolerance to feared stimuli and control inhibition of compulsive or avoidant behaviors that reinforce fear. ERP is commonly used for anxiety disorders, specifically OCD (Foa & Goldstein, 1978; Foa & Kozak, 1985, 1986; Foa et al., 1984, 1992, 2012; Foa & McLean, 2016).

Healthcare Provider: Defined by the National Institutes of Health (2007) as "a provider of medical or health services" (para 13). Healthcare providers, also referred to as health workers, can include medical doctors, nurses, medical assistants, mental health professionals, and various other occupations within the field (World Health Organization, 2019).

Counselors Licensed to Practice Independently: Defined as licensed counselors who can practice without clinical supervision in their state. In Burns and Cruikshanks' (2018) study, they stated, "We defined independently licensed counselors as counselors who have graduated with at least a master's degree, have obtained postgraduate clinical supervision, and currently hold a license to practice as a counselor independently without supervision in their state" (p. 35). This definition was applied to this study.

Mental Health Professional: Defined as health care providers working with individuals to identify and treat mental health disorders or concerns (National Alliance of Mental Illness (NAMI), 2020). According to NAMI (2020), mental health professionals assessing and treating mental health disorders can be psychologists, counselors, and clinical social workers. Additional terms for mental health professionals include therapist or clinician (NAMI, 2020).

Obsessive Compulsive Disorder (OCD): Defined as a mental health diagnosis listed in the American Psychiatric Association's (2013) *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (DSM-5)* with the following symptom criteria (a) recurrent intrusive thoughts, referred to as obsessions, that cause distress (b) followed by behavioral or mental actions, known as compulsions, aimed to decrease distress. Compulsions are often excessive and nonsensical and cause impairment to functioning

(APA, 2013). The APA specified that these symptoms are not due to another medical or substance-induced disorders.

Obsessive Compulsive Disorder (OCD) Subtype: Defined as the categorical theme of presenting OCD symptoms. OCD subtypes are often categorized using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) (Goodman et al., 1989; Williams et al., 2013). According to the Y-BOCS, subtypes of OCD include obsessions and compulsions related to (a) harm, (b) contamination, (c) sexual thoughts, (d) hoarding, (e) religion, (f) symmetry or order, (g) illness, and (h) miscellaneous (Goodman et al., 1989). Subtypes are further categorized as taboo or non-taboo (Williams et al., 2013).

Taboo OCD Subtype: Defined as a theme of OCD that involves disturbing thoughts related to socially unacceptable concepts. Common taboo OCD subtypes often include themes related to harm, sexual, and religious content (Bloch et al., 2008; Brakoulias et al., 2013; Pinto et al., 2007; 2008; Williams et al., 2013).

Assumptions

The assumptions for this study included the following:

1. Counselors diagnosed the case study subject using their clinical judgment. Counselors refrained from consulting with internet sources, colleagues, or resources to respond to the clinical vignette. This was necessary to maintain the study’s aim to assess counselors’ ability to accurately diagnose and recommend OCD-specific ESTs.

2. Counselors who participated in the study used the medical model. Counselors who participated in the study diagnose and treat clients with mental health disorders.
3. Participants were honest regarding their licensure type.
4. Counselors were unfamiliar with Glazier et al.'s (2013) case vignettes. Counselors who participated in the study did not read the Glazier et al. (2013) study; therefore, they did not recognize that the case vignettes are related to OCD.

Scope and Delimitations

I focused on predictors for counselors accurately diagnosing OCD and recommending OCD-specific ESTs in this study. I selected the scope of this study as OCD is commonly misdiagnosed and has been examined with populations of mental health professionals other than counselors. I selected specific predictors, including (a) OCD subtype, (b) counselor theoretical orientation, (c) counselor years of experience, and (d) counselor clinical specialty, due to their varied outcomes in previous studies. Delimitations for the study included the following:

1. The study only included counselors licensed to practice independently and did not include other types of mental health professionals or counselors with a dependent license who require clinical supervision for diagnosing and treating mental health disorders.

2. The study included counselors licensed to practice independently in the United States and did not include other global regions.
3. The study did not include an assessment of counselors' abilities to accurately diagnose mental health disorders other than OCD.
4. Alternate theoretical frameworks to the medical model, such as social or holistic perspectives, were not used to conceptualize how counselors diagnose and treat clients.

Limitations

I used purposeful sampling for the study, as participants needed to be counselors licensed to practice independently. An identified challenge for this study was recruiting an adequate sample size, as many counselors have demanding schedules. To address this limitation, the time to complete the survey was brief, within 5 minutes. Another identified potential limitation of this sampling strategy was threats to external validity, such as generalizability, due to the limits of the sampling strategy used for this study (Warner, 2013). Threats to internal validity included the adaption of instruments and limited case vignettes, as discussed by Glazier et al. (2013). To mitigate this, I allowed participants to choose multiple responses for the diagnoses and treatments.

Significance

This study is significant in that it filled a gap in existing literature regarding whether counselors can accurately diagnose OCD and recommend OCD-specific ESTs. The study shed light on an ongoing issue of OCD misdiagnosis and ineffective treatment for OCD, which has been deemed a significant barrier for individuals seeking adequate care. The study identified predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs to increase understanding of important factors that contribute to this issue. Substantial research (Moritz et al., 2005; Pinto et al., 2006; Sloan, 2022; Subramaniam et al., 2012) has noted the distressing impact of OCD on those who have been diagnosed with it. Given that misdiagnosis is a barrier for individuals receiving adequate treatment for OCD, this study has implications to positively impact the OCD community and promote appropriate clinical practices among counselors treating this population.

Summary

OCD impacts millions of individuals in the United States. Research has supported CBT, ERP, and ACT as ESTs for OCD. However, many individuals face barriers to receiving adequate treatment due to OCD misdiagnosis and non-OCD-specific EST recommendations from mental health professionals working with them. While these concerns are empirically evident, the rates and predictors of counselors contributing to misdiagnosis and non-OCD-specific EST recommendations for OCD are unclear. In this quantitative study, I examined the rates and predictors of counselors accurately diagnosing and recommending OCD-specific ESTs for OCD within a medical model theoretical framework. The results of this study had various implications, including reducing barriers for individuals with OCD to receive adequate treatment and improving counselors' understanding of diagnosing and treating the disorder. In Chapter 2, I provide a thorough literature review of the critical concepts discussed in this chapter.

Chapter 2: Literature Review

Introduction

Accurate diagnosis is paramount for individuals with mental health disorders to receive adequate treatment. The mental health diagnosis of OCD is commonly misunderstood by healthcare providers, including mental health professionals (Glazier et al., 2013; 2015; Senter et al., 2021; Stahnke, 2021). Among mental health professionals treating OCD are counselors, who are often underrepresented in studies examining OCD misdiagnosis and treatment. In this chapter, I discuss the literature regarding these concerns, using the medical model as a framework. Following a description of the medical model and its use by counselors, I provide a thorough overview of OCD and ESTs. I address critical findings from a literature review regarding diagnosing and treatment concerns for OCD among professionals. These empirical findings support my study's purpose to examine the rate and predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs.

Literature Search Strategy

The literature search strategy I used included peer-reviewed journal articles, books, and professional standards (111 sources total) published between 1995-2023. My search utilized databases from Google Scholar and Walden University Library's Thoreau multi-database. I searched the internet for the ACA's 2014 Code of Ethics and the CACREP 2016 Standards.

The keywords searched included the following terms: *CACREP, clinical decision making, counselor competence, counselor professional identity, counselors diagnosing, counselors treating OCD, Diagnostic and Statistical Manual or DSM, diagnostic error or wrong diagnosis, empirically supported treatment or EST, evidenced-based practice or EBP, evidenced-based treatment or EBT, exposure and response prevention or ERP, medical model, misdiagnosis, OCD assessment, OCD awareness, OCD or obsessive-compulsive disorder or obsessive-compulsive disorder, OCD recognition, OCD symptom presentation, OCD taboo thoughts,* and *symptom misidentification*. These keywords were used solely and in various combinations to yield relevant literature. The sources used in the literature review included both national and international studies. The inclusion criteria included articles written or translated in English and healthcare related. I also utilized references from relevant sources to expand the literature review.

The subsequent sections include a thorough literature review using the described strategies. No previous research was found in the professional literature which focused on counselors accurately diagnosing OCD and recommending ESTs.

Theoretical Background: Medical Model

The medical model involves healthcare professionals diagnosing individuals based on symptomology and using treatments supported by empirical research (Rocca & Anjum, 2020; Shah & Mountain, 2007; Tantawi, 2020; Wampold, 2001). In this present study, I examined the rate and predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs for OCD; therefore, the medical model served as the theoretical support for this study. The following section includes an overview and rationale of the medical model, including the use of diagnosis and ESTs among mental health professionals. Additionally, this section addresses the connection and relevance of the medical model to the counseling profession.

Rocca and Anjum (2020) recognized the influential philosophies and insights that shaped the current medical model. They credited various scholars with influencing the development of the medical model, including Rudolf Virchow, Robert Koch, and Louis Pasteur. The authors noted the evident influences of René Descartes' theory of reductionism, which reinforces that illness is caused by physical issues that can be specifically examined (Rocca & Anjum, 2020).

Huda (2021) noted that when mental health professionals use the medical model, they evaluate patients' presenting problems and recommend specific interventions to mitigate these concerns, which is essential in healthcare. While Huda acknowledged the limitations of the medical model, they contended that by abandoning the model, mental health professionals would jeopardize the clinical value it brings to the profession primarily when used among eclectic approaches by a team of healthcare providers. Huda's assertion supports the medical model as a theoretical framework for the present study, which involves mental health professionals using assessment and treatment recommendations in alignment with the model. Further, Huda's findings support the continued use of the medical model in the mental health field as a justified, accepted framework.

Standardization of the Medical Model

Piotrowski (2023) stated, “As long as there has been health care, there has been a need for some sort of classification system to describe different mental health conditions” (para 11). Mental health disorders have long been categorized in medical model classification systems such as the WHO’s *International Classification of Diseases (ICD)*, a manual first published in the 1900s to label and systematize physical and mental disorders globally across healthcare professions (Piotrowski, 2023). The *ICD-11*, published in 2022, serves as a guide for identifying universal criteria to categorize disorders to promote unity in language among healthcare professionals worldwide (Harrison et al., 2021; WHO, 2022).

The *ICDs*, among other published psychiatric manuals in the early 1900s, greatly influenced the creation of the American Psychiatric Association’s *DSM* first published in 1952 (Piotrowski, 2023; Horwitz, 2021). The *DSM* was developed to categorize mental health disorders according to their presenting symptoms that fulfill specific criteria within those diagnoses. Various versions of the *DSM* have been revised and updated to enhance their reliability, accuracy, and clinical utility (Piotrowski, 2023). Horwitz (2021) considered the *DSM* to be the so-called bible of the mental health field and argued that it is used more universally than the *ICD* (p. 4). The *DSM-5-TR* is fundamental in current diagnosing practices among mental health professionals using the medical model in the United States.

Diagnosis

The initial steps in the medical model are assessing symptoms and forming a diagnosis. According to Horwitz (2021), “Scientific evidence has served as the foundation of psychiatric diagnoses” (p. 6). Horwitz compared mental health professionals using the criteria specified in the *DSM-5*, analogous to how medical doctors run tests and scans for patients with physical complaints. The diagnoses in the *DSM-5* are supported by empirical evidence from the literature and aligned with the medical model.

Craddock and Mynors-Wallis (2014) discussed the importance of diagnosing in healthcare and the advantages and limitations of diagnosis. The authors argued that diagnoses reassure individuals seeking answers for their symptoms as they learn that there are protocols to resolve or improve their issues. Once individuals learn of their diagnoses, they can seek support, additional information, and evidence-based treatment congruent with their disorders (Craddock & Mynors-Wallis, 2014). Lilienfeld et al. (2016) also discussed the benefits of diagnostic classification systems and labeling mental health disorders. They found that in addition to symptom clarity, diagnosis creates a common language among mental health professionals that strengthens the coordination of care (Lilienfeld et al., 2016). Diagnosing is an essential task for healthcare providers that benefits individuals seeking mental health treatment.

Empirically Supported Treatment (EST)

The medical model supports diagnosis as an essential initial step to providing effective treatment. However, effective treatment for one diagnosis might be ineffective for another; therefore, it is crucial to use congruent and research-informed approaches in alignment with an accurate diagnosis (Craddock & Mynors-Wallis, 2014; Hunsley & Mash, 2020). These approaches are often referred to by the terms EBP, EBT, and EST, which were defined in Chapter 1. Cook et al. (2017) discussed the advantages for providers using ESTs, such as reducing potential treatment bias and increasing objectivity. If providers only use treatments they prefer or have successfully used in the past, they are limiting the potential of effective treatment by not consulting evidence-based literature regarding practices (Cook et al., 2017; Stewart & Chambless, 2007). Cook et al. contended that ESTs provide a straightforward, systematic approach to effective treatment planning when providers feel puzzled by complex cases.

Forman et al. (2016) discussed the APA's Chambless Task Force's list of criteria for evaluating ESTs first published in 1995. The list included the APA's identifications of which treatment approaches were empirically supported and their rankings according to efficacy level, determined by criteria that must be met in research practices and outcomes (Forman et al., 2016). In Chambless' (2015) article, they discussed how the APA's guidelines for ESTs have continued to be revised based on the developing and current literature informing clinical practice.

Counselors and the Medical Model

Although counseling has roots in humanistic theories and a robust wellness orientation that separates it from other mental health professions, counselors use the medical model to diagnose and treat their clients (Bergman, 2013; Dougherty, 2005;

Eriksen & Kress, 2006; Hohenshil, 1996; Van Hesteren & Ivey, 1990). According to Horwitz (2021), although the American Psychiatric Association's *DSM* was developed by psychiatric professionals, it is used by counselors to diagnose mental health disorders. Balkin (2018) considered diagnosis and treatment planning fundamental to counseling. Diagnosis offers counselors direction for treatment, better communication with other mental health professionals, and potential client advocacy (Balkin, 2018; Bergman, 2013; Dougherty, 2005). Due to the numerous benefits of diagnosing and treating in alignment with the medical model, counselors use it in their practice.

In Dougherty's (2005) discussion of how counselors can maintain a humanistic approach while using the medical model to diagnose clients, they argued the importance of diagnosis in counseling as referenced in various counseling standards. In the ACA's (2014) *Code of Ethics* section regarding counselors diagnosing, it states, "Counselors take special care to provide proper diagnosis of mental disorders" (p. 11). This statement supports diagnosis as an integral element of counselors' competencies. Dougherty referred to CACREP (2016) standards, which include diagnosis in counseling as a competency for graduate counseling students. CACREP standards indicate that students need to understand diagnosing according to the *DSM* and *ICD* (Section 5.C.2). Another reason counselors diagnose relates to their relationships with third-party reimbursement systems, which often require a billable diagnosis for service reimbursement (Bergman, 2013; Dougherty, 2005; Eriksen & Kress, 2006). Counseling scholars and professionals (Dougherty, 2005; Eriksen & Kress, 2006; Hohenshil, 1996; Vacc et al., 1997; Van

Hesteren & Ivey, 1990) have long contended that for a multitude of reasons, counselors diagnosing clients is an inevitable reality for the current state and future of the field.

The medical model in mental health involves providers diagnosing individuals with mental health disorders and treating them accordingly with ESTs. Standards for counselor training substantiated that the medical model is to be used by counselors. The medical model is relevant and appropriate for the study as this inquiry involves evaluating counselors' abilities to accurately diagnose and recommend OCD-specific ESTs for OCD.

Obsessive-Compulsive Disorder (OCD)

OCD impacts individuals worldwide. Ruscio et al. (2010) examined data from the National Comorbidity Survey Replication and found a 2.3% lifetime prevalence for adults with OCD. Their findings also supported that most individuals seeking OCD treatment have severe symptoms that impact their daily lives (Ruscio et al., 2010). Due to the impact of this disorder, counselors should understand the disorder and effective treatment approaches. The following sections include a description of OCD according to the American Psychiatric Association's (2013) *DSM-5-TR* criteria, as well as the prevalence and impact of the disorder. Additionally, this section addresses the varying subtypes of OCD, including themes characterized as taboo. Lastly, I discuss ESTs for OCD and their efficacy.

Symptomology

OCD is characterized by recurrent intrusive thoughts, referred to as obsessions, followed by repetitive, ritualized behavior, known as compulsions, aimed to decrease distress. Compulsions can be observable behaviors such as cleaning, washing, checking, repeating movements, and seeking reassurance. Alternatively, compulsions can be less apparent, such as mental rituals and avoidance (American Psychiatric Association, 2013). Studies (Foa & Kozak, 1995; Shavitt et al., 2014) have supported that mental compulsions are common among individuals with OCD. Compulsions are time-consuming, anxiety-provoking, and interfere with daily functioning. The *DSM-5* includes specifiers related to insight levels and co-occurring tics (American Psychiatric Association, 2013).

Fullana et al. (2009) found that 21 to 25% of people in their longitudinal study experienced OCD symptoms, such as intrusive thoughts; however, only 2 to 3% met DSM criteria for OCD. The study's conclusions supported the concept that many people experience intrusive thoughts; however, most individuals do not feel compelled to perform repetitive actions to alleviate their distress in response to these thoughts, as do those with OCD. Individuals who do not meet DSM criteria for OCD can practice indifference to their intrusive thoughts and continue functioning, unlike those with OCD, who experience significant distress until they perform a compulsion (Sloan, 2022).

Hezel and Simpson (2019) attributed Mowrer's (1939) early findings regarding anxiety responses as foundational for understanding OCD's symptomology. Mowrer used classical and operant conditioning theories as frameworks for understanding individuals' anxiety triggers and responses. Mowrer discussed how compulsive and avoidant behaviors reinforce individuals' obsessional beliefs which causes OCD symptoms to exacerbate over time the more individuals engage in these unhelpful responses. Mowrer's early conclusions provide support for how OCD symptoms worsen when they are untreated.

Prevalence and Impact

The typical symptom onset for OCD is late adolescence to early adulthood, with men having an earlier reported onset of symptoms (Sassano-Higgins & Palto, 2015; Sloan, 2022). Untreated OCD symptoms develop gradually and continuously throughout life (Pinto et al., 2006). According to Ruscio et al. (2010), data from the National Comorbidity Survey Replication indicated that the lifetime prevalence rate of OCD among adults is 2.3%, with over half of adults ranging in the 'serious' category of symptom severity. While OCD is not among the most prevalent disorders, it can be highly impactful and debilitating (Moritz et al., 2005; Pinto et al., 2006; Sloan, 2022; Subramaniam et al., 2012).

Researchers (Hollander et al., 1998; Moritz et al., 2005; Sharma & Math, 2019) have explored quality of life (QOL) ratings among individuals with OCD and found that QOL is significantly lower in individuals with OCD who are not receiving treatment. Hollander et al. found that over 50% of their study's sample reported OCD significantly impacting role functioning, such as social, vocational, and academic roles. Pinto et al.'s

(2006) longitudinal study with a large community sample supported that 18% of individuals with OCD receive disability income due to the severity of the disorder's symptoms. Researchers (Benatti et al., 2021; Krebs et al., 2021; Meier et al., 2016; Pellegrini et al., 2020) found that compared to the general population, individuals with OCD are at a higher risk of suicide and have high premature mortality rates due to the impact of the disorder. These studies support the evident significant impact of OCD on individuals.

Subtypes

OCD differs in the presentation of symptoms, referred to as OCD subtypes. OCD subtypes commonly include themes related to harm, contamination, order or symmetry, health, sexuality, morality, or religion (Sloan, 2022). For example, an individual with the contamination OCD subtype likely is fearful regarding germs and avoids contact with anything they perceive to have germs. Washing and cleaning compulsions are commonly associated with obsessions regarding germs (Feinstein et al., 2003; Williams et al., 2013). Hunt (2020) reviewed existing data to determine how OCD subtypes and symptoms varied among individuals (*n*= 9,404) of differing backgrounds and global regions. They concluded that, generally, OCD subtypes present similarly among various cultural regions, age ranges, and genders (Hunt, 2020). The study is important as it supports the collective and consistent symptomology of OCD worldwide.

Taboo

The OCD subtypes involving harm, sexual, or religious themes are often characterized as ‘taboo’ subtypes by researchers due to their content (Bloch et al., 2008; Brakoulias et al., 2013; Pinto et al., 2007; 2008; Williams et al., 2013). The harm subtype of OCD involves the fear of impulsively or unintentionally causing harm to oneself or others (Feinstein et al., 2003; Pinto et al., 2008). The sexual OCD subtype typically includes anxiety related to one’s feared sexual attractions or taboo sexual thoughts. For example, individuals may fear being sexually attracted to children, animals, family members, or people in conflict with their sexual orientation (Gordon, 2002; Williams, 2008; Williams et al., 2013). The religious subtype often includes fear of sinning, disobeying God, or excessive fears about going to Hell.

Many taboo obsessions are followed by behavioral and mental compulsions such as avoidance, reassurance seeking, confession, praying, and somatic checking (Leckman & Grice, 1997; Abramowitz et al., 2003). OCD, often called the “doubting disease,” creates tremendous discomfort for the individual when they cannot gain certainty about their worries (Gordon, 2002, p. 348). As these abstract and taboo concepts that create doubt cannot be disproven entirely, the individual with OCD agonizes in uncertainty with little relief (Gordon, 2002; Williams et al., 2013).

Obsessions are ego-dystonic and often strongly resisted by individuals with OCD. Consequently, when symptoms focus on taboo concepts, such as sexual, harmful, or religious-related fears, the distress is significant (Williams et al., 2013). Studies

(Besiriglu et al., 2010; Cathey & Wetterneck, 2013; Durna et al., 2019; García-Soriano & Roncero, 2017; McCarty et al., 2017; Simonds & Thorpe, 2003) have supported the conclusion that taboo subtypes are highly stigmatized and misunderstood by the public. Durna et al. (2019) found that sexual and harm subtypes of OCD were stigmatized at higher rates than non-taboo subtypes, such as the contamination subtype, and held similar public stigma rates as schizophrenia. Researchers (Akyurek et al., 2019; Durna et al., 2019; Glazier et al., 2015b; McCarty et al., 2017) have found that stigma associated with OCD contributed to individuals' shame and reluctance to seek treatment.

Recent studies (Cervin et al., 2022; Krebs et al., 2021) have also concluded that individuals with taboo subtypes are at higher risk of attempting suicide compared to individuals with non-taboo subtypes. Many studies have evidenced that taboo OCD subtypes are misdiagnosed and treated with non-ESTs at higher rates than non-taboo subtypes (Glazier & McGinn, 2015; Glazier, 2013; Gouniai et al., 2022a, 2022b; Perez et al., 2022). Due to the impacting nature of taboo OCD subtypes, which are highly distressing, misunderstood, and pose a greater risk to well-being than non-taboo OCD subtypes, counselors must be able to accurately diagnose and treat them appropriately.

OCD-Specific ESTs

The APA's SCP Division 12 (2022) has identified three ESTs for OCD, which include (a) ERP for OCD, (b) CBT for OCD, and (c) ACT for OCD. According to the APA's SCP Division 12 (2022), the strength of empirical support for ERP is strong, in line with the 1998 and 2015 research review criteria. Secondly, CBT was identified as having strong empirical support according to the 1998 criteria; however, the 2015 empirical review status is pending revaluation. Lastly, ACT was listed by the APA's SCP Division 12 (2022) as having modest support.

ERP and CBT

While the APA's SCP Division 12 (2022) identified both CBT and ERP as ESTs for OCD, substantial research has long supported ERP, as a type of CBT, as the most effective, non-pharmacological EST for OCD (Hill & Beamish, 2007; Janardhan Reddy et al., 2007; Lack, 2012; Olatunji et al., 2013; Öst et al., 2015; Rosa-Alcázar et al., 2008; Sassano-Higgins & Palto, 2015; Skapinakis et al., 2021; Sloan, 2022; Van Niekerk, 2018). A recent systematic review and meta-analysis by Song et al. (2022) concluded that the effect of ERP on OCD symptoms was significant compared to placebo or medication trials. Studies (Hollander et al., 1998; Jensen et al., 2022; Moritz et al., 2005) have also measured QOL scores before and after treatment and found that QOL scores increase among participants with OCD following treatment. Researchers (Gordon, 2002; Williams et al., 2013) have concluded that ERP is effective across varying subtypes of OCD, including distressing, taboo themes.

ERP, also often referred to as exposure therapy, has evident behavioral foundations, such as classical conditioning theory, as the treatment involves the therapist gradually exposing individuals to their OCD triggers for intrusive thoughts and encouraging them not to engage in ritualized compulsions in response to their distress. ERP aims to (a) invalidate feared consequences of obsessions, (b) achieve elimination of learned responses to obsessions, and (c) build a tolerance to distress and uncertainty (Foa & McLean, 2016; Hezel & Simpson, 2019; Sloan, 2022).

Researchers (Foa & McLean, 2016; Hezel & Simpson, 2019) discussed the behavioral underpinnings of ERP as rooted in Mowrer's (1939) early findings regarding the reinforcement of anxiety through conditioned responses. Additionally, Meyer's (1966) conclusions regarding altering behavioral responses to anxiety influenced the development of exposure therapy. Edna Foa's subsequent research (Foa & Goldstein's, 1978; Foa & Kozak, 1985, 1986; Foa et al., 1984, 1992, 2012) further developed the behavioral concepts of what is now practiced as ERP. While ERP has strong underpinnings in specific behavioral theories, it is considered a specialized therapy within a CBT approach (Foa, 2010; Foa & Franklin, 2000).

According to the APA's SCP Division 12 (2022), CBT as an EST for OCD, involves challenging individuals' beliefs to encourage more adaptive behaviors. Further, the APA's SCP Division 12 (2022) included an ERP approach in their description of CBT for OCD. As the research and the APA's SCP Division 12 (2022) have suggested, ERP, a type of CBT, is among the most empirically supported approaches for treating OCD.

ACT

The APA's SCP Division 12 (2022) identified ACT as having modest empirical support in accordance with Chambless and Hollon's (1998) recommendations for ESTs. Rooted in relational frame theory, ACT emphasizes acceptance, mindfulness, and values identification to increase adaptive behaviors and decrease compulsive or avoidant behaviors (APA SCP Division 12, 2022; Hezel & Simpson, 2019; Twohig et al., 2010; Van Niekerk, 2018). Research (Hezel & Simpson, 2019; Van Niekerk, 2018) has supported ACT as an adjunctive EST to ERP to enhance individuals' acceptance of symptoms and participation in exposures.

The distressing and time-consuming symptoms of OCD are highly impactful for individuals diagnosed with the disorder. Unfortunately, distress is increased for those experiencing taboo subtypes. Studies in this section have supported that treatment helps reduce OCD impact and improve individuals' quality of life. While other ESTs were acknowledged as helpful approaches for OCD, ERP, often referred to as exposure therapy, remains the most evidence-based and effective treatment for OCD. The articles in this section support the study's aim to examine counselors' abilities to accurately diagnose OCD, including taboo subtypes, and recommend OCD-specific ESTs, such as ERP. Due to the highly distressing and impactful nature of OCD, counselors must possess the skills necessary to serve the OCD community effectively.

Concerns with Professionals Diagnosing and Treating OCD

Almost a quarter century ago, researchers Spengler and Jacobi (1998) and Hollander et al. (1998) identified the misdiagnosis and mistreatment of OCD as a significant concern to the mental health field. Since then, mental health professionals have continued to misdiagnose OCD and use non-EST interventions (Patel et al., 2022; Senter et al., 2021; Stahnke, 2021). Taboo subtypes are among the most misrecognized

OCD subtypes (Glazier et al., 2013, 2015; Gouniai et al., 2022a, 2022b; Perez et al., 2022). This is concerning due to the impact of OCD, especially with taboo subtypes. In the subsequent sections, I discuss studies examining the misdiagnosis and mistreatment of OCD among healthcare professionals. Additionally, I address why it is essential for counselors to accurately diagnose OCD and recommend OCD-specific ESTs.

Misdiagnosis and Non-ESTs for OCD

Researchers (Hollander et al., 1998; Pinto et al., 2006; Senter et al., 2021; Sloan, 2022) have concluded that there is a significant gap, estimated up to 17 years, between individuals' onset of OCD symptoms and treatment. Studies (Marques et al., 2010; Senter et al., 2021) have supported that, among other predictors, professionals' lack of understanding of diagnosing and treating OCD contributed to this delay. Consequently, numerous researchers have examined the rates of misdiagnosis and non-OCD-specific ESTs for OCD among differing professions, mental health settings, and global regions (Patel et al., 2022; Senter et al., 2021; Stahnke, 2021). For instance, Stahnke's (2021) systematic review of seven studies regarding OCD misdiagnosis supported that providers of varying healthcare backgrounds and global regions frequently misdiagnose OCD. Stahnke advocated for further research regarding OCD misdiagnosis to discover factors associated with the phenomenon.

Mental Health Professionals

Glazier and McGinn (2015) examined doctoral psychology students' accuracy in diagnosing OCD through case vignettes. They found that the misdiagnosis rate of OCD among students was between 17% and 33%. Taboo subtypes were eight times more likely to be misdiagnosed by doctoral-level psychology students than the other OCD subtypes. Glazier and McGinn's study supported that psychology students training to be mental health professionals are among those who misdiagnose OCD.

Glazier et al. (2013) surveyed mental health professionals with clinical case vignettes depicting OCD symptomology. Participants, primarily psychologists, were asked to give the vignette subject a mental health diagnosis. Out of the five vignettes randomly assigned to participants in the study, four depicted taboo OCD subtypes (harm, religious, sexual-homosexual, and sexual-pedophilic), and one included a non-taboo theme (contamination) as a control. Glazier et al. found a 38.9% misdiagnosis rate of OCD across all subtypes. Misdiagnosis rates increased significantly for taboo themes at 44.7% compared to the contamination theme at 15.8%. Overall, participants were 99.7% less likely to accurately diagnose OCD in the taboo subtypes than the non-taboo subtype, with the sexual subtype misdiagnosed most frequently. Glazier et al. concluded that the vignette type and mental health professionals' theoretical orientation were the most significant predictors of misdiagnosis rates. While CBT-oriented mental health professionals were more likely to diagnose OCD accurately, 31.5% still misdiagnosed OCD (Glazier et al., 2013).

Stanley et al. (2017) examined the experiences of mental health professionals treating OCD in Veterans Health Administration settings. They surveyed psychologists, psychiatrists, and social workers and found concerns regarding their assessment and treatment of OCD. Most mental health professionals reported having self-confidence in diagnosing and treating OCD, but less than half reported working with patients diagnosed with OCD and only 10% reported currently working with patients diagnosed with OCD. Comparing these rates with OCD prevalence, Stanley et al. suspected that mental health professionals likely did not recognize OCD among their patients. When OCD was diagnosed, only 47% of participants recommended ERP for treatment.

Mental health professionals misdiagnosing OCD also occurs outside of the United States. Wahl et al. (2010) found that over 70% of individuals treated at 14 mental health centers in Germany who met *DSM-IV* criteria for OCD were not accurately diagnosed and treated with ESTs. Perez et al. (2022) used Glazier et al.'s (2015) case vignettes to study misdiagnosis rates and treatment recommendations for OCD among mental health professionals in Latin American regions. Perez et al. found that mental health professionals misdiagnosed taboo subtypes at higher rates than non-taboo. For instance, half of the participants misdiagnosed sexual OCD, with many of them identifying it as a paraphilic disorder. Similarly, 42% of mental health professionals misdiagnosed the harm subtype, and 35% misdiagnosed the religious subtype. Mental health professionals' years of experience and theoretical orientation were not correlated to the accuracy of diagnosing. Perez et al. found that accurate diagnosis increased the likelihood of recommending CBT among participants; however, while CBT was often recommended, ERP was rarely suggested by mental health professionals.

Various descriptive and case studies have supported misdiagnosis and non-OCD-specific ESTs for OCD among mental health professionals. Porth and Geller (2018) described the experiences of 24 children and adolescents with atypical presentations of OCD who were misdiagnosed in their qualitative study. Similarly, Rohanachandra and Vipulanandan's (2019) case study described a 13-year-old male adolescent with unique OCD symptoms that providers did not easily recognize, therefore, easily misdiagnosed. Both studies presented cases where children with atypical presentations of OCD, including specific sensory components, were misdiagnosed by mental health professionals.

Maršanić et al.'s (2011) case study focused on a 17-year-old female adolescent with unusual OCD symptoms. The adolescent was misdiagnosed with psychosis by her provider and treated with antipsychotics accordingly. Once the individual was diagnosed with OCD, she was treated appropriately, and symptoms significantly decreased. Similarly, Leung and Palmer (2016) described the experiences of a male adult with harm and sexual sub-types of OCD who was misdiagnosed with psychosis by a healthcare provider and treated with antipsychotics. The authors found that when the individual was treated with anti-psychotics due to the misdiagnosis of psychosis instead of OCD, his symptoms worsened significantly. Both case studies supported the negative consequences of treating OCD with antipsychotics primarily, a non-EST approach, and argued for the importance of accurately diagnosing OCD.

Non-Mental Health Professionals

Misdiagnosis and recommendation of non-ESTs are also common among non-mental health providers. Glazier et al. (2015) focused on misdiagnosis rates and recommendations for treatment among physicians in primary care settings, using similar clinical case vignettes from the Glazier et al. (2013) study that included taboo and nontaboo themes. Glazier et al. (2015) found that approximately half of the physicians misdiagnosed OCD, with taboo subtypes misdiagnosed at significantly higher rates. Physicians who correctly diagnosed OCD were more likely to recommend an EST, such as CBT, for OCD. Many physicians who incorrectly diagnosed recommended non-ESTs, such as antipsychotic medications (non-adjunctive) and psychodynamic approaches (Glazier et al., 2015). Consequently, Glazier et al. (2015) concluded that accurately diagnosing OCD was a predictor for recommending OCD-specific ESTs.

Sharma and Mazmanian (2021) summarized the literature regarding the misdiagnosis of women experiencing a peripartum or post-partum onset of OCD, which is commonly unrecognized by healthcare providers. A typical presentation of peripartum and post-partum OCD includes intrusive thoughts regarding hurting their children (Challacombe & Wroe, 2013; Sharma & Mazmanian, 2021). Challacombe and Wroe (2013) described their experiences working with women whose OCD symptoms were not accurately recognized by their healthcare providers. The women were subsequently reported to child protective services and had limited access to their newborn children, which heightened their symptoms (Challacombe & Wroe, 2013).

Gouniai et al.'s (2022b) Guam-based study used Glazier et al.'s (2013, 2015) case vignettes and found that over half of medical providers did not recognize OCD overall, with taboo subtypes being the most misinterpreted among participants. Only 15% of participants correctly identified a vignette depicting a pedophilic-themed sexual subtype as OCD compared to the 83.3% correctly identified contamination-themed OCD. Gouniai et al. (2022a) also studied clergy members' recognition of OCD in Guam. They found that two-thirds of the participants did not identify OCD as a potential diagnosis for the case vignette subject and that their recognition of OCD decreased among taboo subtypes. Most clergy members recommended faith-based interventions, such as pastoral counseling and referrals to other clergy members, as the most effective recommendation for the subjects of the OCD vignettes, even when they correctly identified OCD as the primary issue (Gouniai et al., 2022a).

Do Accurate Diagnoses Inform ESTs?

While accurately diagnosing OCD increased providers' OCD-specific EST recommendations in some of the studies discussed (Glaziet et al., 2015; Perez et al., 2022), a substantial body of research (Hipol & Deacon, 2012; Deacon & Farrell, 2013; Goldfried et al., 2013; Gunter & Whittal, 2010; Marques et al., 2010; Schwartz et al., 2013; Stanley et al., 2017; Whiteside et al., 2016; Wolitzky-Taylor et al., 2015) has supported that most clinicians failed to recommend OCD-specific ESTs, even when they accurate diagnosed the symptoms. Wolitzky-Taylor et al. (2015) reviewed medical records at a large community mental health center to determine how many individuals received ESTs for their anxiety disorders, including OCD. Less than 8% of individuals with a primary diagnosis of an anxiety disorder received treatment that included exposure. Most individuals were offered supportive therapy, a non-OCD-specific EST (Wolitzky-Taylor et al., 2015).

Hipol and Deacon (2012) examined how many mental health professionals used the correct ESTs for anxiety disorders, including OCD, in a rural community sample. Mental health professionals reported using CBT; however, most did not use ERP. The most common techniques reported by participants were cognitive restructuring (93.9%), mindfulness techniques (75.8%), and progressive relaxation (75.8%). Those who did use ERP reported integrating adjunctive approaches that lacked empirical support (Hipol & Deacon, 2012).

Whiteside et al. (2016) examined the rate at which mental health professionals used exposure therapy with pediatric OCD cases and found that only 5% of mental health professionals used exposure as a primary approach with children who had OCD. In line with various studies (Hipol & Deacon, 2012; Perez et al., 2022; Whiteside et al., 2016), many mental health professionals recommend a CBT approach for OCD yet rarely included exposures in their treatment. These researchers have argued that CBT alone, without exposures, is insufficient for treating OCD.

Importance of Counselors Accurately Diagnosing and Treating OCD

Early treatment intervention for OCD has long been advocated for by researchers (Fineberg et al., 2019; Stengler et al., 2007). Further, individuals with OCD often delay seeking treatment; therefore, their symptoms are often severe by the time they begin counseling (Belloch et al., 2009; García-Soriano et al., 2014). Mayerovitch et al. (2003) concluded that among OCD subtypes, the harm theme is one of the most common for seeking treatment. Consequently, counselors must recognize individuals' OCD symptoms, including taboo subtypes, and treat them accordingly so that individuals can experience relief.

Consequences of Misdiagnosis

Misdiagnosing an individual with OCD with another disorder has consequences, as treatments can be contraindicated. For example, there are overlapping symptoms between OCD and psychotic disorders, such as schizophrenia, which increases the likelihood of misdiagnosis (Bürgy, 2007; Rasmussen & Parnas, 2022). As supported by case studies discussed earlier (Leung & Palmer, 2016; Maršanić et al., 2011), when OCD is misdiagnosed as psychosis, the consequences are harmful. Abramovitch et al. (2013) found various overlapping symptoms between OCD and attention-deficit/hyperactivity disorder, a neurodevelopmental disorder often medically treated with stimulant prescriptions. Abramovitch et al. noted that if OCD is misdiagnosed and treated with stimulants, symptoms will likely intensify.

The consequences of misdiagnosis and ineffective treatments for OCD can also be damaging for individuals, especially those with taboo subtypes. Researchers (Bruce et al., 2018; Bonagura et al., 2022; Gadit, 2012; Gordon, 2002; Grant, 2019; Vella-Zarb et al., 2017) have discussed the risks for individuals with sexual OCD subtypes being misdiagnosed with paraphilias. Individuals with the pedophilic thought content of their sexual OCD may be inappropriately labeled as a pedophile and reported to the legal system, even though these individuals do not feel pleasure from these thoughts nor do they intend to act on them (Bruce et al., 2018; Bonagura et al., 2022; Gadit, 2012; Gordon, 2002; Grant, 2019; Vella-Zarb et al., 2017).

Similarly, the studies mentioned earlier (Challacombe & Wroe, 2013; Sharma & Mazmanian, 2021) focused on the risks for new or pregnant mothers with a harm OCD subtype being misinterpreted by providers and reported to authorities. In Storch's (2015) discussion about OCD misdiagnosis, they emphasized the importance of providers recognizing harm subtypes in post-partum OCD onset and advocated for increased provider knowledge of OCD. Due to the potential legal and distressing consequences of OCD misdiagnosis, especially among taboo themes, it is necessary that counselors accurately diagnose and treat OCD.

Why Counselors?

While counselors occupy essential roles in the mental health field, they are commonly excluded or significantly underrepresented in diagnosing and treating OCD studies. In Hill and Beamish's (2007) standards of care review for counselors treating OCD, they discussed that research regarding OCD assessment and treatment specific to counselors is lacking. The authors asserted that historically, OCD assessment and treatment research had been facilitated within the psychiatric or psychological domains. Hill and Beamish advocated for additional research regarding counselors diagnosing and treating OCD with ERP. Stahnke (2021) also discussed how most studies regarding OCD misdiagnoses examined doctoral-level mental health professionals, such as psychologists.

In many of the studies (Glazier et al., 2013, 2015; Stanley et al., 2017) discussed that focused on OCD misdiagnosis among mental health professionals, counselors were not explicitly identified or excluded from the sample. In Perez et al.'s (2022) study, less than 8% of mental health professionals in the sample were counselors. Similarly, in the studies (Hipol & Deacon, 2012; Whiteside et al., 2016) that examined concerns with ESTs for OCD, counselors were marginally included in the sample compared to other mental health professions. A recent study by Kogan et al. (2020) focused on how mental health professionals diagnose OCD using *ICD-11* guidelines and only included 6.1% of the English-speaking mental health professional sample as counselors (Kogan et al., 2020). Hill and Beamish's (2007) assertions that research regarding OCD assessment and treatment specific to counselors was lacking were made over a decade ago. There remains a lack of research regarding counselors diagnosing and treating OCD. The literature search strategy used found no research study focused on the accuracy of OCD diagnosis and OCD-specific EST recommendations with solely counselors as the population of interest.

There is substantial empirical support that OCD is commonly misdiagnosed and ineffectively treated by mental health professionals, especially among the taboo subtypes. This disorder can be debilitating for individuals and damaging if it is misinterpreted, so accurate diagnosing and EST practices among professionals are paramount.

Unfortunately, many studies on this topic did not include counselors in their samples. As counselors are contributing providers within the mental health field, they should be included in studies investigating the diagnosis and treatment of OCD to improve their practice.

Summary and Conclusion

Counselors following the medical model diagnose and treat individuals with mental health disorders. Due to the impact of OCD and the consequences of its misdiagnosis, it is essential that counselors understand how to diagnose and treat it accurately. There is extensive empirical support that OCD is commonly misdiagnosed and ineffectively treated by mental health professionals among other providers. Yet, little is known about counselors' abilities to diagnose and treat OCD, as they have been underrepresented in relevant studies and have not been studied exclusively regarding these concerns. The study addressed the gap in the existing literature regarding counselors' abilities to accurately diagnose OCD and recommend OCD-specific ESTs for OCD.

Chapter 3: Research Method

Introduction

Research has substantially supported that individuals with OCD are often misdiagnosed and treated with non-OCD-specific ESTs However, the rates of counselors accurately diagnosing OCD and recommending OCD-specific ESTs for OCD are unclear as they have been excluded or underrepresented in relevant studies. Additionally, predictors for predicting mental health professionals accurately diagnosing OCD and recommending OCD-specific ESTs have varied. Given that OCD is a prevalent and impacting disorder, additional research regarding diagnosis and treatment is warranted.

In this study, I used survey methods to examine the rates and predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs for OCD. Counselors licensed to practice independently in the United States participated in a clinical case vignette-based survey regarding the diagnosis and treatment recommendations of the case vignette subject. The instruments used in this study were adapted from the Glazier et al. (2013, 2015) case vignette studies regarding OCD misdiagnosis among healthcare and mental health professionals. A demographic questionnaire for descriptive information was also included. In this chapter, I address the study's specific research design, methods, approaches, and considerations.

Research Design and Rationale

In this quantitative study, I examined rates and predictors for counselors accurately diagnosing OCD and recommending OCD-specific ESTs for OCD. The predictor variables in this study were (a) OCD subtype, (b) counselor theoretical orientation, (c) counselor years of experience, and (d) counselor clinical specialty. The dependent variables were accurate diagnosis and OCD-specific EST recommendations. This study included a non-experimental descriptive and correlational survey research design, selected due to similar methods used in relevant studies, such as Glazier et al. (2013, 2015). The design supported the nature of the research inquiry, which was descriptive, examining rates (RQ1 and RQ3) and correlational, identifying predictors (RQ2 and RQ4). I used an online survey method to reach out to numerous participants as online-based surveys increase the feasibility for researchers (see Groves et al., 2009). However, compiling a database of participant emails for recruitment was a time constraint associated with the research design selection.

Both quantitative and qualitative studies have contributed to the body of research regarding OCD misdiagnosis and treatment concerns. Many of the studies (Glazier et al., 2013, 2015; Glazier & McGinn, 2015; Gouniai et al., 2022a; Perez et al., 2022) that focused on rates and predictors of misdiagnosis have been quantitative. Specifically, most have been descriptive and correlational to identify rates and predictors of misdiagnosis. Congruent with these studies, this study included a similar methodology to examine rates and predictors for counselors accurately diagnosing OCD and recommending OCD-specific ESTs for OCD.

Research Methodology

Population

The target population in this study was counselors licensed to practice independently in the United States to examine rates and predictors for counselors accurately diagnosing OCD and recommending OCD-specific ESTs. Counselors licensed to practice independently through their state counseling boards have skills to diagnose and treat without clinical supervision, as defined in Chapter 1. The current population size of counselors in the United States is unknown; however, the ACA estimated there were over 162,130 counselors in the United States in 2011 (ACA-Center for Counseling Practice, Policy & Research, 2016).

Sampling and Sampling Procedures

I used purposeful sampling for my study to recruit participants. By using an internet survey, I reached out to numerous counselors in a short period of time. Limits of this type of sampling method included potential threats to external validity as the studies may lack generalizability (Warner, 2013). Additionally, internet-based surveys often have lower response rates than other methods (Groves et al., 2009).

I recruited participants through email after I identified potential participants through Psychology Today's provider directory using the 'Popular Cities' feature. Psychology Today is a popular magazine and website that includes a directory for mental health providers throughout the United States. I found participants' emails through their professional websites advertised in Psychology Today's directory. Participants contacted by email received a link directing them to the study. Links to complete the study were also posted for participation on (a) professional counseling organization's member forums and ListServs, such as the ACA and the Counselor Education and Supervision Network Listserv, (b) Walden University's participant pool for mental health providers, and (c) social media networks, such as Facebook counseling groups and LinkedIn counseling groups. Counselors were informed to only participate in the study once to prevent duplicate data.

Participants must have met eligibility criteria to be included in the study sample. Inclusion criteria for the sampling frame included participants being (a) 18 years old or older and (b) a counselor with an active counseling license to practice independently in at least one U.S. state. Participants were excluded from the study if they were (a) licensed outside of the United States, (b) had an inactive counseling license, (c) not licensed to practice independently (e.g., counselor trainees/assistants, dependently licensed), (d) held a professional license of another field (e.g., psychology, social work).

Power Analysis

I used G*Power (Version 3.1.9.6; see Faul et al., 2007) a priori power analysis with a one-tailed, z-test for logistic regression to calculate the minimum sample size required for this study. The margin of error was 5% margin of error and power was set to 80%. The remaining values were determined using the Glazier et al. (2013) findings to calculate values required by G*Power (Version 3.1.9.6). Given the lack of empirical support regarding the relationship among the predictor variables, an r-squared value of .1

was included in the analysis as recommended in the G*Power 3.1 manual (Buchner et al., 2023; Appendix A). The minimum necessary sample size calculated by G*Power (Version 3.1.9.6) resulted in a sample size of 121 participants.

Procedures for Recruitment, Participation, and Data Collection

Recruitment

I recruited participants through email and by posting an invitation to complete the study on online forums. Counselors' professional websites, which included their emails, were obtained through Psychology Today using the 'Popular Cities' browsing feature. An invitation to complete the study was posted for participation on (a) professional counseling organization's member forums and ListServs, (b) Walden University's participant pool for mental health providers, and (c) social media networks. Participants who received an invitation by email or forum were provided a brief description of the study's purpose, information regarding informed consent, and the researcher's and committee chair's contact information. Participants were informed of the eligibility criteria for the study. Participants were directed to only complete the survey once and asked to forward the study to other counselors licensed to practice independently.

Participation

Participants had to have an active, counseling license to practice independently in at least one U.S. state and be able to provide informed consent to have participated in the study. Participants were asked if they met the eligibility criteria for the study. The survey ended if participants indicated that they did not meet all eligibility criteria by selecting *No* as a response. If participants indicated they did meet all eligibility criteria by selecting *Yes*, they were directed to the survey questions to complete the study.

Data Collection

The participants whom I contacted by email received an invitation to participate in the study from my Walden University email address. I also recruited participants through forum posts, as discussed. Emails and forum posts included (a) a brief description of the study's purpose, (b) informed consent, (c) researcher and committee chair contact information, and (d) a link to participate in the survey on Qualtrics. The email and post also included a reminder to complete the survey once and an option to share the link with other counselors licensed to practice independently Once the survey was completed, participants were thanked and exited from the survey.

There were no debriefing procedures for this study. I eliminated follow-up procedures for the study which I discuss in Chapter 4. Depending on the web page's forum community guidelines, forum posts I posted intermittently to recruit as many participants as possible.

Pilot Study

I conducted a pilot study before participants were recruited for the study. Pilot studies are used to test the instruments, data collection, and analysis of the study before conducting it with the sample. Pilot studies are used by researchers to understand limitations so that they can be improved before conducting the formal study (Hassan, 2006). The pilot study included (a) eligibility questions, (b) a demographic questionnaire,

(c) one of five case vignettes from Glazier et al.'s (2013) case vignette instrument, and (d) items regarding diagnosis and EST recommendations from Glazier et al.'s (2013, 2015) response instruments. Connelly (2008) discussed empirical support for researchers using 10% of their intended study sample size for a pilot study. For my study, there were 12 participants. The pilot study participants were friends and family. The participants were not required to meet the full eligibility criteria for the pilot study.

Instrumentation and Operationalization of Constructs

Instruments

My study included three instruments from the Glazier et al. (2013, 2015) studies regarding OCD misdiagnosis (Appendices C-E). The case vignettes used in my study were created by Glazier et al. (2013) to assess mental health professionals' abilities to accurately diagnose OCD. The vignettes included one symptom presentation of contamination-oriented OCD and four vignettes that depicted taboo subtypes. The four taboo OCD subtype vignettes included themes related to harm, religion, homosexuality, and pedophilia. The demographic information regarding the case vignette subject was the same throughout the vignettes to limit content bias, excluding the age of the case subject (Glazier et al., 2013). If participants in the Glazier et al. (2013) study indicated that they primarily worked with children, the vignette subject was depicted as an adolescent male instead of a middle-aged male for participants who work with adults (Appendix C).

Each of the Glazier et al. (2013) vignettes included five sentences or less regarding the case vignette subject's symptoms. The vignettes align with a 10th-grade level using the Coleman-Liau Index. Five experts reviewed the vignettes to validate their content and depiction of OCD. The experts who reviewed the vignettes were clinicians and researchers with professional experience treating OCD at the Center for OCD and Related Disorders at the New York State Psychiatric Institute, Columbia University (Glazier et al., 2013).

In the Glazier et al. (2013) study, participants were asked to share responses about which diagnoses best fit the case vignette subject. If participants indicated more than one diagnosis, they were asked to rank them in the likelihood of the subject having the diagnosis. The instrument "Survey Participants' Diagnostic Impressions of Patient in Vignette" was created for the study to measure participants' responses, which encompassed 36 potential response options, including clinical diagnoses, non-clinical diagnoses, and other (Glazier et al., 2013 p. 206; Appendix D).

This study included the second portion of the "Vignette-Based Questions" instrument created by Glazier et al. (2015) to assess physicians' abilities to recommend OCD-specific ESTs for first-line treatment. Glazier et al. (2015) used similar case vignettes from the Glazier et al. (2013) study with additional vignettes depicting other subtypes of OCD. After reading the vignettes, participants were asked to select the most appropriate diagnosis and a first-line treatment recommendation for the vignette subject. I used the second portion of the instrument regarding which first-line treatment participants recommend, as the Glazier et al. (2013) case vignettes and diagnosis response instrument were used (Appendix E).

The five case vignettes, “Survey Participants’ Diagnostic Impressions of Patient in Vignette” and “Vignette-Based Questions” developed by Glazier et al. (2013, 2015), were used in my study to examine rates and predictors for counselors accurately diagnosing OCD and recommending OCD-specific ESTs (Appendices C-E). The instruments were designed for online survey-based studies with healthcare and mental health professionals; therefore, they aligned with my methodology, which included an online survey-based study with counselors. Permission to use these instruments was granted by Kimberly Glazier Leonte, the lead researcher in the Glazier et al. (2013, 2015) studies. (K. Glazier Leonte, personal communication, May 15, 2023; Appendix B).

Adaption of Instruments

This study included minor adaptions of the Glazier et al. (2013, 2015) instruments discussed. The first adaption was the combination of instruments used together. This included the addition of Glazier et al.’s (2015) “Vignette-Based Questions” used with Glazier et al.’s (2013) five case vignettes, “Survey Participants’ Diagnostic Impressions of Patient in Vignette.” As both studies assessed healthcare professionals’ abilities to assess OCD, they were used together to examine rates and predictors for counselors accurately diagnosing OCD and recommending OCD-specific ESTs.

Glazier et al. (2015) considered a correct treatment recommendation from physicians to include CBT and a selective serotonin reuptake inhibitor treatment approach. The second adaption did not include the medication options in Glazier et al.’s (2015) “Vignette-Based Questions” instrument. Counselors typically do not prescribe medications as physicians do; therefore, I removed this response item category for relevance to my study's population.

Operationalization

I defined the variables used in this study in Chapter 1 and discussed their operationalization in my study. The predictor variables in this study are (a) OCD subtype, (b) counselor theoretical orientation, (c) counselor years of experience, and (d) counselor clinical specialty. The variables OCD subtype, counselor theoretical orientation, and counselor clinical specialty are nominal scales of measurement that were measured in the demographic questions. The demographic questionnaire also measured counselors' years of experience, which is an ordinal variable.

The dependent variables in my study were accurate diagnosis and OCD-specific EST recommendations, both of which are dichotomous, nominal measurement scales. If participants selected OCD as a diagnosis response on the Glazier et al. (2013) instrument, I considered the response an accurate diagnosis. Like the Glazier et al. (2013) study, if participants selected multiple diagnoses that included OCD, their response was also considered accurate. A non-accurate diagnosis included responses that did not indicate OCD as a potential diagnosis.

OCD-specific EST recommendations were determined by participants selecting exposure therapy, CBT, or ACT as an EST recommendation on the Glazier et al. (2015) instrument. Although research has favored ERP or exposure therapy as a first-line treatment approach, exposure therapy, CBT, and ACT were considered OCD-specific

EST recommendations in accordance with the APA's SCP Division 12 (2022). If participants selected multiple treatments, I considered their response an OCD-specific EST recommendation if it included at least one of the identified OCD-specific ESTs. A non-OCD-specific EST recommendation was any response that did not include exposure therapy, CBT, or ACT.

Demographics

I created a demographic instrument for this study based on previous research by Glazier et al. (2013, 2015). The demographic instrument included survey questions relevant to this study. These questions include (a) age, (b) gender, (c) ethnicity, (d) education level (e.g., master's, doctoral), (e) counselor years of experience, (f) counselor theoretical orientation, and (g) counselor clinical specialty (See Appendix G).

Data Analysis Plan

This study used The Statistical Package for Social Science (SPSS, Version 28) software to analyze the data regarding the following research questions and hypotheses:

Research Question 1 (RQ1): What is the rate of counselors accurately diagnosing obsessive-compulsive disorder across varying subtypes?

Research Question 2 (RQ2): Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder?

Null Hypothesis ($H_0 2$): There is no statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder.

Alternative Hypothesis ($H_1 2$): There is a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder.

Research Question 3 (RQ3): What is the rate of counselors recommending obsessive-compulsive disorder-specific empirically supported treatments across varying subtypes?

Research question 4 (RQ4): Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments?

Null Hypothesis ($H_0 4$): There is no statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments.

Alternative Hypothesis ($H_1 4$): There is a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments.

I answered RQ1 and RQ3 using frequencies and percentages. Descriptive statistics were appropriate as these questions were non-inferential and did not make predictions (Warner, 2013). I used inferential statistics to answer RQ2 and RQ4 which examined correlations. Binary logistic regression analyses addressed the hypotheses discussed. Binary logistic regression is used when the researcher wants to identify predictors for a dichotomous dependent variable. In binary logistic regression analyses, predictor variables can be any scale of measurement, with categorical variables dummy coded in SPSS (Warner, 2013). Due to these factors, binary logistic regression was appropriate to use for my study.

The assumptions associated with binary logistic regression include (a) an adequate sample size, (b) a dichotomous dependent variable with mutual exclusivity among categories, (c) one or more independent variables, (d) no multicollinearity present among the independent variables, (e) linearity between independent variables and logit of dependent variables, (f) no extreme outliers in the data, and (g) independence of observations (Pallant, 2016; Stoltzfus, 2011; Warner, 2013). It is essential to adhere to statistical analysis assumptions to interpret results effectively.

To minimize errors in the study and meet the study's assumptions, I utilized preliminary data screening and data cleaning procedures. In Chapter 4, I discuss these procedures further. I discuss the specific steps I took to test for the assumptions including chi-square tests and examination of outliers. Additionally, I report the effect sizes, confidence intervals, probabilities, and odds ratios in my study's results to clarify the strength of associations among variables. I handled missing data by eliminating insufficient responses. Each response needed to include 100% of the data to be considered sufficient and included in the study.

Ethical Procedures

I adhered to ethical procedures congruent with Walden University's Institutional Review Board (IRB). In my IRB application, I included clear documentation of the recruitment of participants, consent, and data collection procedures. I did not anticipate harm to participants in my study. All participants in the study were voluntary. Once Walden University's IRB approved data collection, participants received an invitation by email or forum to complete the study on Qualtrics. Participants were provided a brief description of the study's purpose, information regarding informed consent, eligibility criteria for the study, and the researcher's and committee chair's contact information.

Survey results remained anonymous to protect participants' information. I maintained the privacy of the data by using a password protected on a secure computer. This researcher and research committee members were only permitted to access data from the study. Data disposal followed Walden University's IRB requirements. I shared participants' demographic information in the study's results in a manner that prevented their identification.

Summary and Conclusions

This chapter focused on the methods for my study to examine the rates and predictors of counselors accurately diagnosing OCD and recommending OCD-specific ESTs. In this study, counselors licensed to practice independently in the United States participated in an online survey that included a demographic survey, Glazier et al.'s (2013) clinical case vignettes, and Glazier et al.'s (2013, 2015) adapted response instruments for diagnosis and treatment recommendations. I used descriptive and binary logistic regression analyses to address my research questions and hypotheses. All methods in the study addressed threats to validity and complied to Walden University's IRB requirements. My study focused on the rate of counselors, as the study's targeted population, accurately diagnosing OCD and recommending OCD-specific ESTs. In the following chapter, I discuss the data results regarding the discussed research questions and hypotheses.

Chapter 4: Results

Introduction

The purpose of this study was to (a) examine the rate of counselors in the United States accurately diagnosing OCD, (b) identify the predictors for counselors accurately diagnosing OCD, (c) examine the rate of counselors recommending OCD-specific ESTs, and (d) identify the predictors for counselors recommending OCD-specific ESTs. I used a quantitative, correlational study design that included descriptive statistics to examine rates and binary logistic regression analyses to examine the predictor variables. The sample included U.S. counselors licensed to practice independently recruited for the study by email, social media, and professional organization forums.

My research questions were:

Research Question 1 (RQ1): What is the rate of counselors accurately diagnosing obsessive-compulsive disorder across varying subtypes?

Research Question 2 (RQ2): Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder?

Research Question 3 (RQ3): What is the rate of counselors recommending obsessive-compulsive disorder-specific empirically supported treatments across varying subtypes?

Research question 4 (RQ4): Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments?

In this chapter, I discuss the pilot study I conducted before collecting data for my study. I also discuss data collection procedures, discrepancies from the initial study's proposal, and data cleaning methods I used before my analysis. Lastly, I report the results from the descriptive and inferential analysis.

Pilot Study

I obtained Institutional Review Board (IRB) approval for this study on October 31, 2023. I conducted a pilot study from November 6 through 13, 2023, to ensure the online survey was user-friendly, operating efficiently, and collecting responses as planned. I sent a link to the Qualtrics survey to 12 family members and friends. I requested that pilot study participants complete every applicable item on the survey, record the time it took them to complete the survey and provide me with feedback as necessary.

All 12 participants completed the survey, giving me usable data responses. The average time to complete the survey among participants was 5 minutes. Seven pilot study participants provided solely positive feedback and denied issues with the survey. Five pilot study participants gave me feedback regarding spelling and grammatical errors and suggested designs to improve the appearance of the survey. After making the recommended revisions, I transferred the data to SPSS to determine if the data was suitable for my study's intended analyses. The pilot study supported that the survey was appropriate for data collection; therefore, no major changes were made to the proposed sampling strategy, data collection, and data analysis plan.

Data Collection

I began data collection on November 17, 2023, and concluded on February 7, 2024, lasting approximately 12 weeks. In the following sections, I discuss the procedures I used to collect data for my study. Additionally, I explain discrepancies between my initial data collection plan discussed in Chapter 3. Lastly, I discuss the data screening and cleaning procedures I used before analyzing the results.

Procedures

I recruited participants through email and by posting an invitation to complete the study on online forums. I selected potential sample members and obtained their email addresses from the online Psychology Today provider directory. Initially, I planned to recruit 25 counselors from each city listed on Psychology Today's 'Popular Cities' browsing feature, but this did not generate enough responses to meet my minimum sample size. I submitted a request to the IRB to recruit additional participants beyond 25 from each city, which was approved on January 22, 2024. Following approval, I continued to recruit counselors from the cities identified until enough responses were received. A total of 1,194 counselors were emailed across the 39 cities using this method.

I also posted an invitation to complete the study on (a) professional counseling organization's member forums and ListServs, which included the ACA and the Counselor Education and Supervision Network Listserv, (b) Walden University's participant pool for mental health providers, and (c) social media networks, which included nine Facebook counseling groups and three LinkedIn counseling groups. I posted an invitation to the study a maximum of three times, as suggested by most social media community guidelines. I delayed additional posts until at least one week from the initial post to support guidelines regarding unreasonably frequent posts in the group. The number of counselors who viewed the invitation across the identified forums and social media platforms is unknown due to the nature of the platform; therefore, a response rate is not included in this section.

Participants who received an invitation from any of these identified recruitment platforms were provided with information about the study's purpose, informed consent, and the researcher's and committee chair's contact information. After providing consent to take the survey, participants were asked three screening questions to determine eligibility to participate in the study, which included questions about their age and license (See Appendix F for exclusion criteria questions). Participants were directed to the survey if they answered that they were over 18 years old, a professional counselor with an active license in at least one U.S. state, and licensed to practice independently, meaning they can diagnose without supervision. Participants were directed to an anonymous link provided on the study invitation to complete the study. Participants were asked to complete the study only once and were told they could forward it to other counselors licensed to practice independently if desired. Of the 190 participants who began the survey, 162 met eligibility and continued the survey. Only the 130 surveys that were 100% completed were considered usable data and used in the final analysis (n= 130).

Discrepancies

There were minor discrepancies in the data collection process from the plan presented in the study's proposal. As discussed, I originally planned to recruit 25 participants per city on Psychology Today's 'Popular Cities' browsing feature. As this did not generate sufficient responses, I continued to recruit counselors from each city until adequate responses were received following the IRB's approval on January 22, 2024, for this change.

Another deviation from my initial data collection plan included the professional counseling forums and listserv potential options identified for recruitment. Initially, I planned to use forums such as the ACA and the American Mental Health Counselors Association (AMHCA). I used the ACA's forum and the Counselor Education and Supervision Network Listserv to post my study. Some of the potential forum options initially considered, such as AMHCA and the Ohio Counseling Association, had restrictions for using their forums or listservs.

An additional discrepancy was the elimination of email follow-up procedures for additional recruitment. I planned to email participants three times following the initial email to participate in the study. I excluded this procedure after a discussion with my committee about the benefits of recruiting additional participants for the remaining necessary responses instead of contacting previously recruited individuals.

The final deviations from the original data collection proposal included two questions removed from the demographic questionnaire. Initially, there was a question regarding counseling license type (e.g., licensed professional clinical counselor) on the demographic questionnaire. I eliminated this question to allow for fewer questions, reducing the time needed for participants to complete the study. Additionally, the dissertation committee deemed the data unnecessary as participants were asked about their license in the screening questions, which determine eligibility for the study. This question would have solely provided information about the term for their counseling license, which varies by state and is unnecessary data for my study. Secondly, I eliminated a question regarding the participant’s professional setting, as this was also deemed unnecessary in the data collection in a discussion with my dissertation chair.

Data Screening/Cleaning

Data collection ended on February 7, 2024, with 190 Qualtrics survey responses. I transferred the survey responses from Qualtrics to Excel for data screening and cleaning procedures, which included eliminating unnecessary data such as Response ID and timestamps. Following these procedures, I transferred the data to SPSS (Version 28) for further data cleaning and screening procedures before the data analyses.

I recoded all the independent and dependent variables, excluding counselor years of experience, into dichotomous categorical variables. I dichotomized the dependent variable of counselors accurately diagnosing OCD to (a) inaccurate diagnosis and (b) accurate diagnosis. I dichotomized the dependent variable of counselors recommending OCD-specific ESTs to (a) non-OCD-specific EST recommendation and (b) OCD-specific EST recommendation. I also dichotomized the OCD subtype predictor variable to (a) a non-taboo case vignette and (b) a taboo case vignette.

Following a discussion with my dissertation methodologist, I decided to dichotomize the counselor theoretical orientation and counselor clinical specialty predictor variables to better align with the statistical model. I recoded the counselor theoretical orientation variable into two possible categories to distinguish between counselors who did or did not identify their primary theoretical orientation as an EST for OCD. An EST for OCD theoretical orientation included participants who stated any of the following as their primary theoretical orientation: (a) CBT (b) exposure therapy, and (c) ACT (See Table H1 in Appendix H).

I also recoded the counselor clinical specialty variable to distinguish counselors who did or did not specialize in treating OCD, anxiety, or phobias. Responses that included at least one of these specialties were identified as an OCD, anxiety, or phobia related clinical specialty. I grouped these specialties together due to their similarity in diagnostic features and treatment approaches (See Table H2 in Appendix H). I coded the counselor years of experience variable as an ordinal variable with ten levels of values to reflect the participant's years of experience level (See Appendix G).

Many questions in the survey included an optional text box for participants to use if they selected the 'other' option on the question. I used data-summing procedures to include any text entry responses in the recoded variable. Then, I examined the data for missing responses from partially completed surveys. Out of the 190 participants who began the survey, 130 responses provided usable data with 100% of the survey completed of those responses. The a priori power analysis discussed in Chapter 3 supported a minimum sample size of 121 participants; therefore, 130 completed responses were deemed adequate for the data analyses.

Results

I used descriptive and inferential statistics to examine my data. In the following section, I discuss the characteristics of the sample, including demographic data and representation. I discuss the case vignette responses that answer RQ1 and RQ3 regarding rates of counselors accurately diagnosing OCD and recommending OCD-specific ESTs. Next, I discuss the binary logistic regression model I used to answer RQ2 and RQ4, which examine correlates of interest in this study. I share the results of the analyses and explain how my study met the assumptions for binary logistic regression.

Sample Demographics

Participants were asked questions to collect demographic information (See Appendix F for demographic questions). Table 1 includes participants' demographic frequencies and percentages which include information about participants' (a) gender, (b) race, (c) age range, (d) highest earned educational degree, (e) years of counseling experience, (f) clinical specialty, (g) theoretical orientation, and (h) primary population treated (See Table 1).

Table 1

Participant Demographics

	n	%
Gender		
Male	20	15.4%
Female	105	80.8%
Trans	2	1.5%
Non-binary	3	2.3%
Total	130	
Race/Ethnicity		
White	92	70.8%
Black or African American	17	13.1%
Hispanic or Latino	7	5.4%
Asian	3	2.3%
American Indian or Alaska Native	1	.8 %
Other [a]	10	7.7%
Total	130	

	n	%
Age Range		
25 – 34 years old	37	28.5%
35-44 years old	50	38.5%
45-54 years old	27	20.8%
55 – 64 years old	13	10%
64-74 years old	2	1.5 %
75-84 years old	1	.8%
Total	130	
Degree		
Doctorate degree (PhD, EdD, PsyD)	77	20.8%
Master's degree (MA, MS)	103	79.2%
Total	130	
Years of Counseling Experience		
Less than one year	1	.8%
1-5 years	34	26.2%
6-10 years	41	31.5%
11-15 years	13	10%
16-20 years	2	1.5 %
21-25 years	1	.8%
26-30 years	1	.8%

	n	%
Over 40 years	1	.8%
Total	130	
Clinical Specialty		
Clinical specialty related to OCD[b]	76	58.5%
Clinical specialty unrelated to OCD	54	41.5%
Total	130	
Theoretical Orientation		
Theoretical orientation that included EST(s) for OCD[c]	73	56.2%
Theoretical orientation that did not include EST(s) for OCD	57	43.8%
Total	130	
Primary Age Treated		
Adults	111	85.4%
Children/Adolescents	19	14.6%
Total	130	

Note. No participants reported an age younger than 25 or older than 84. No participants reported years of counseling experience between 31-40 years.

[a] Other allowed a text entry option. For those who wrote in the text entry, responses included 'Biracial' and 'Multiracial.' [b] Participants were included 'Clinical specialty

related to OCD' if they reported at least one of the following specialties: OCD and related disorders, anxiety, and phobias. [c] Participants were included in 'Theoretical orientation that included EST(s) for OCD' if they reported at least one of the following theoretical orientations: exposure therapy, ACT, and CBT.

Representation

The demographics of counselors licensed to practice independently in the United States have not been reported in the existing literature; therefore, it is uncertain if my study's sample is proportional to the population of interest. However, the U.S. Bureau of Labor Statistics (BLS) (2023) reported some demographic data for employed mental health counselors. Their report indicated that 74.6% of employed mental health counselors were women, comparable to my study sample (Table 1). The U.S. BLS (2023) also reported that of the employed mental health counselors, 75.9% were White, 18.4% were Black or African American, 2.8% were Asian, and 16.8% were Hispanic or Latino. Most of the differences between my study and the U.S. BLS report were within a 5% difference, except for Hispanic or Latino rates, which were an 11.4% difference. I was not able to identify empirically reported nationwide rates of counselors' ages, years of experience, and degrees.

Case Vignette Responses

After completing the eligibility questions and primary population treated, participants were then directed to one of the five case vignettes, which were randomized among distributed surveys. All five case vignettes depicted a different subtype of OCD. If the participants reported primarily working with children and adolescents, the subject of the case vignette was presented as an adolescent boy, with minor changes to the vignette depicting sexual obsessions about children as followed in the study by Glazier et al. (2013) (see Appendix C). Frequencies and percentages of subtypes received by participants are included in Table 2. Additionally, Figure 1 includes the frequencies of the case vignettes received by participants by subtype and the vignette subject's age.

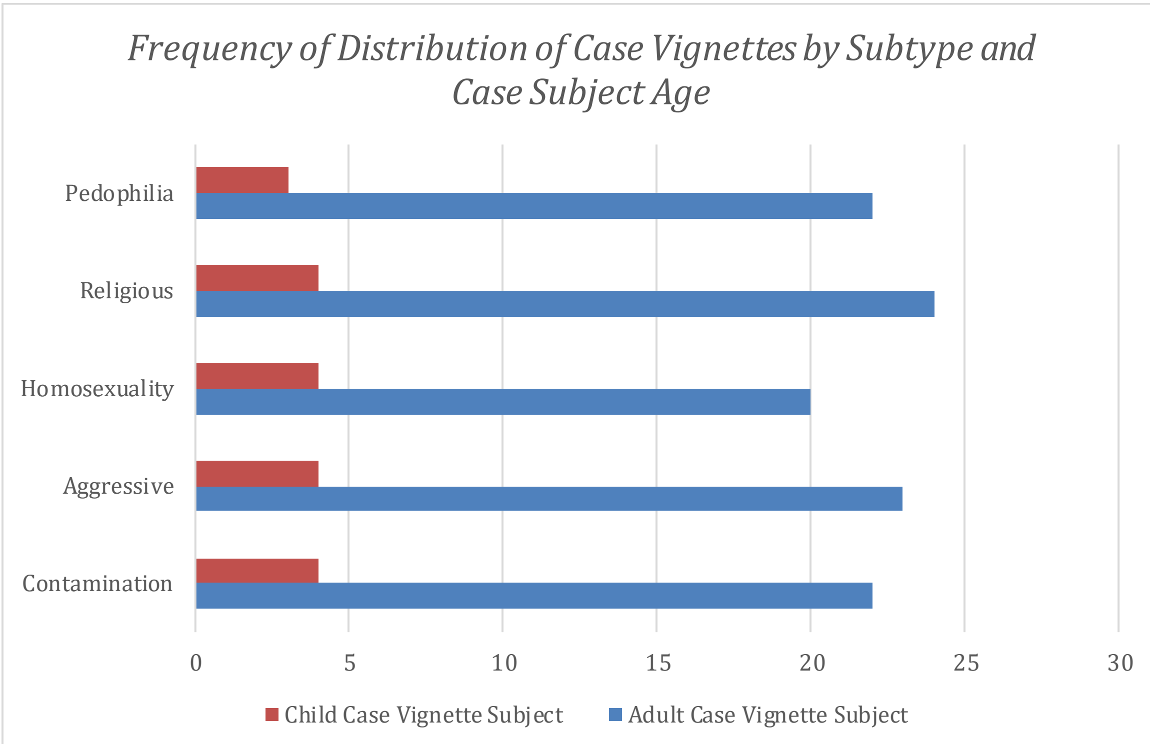
Table 2

Frequency of Case Vignettes Distribution by Subtype

	n	%
Vignette Subtype		
Contamination	26	20%
Aggressive	27	20.8%
Homosexuality	24	18.5%
Religious	28	21.5%
Pedophilia	25	19.2 %
Total	130	

Figure 1

Frequency of Case Vignettes Distribution by Subtype and Vignette Subject Age



RQ1

RQ1 was: What is the rate of counselors accurately diagnosing obsessive-compulsive disorder across varying subtypes? Of the 130 usable responses, 81 (62.3%) of counselors accurately diagnosed OCD across varying subtypes.

RQ3

RQ3 was: What is the rate of counselors recommending obsessive-compulsive disorder-specific empirically supported treatments across varying subtypes? Of the 130 usable responses, 109 (83.8%) recommended OCD-specific ESTs for OCD across varying subtypes.

The rates of accurate diagnosis and OCD-specific EST recommendations are shown in Table 3 by case vignette subtype theme and category of taboo or non-taboo. Figure 2 includes a visual representation of the frequencies of counselors accurately diagnosing OCD and recommending OCD-specific ESTs across varying OCD subtypes. The implications of these results are discussed in Chapter 5.

Table 3

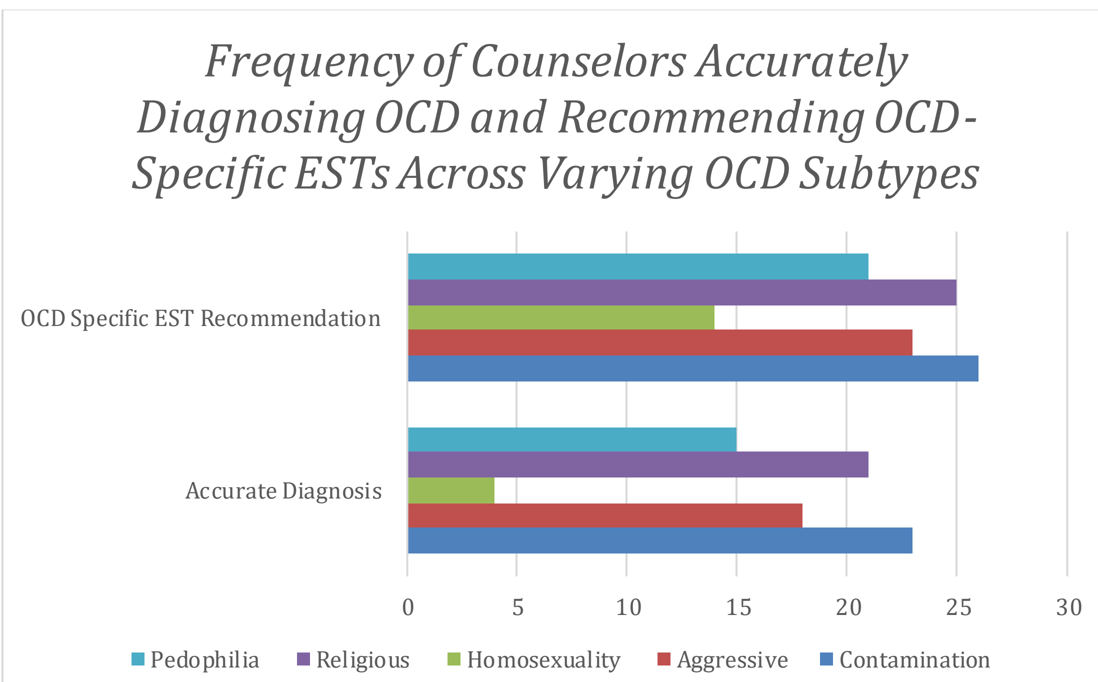
Frequency of Counselors Accurately Diagnosing OCD and Recommending OCD-Specific ESTs Across Varying OCD Subtypes

Accurate Diagnosis	*n*	%
Vignette Type		
Taboo (*n*=104)	58	55.8%
Aggressive (*n*= 27)	18	66.7%
Homosexuality (*n*=24)	4	16.7%
Religious (*n*=28)	21	75%
Pedophilia (*n*=25)	15	60%
Non-taboo (*n*=26)		
Contamination (*n*= 26)	23	88.5%
Total (*n*=130)	81	62.3%
OCD-specific EST Recommendation	*n*	%
Vignette Type		
Taboo (*n*=104)	83	79.8%

Aggressive (*n*= 27)	23	85.2%
Homosexuality (*n*=24)	14	58.3%
Religious (*n*=28)	25	89.3%
Pedophilia (*n*=25)	21	84%
Non-taboo (*n*=26)		
Contamination (*n*= 26)	26	100%
Total (*n*=130)	109	83.8%

Figure 2

Frequency of Counselors Accurately Diagnosing OCD and Recommending OCD-Specific ESTs Across Varying OCD Subtypes



Other Interesting Findings. I used descriptive analyses to generate additional interesting findings from my data. Of the participants who accurately diagnosed OCD (*n*=81), 76 (93.8%) of them recommended an OCD-specific EST. Of the participants who did not accurately diagnose OCD (*n*=49), 33 (67.3%) of them recommended an OCD-specific EST (See Table 4). As shown in Figure 3, the majority of participants who did not accurately diagnose OCD recommended an OCD-specific EST. The implications of these additional findings will be discussed in Chapter 5.

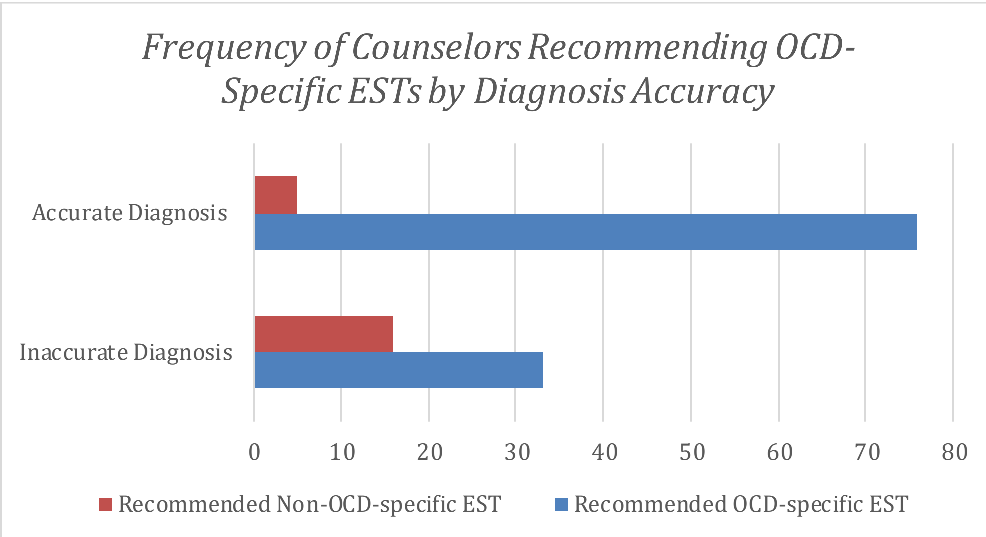
Table 4

Frequency of Counselors Recommending OCD-Specific ESTs by Diagnosis Accuracy

Accurate Diagnosis	*n*	%
OCD-specific EST	76	93.8%
Non-OCD-specific EST	5	6.2%
Total	81	
Inaccurate Diagnosis	*n*	%
OCD-specific EST	33	67.3%
Non-OCD-specific EST	16	32.7%
Total	49	

Figure 3

Frequency of Counselors Recommending OCD-Specific ESTs by Diagnosis Accuracy



Binary Logistic Regression Assumptions

I used binary logistic regression to examine if the predictor variables of interest in this study, which included (a) OCD subtype, (b) counselor theoretical orientation, (c) counselor years of experience, and (d) counselor clinical specialty were significantly related to the outcome variables of (a) accurately diagnosing OCD and (b) recommending OCD-specific ESTs.

As discussed in Chapter 3, a binary logistic regression includes several assumptions. My study was designed and controlled to meet many of the assumptions required for a binary logistic regression. The first addressed is the dichotomous dependent variable assumption, which I met in my study. Both of my dependent variables were dichotomous and contained mutually exclusive categories. I categorized the dependent variable of counselors accurately diagnosing OCD as inaccurate diagnosis and accurate diagnosis. I categorized the dependent variable of counselors' OCD-specific EST recommendations as non-OCD-specific EST recommendations and OCD-specific EST recommendations.

The sample size of 130 was sufficient to power the binary logistic regressions used to analyze the data. The majority of the dependent variables were demographic; it was considered highly unlikely that sample members would influence each other's demographic descriptions. It also seemed unlikely, given the method of data collection, that sample members recruited from across the United States would influence each other's diagnoses or recommendations for treatment. The use of random presentation of the vignettes provided further support for the assumption of independence of observations.

I conducted preliminary analyses in SPSS (Version 28) to assess the remaining assumptions. According to Pallant (2016), a Chi-square test can be used to test for statistically significant relationships among categorical variables. To check for multicollinearity, I ran Chi-square tests for independence (with Yates' Continuity Correction) among the predictor variables: (a) OCD subtype, (b) counselor theoretical orientation, (c) counselor years of experience, and (d) counselor clinical specialty (See Tables I1 – I6 in Appendix I).

Pallant (2016) recommended using the Continuity Correction row for two-by-two tables and the Pearson Chi-Square row for two-by-three or more tables. For variable relationships involving only (a) OCD subtype, (b) counselor theoretical orientation, or (c) counselor clinical specialty, I used the Continuity Correction row and Asymptotic Significance column to interpret the output. For tables involving the counselor years of experience variable, I used the Pearson Chi-Square value row to interpret the output (Tables I1 – I6 in Appendix I).

The output did not support significant associations (p >.05) among the variables, except between counselor theoretical orientation and counselor clinical specialty (p = .037) (Table I5 in Appendix I). Field (2005) recommended examining Phi and Cramer's V values following a Chi-square test to determine the effect sizes for associations. Phi should be interpreted for two-by-two tables and Cramer's V for two-by-three or more tables (Pallant, 2016). Effect sizes ranged from -.09 to .25, which are all considered small, according to Cohen's (1998) criteria. The effect sizes are reported in Appendix HI (Tables I1 – I6). I did not violate the multicollinearity assumption in my study, as the strength of the association among independent variables was small.

The preliminary analyses' results supported minimal concern regarding outliers, as indicated in the ZResid values which are often used to detect outliers (Pallant, 2016). Values less or greater than three are often considered extreme (Nurunnabi & West, 2012; Ryan, 1997). The most extreme outliers, as indicated in the ZResid values, were Cases 67 (-3.45), 36 (-3.26), and 24 (-3.21) for RQ4. (See Table I7 in Appendix I). To determine why these cases were outliers, I ran chi-square tests between the variables involved in these cases and examined the differences between expected and actual count values through the standardized residual values. According to Pallant (2016) examining the standardized residual values can provide helpful information to determine outliers. I found the largest discrepancy between the actual and expected count among the combination of an EST theoretical orientation and non-OCD-specific EST recommendation for OCD. (See Table I8 in Appendix I). Then, I examined this response combination in the data which confirmed the cases deemed as outliers in Table I7 (Appendix I).

The chi-square analysis and examination of the data supported that cases 67, 36, and 24 were outliers because they represent a small minority of participants who had an EST theoretical orientation and recommended a non-OCD-specific EST for OCD. As these cases were only slightly above the threshold of less or greater than three, they were retained in the usable data. Lastly, all variables in the analyses were categorical; therefore, checking for the assumption of linearity was unwarranted for my study.

RQ2

RQ2 was: Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors accurately diagnosing obsessive-compulsive disorder? I ran a standard binary logistic r$egression to answer RQ2. The Omnibus Tests of Model Coefficients supported the overall model as significant (p = .014), meaning the null hypothesis was rejected. I ran a Hosmer-Lemeshow goodness-of-fit test, which was not significant (p = .409) indicating that the model was correctly specified. Additionally, I ran a Nagelkerke's R^2 (.124) test to measure the effect size which indicated that 12.4% of the variation in the logit of counselors accurately diagnosing OCD was accounted for by the model.

The model revealed that the independent variables of counselor theoretical orientation (p= .397), counselor years of experience (p= .971), and counselor clinical specialty (p= .494) were not statistically significant; however, the OCD subtype predictor variable was found to be statistically significant (p = .006). Controlling for all other independent variables in the binary logistic regression, the OCD subtype variable was found to contribute to the model (See Table 5).

I reported the unstandardized *B* (-1.769), the *SE* (.647), the Wald (7.469), and statistical significance (p = .006) for the OCD subtype variable in Table 5. When participants went from a non-taboo OCD subtype to a taboo OCD subtype, the logit of counselors accurately diagnosing OCD decreased by 1.77. The odds ratio was computed by dividing *Exp(B)* = .17 by 1 to reflect the likelihood of accurately diagnosing OCD (Table 5). The results supported that participants with a non-taboo OCD subtype vignette were 5.9 times more likely to accurately diagnose OCD after controlling for counselor theoretical orientation, counselor years of experience, and counselor clinical specialty. The confidence interval of 95% supported that it is likely that the true odds ratio on the lowest end was .048 and on the highest end .606 (Table 5). The implications of these results are discussed in Chapter 5.

Table 5

Model 1: Variables in Logistic Regression Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
OCD Subtype (Taboo/Nontaboo)	1.769	0.647	7.469	1	0.006	0.17	0.048	0.606
Counselor Theoretical Orientation	0.33	0.389	0.718	1	0.397	1.391	0.648	2.983
Counselor Years of Experience	0.005	0.135	0.001	1	0.971	0.995	0.763	1.297
Counselor Clinical Specialty	0.269	0.393	0.469	1	0.494	1.309	0.606	2.829
Constant	1.688	0.851	3.933	1	0.047	5.408		

RQ4

RQ4 was: Is there a statistically significant correlation between obsessive-compulsive disorder subtype, counselor theoretical orientation, counselor years of experience, counselor clinical specialty, and counselors recommending obsessive-compulsive disorder-specific empirically supported treatments? I ran a standard binary logistic regression to answer RQ4. The Omnibus Tests of Model Coefficients supported the overall model as significant ($p < .001$, meaning the null hypothesis was rejected. Additionally, the Hosmer-Lemeshow goodness-of-fit test was not significant ($p = .458$) which supported that the model is correctly specified. Further, I used Nagelkerke's R^2 (.253) to measure the effect size. These tests indicated that 25.3% of the variation in the logit of counselors recommending OCD-specific ESTs for OCD was accounted for by the model.

The model indicated that the independent variables of OCD subtype ($p = .998$), counselor years of experience ($p = .406$) and counselor clinical specialty ($p = .742$) were not statistically significant; however, the variable of counselor theoretical orientation was found to be statistically significant ($p = .004$). Controlling for all other independent variables in the analyses, the counselor theoretical orientation variable was found to contribute to the model (See Table 6).

I reported the unstandardized *B* (1.653), the *SE* (.578), the Wald (8.173), and statistical significance ($p = .004$) for the counselor theoretical orientation variable. The results supported that when participants went from a non-OCD EST theoretical orientation to an OCD EST theoretical orientation, the logit of counselors recommending OCD-specific ESTs for OCD increased by 1.65. The odds ratio (*Exp(B)* = 5.222) supported that when participants had a theoretical orientation that was an EST for OCD, they were 5.2 times more likely to recommend an OCD-specific EST for OCD. The confidence interval of 95% supported that it is likely the true odds ratio on the lowest end was 1.682 and on the highest end 16.215 (Table 6). The implications of these results are discussed in Chapter 5.

Table 6

Model 2: Variables in Logistic Regression Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
OCD Subtype (Taboo/Nontaboo)	-19.714	7552.8	0.000	1	0.998	0.000	0.000	
Counselor Theoretical Orientation	1.653	0.578	8.173	1	0.004	5.222	1.682	16.215
Counselor Years of Experience	-0.144	0.173	0.690	1	0.406	0.866	0.616	1.216
Counselor Clinical Specialty	-0.176	0.533	0.109	1	0.742	0.839	0.295	2.384
Constant	21.001	7552.8	0.000	1	0.998	1320381925.426		

Summary and Conclusion

In this chapter, I discussed the pilot study, data collection procedures, and data analyses I used for my study. My final analysis included 130 (n=130) usable survey responses following data cleaning procedures. I used descriptive statistics to answer *RQ1* and *RQ3* regarding rates of counselors accurately diagnosing OCD (n= 81, 62.3%) and recommending OCD-specific ESTs (n= 109, 83.8%). Further, I used binary logistic regression analyses to answer *RQ2* and *RQ4* regarding the correlates of counselors accurately diagnosing OCD and recommending OCD-specific ESTs.

My study met all binary logistic regression assumptions. Both models in the regression analyses were significant; therefore, I rejected both null hypotheses, *H01* and *H02.* The analyses supported that the OCD subtype was a statistically significant correlate for counselors accurately diagnosing OCD, with taboo subtypes decreasing accuracy. Additionally, the results indicated that counselor theoretical orientation was a statistically significant correlate for counselors recommending OCD-specific ESTs, with an OCD EST theoretical orientation increasing OCD-specific EST recommendations. I reported the odds-ratio values to support these findings.

In Chapter 5, I interpret how these findings contribute to the body of knowledge regarding OCD diagnosis and treatment. I discuss the limitations of the study and provide recommendations for further inquiry. Lastly, I discuss the implications based on the conclusions of my study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

For decades, healthcare professionals, including mental health professionals, have misunderstood and ineffectively treated OCD, especially when it is presented within a taboo OCD subtype (Glazier et al., 2013; 2015; Senter et al., 2021; Stahnke, 2021). Devastating consequences can follow inaccurate diagnoses and ineffective treatment for those with OCD (Leung & Palmer, 2016; Maršanić et al., 2011; Porth & Geller, 2018; Rohanachandra & Vipulanandan, 2019). Using the medical model as a framework, the purpose of my study was to (a) examine the rate of counselors in the United States accurately diagnosing OCD, (b) identify the predictors for counselors accurately diagnosing OCD, (c) examine the rate of counselors recommending OCD-specific ESTs, and (d) identify the predictors for counselors recommending OCD-specific ESTs.

In this chapter, I review my study's key findings and interpret the results within the context of existing literature about OCD diagnosis and treatment. I discuss the limitations of my study related to external and internal validity. Then, I share my recommendations for future research based on my study's findings and limitations. Lastly, I discuss the implications for social change, given my conclusions.

Key Findings

Overall, the majority of counselors accurately diagnosed OCD. However, the accuracy rates varied across OCD subtypes, with the non-taboo contamination subtype having the highest rate of accuracy, followed by the taboo subtypes of religious and aggressive. The subtype of homosexual intrusive thoughts (sexual OCD subtype) had the lowest rate of diagnosing accuracy; the subtype of OCD was demonstrated to be a significant predictor variable in determining counselors' abilities to accurately diagnose OCD (Tables 3, 5).

Additionally, the majority of counselors recommended OCD-specific ESTs for OCD, which also varied across OCD subtypes. The non-taboo contamination subtype had the highest rate of OCD-specific EST recommendations, followed by the taboo subtypes of religious and aggressive. The subtype of homosexual intrusive thoughts (sexual OCD subtype) had the lowest rate of OCD-specific EST recommendations. Counselor theoretical orientation was supported as a statistically significant predictor for counselors appropriately recommending ESTs, with an OCD EST theoretical orientation (ACT, ERP/exposure therapy, CBT) increasing the likelihood of appropriate EST recommendations for OCD (Tables 3, 6).

Interpretation of Findings

I interpreted my study's key findings within the context of the existing body of knowledge regarding OCD diagnosing and treatment practices. As discussed in Chapter 2, diagnosing and treatment concerns have been studied extensively to provide further understanding of improving OCD treatment and reducing barriers for those seeking help. In the following section, I discuss how my study's key findings compare with previous studies about OCD diagnosis and treatment practices.

Concerns with Diagnosing OCD

For over 25 years, the literature regarding OCD assessment and treatment has supported consistent difficulty among healthcare providers in accurately diagnosing OCD, which presents significant barriers for those diagnosed with the disorder seeking treatment (Patel et al., 2022; Senter et al., 2021; Stahnke, 2021). As discussed in Chapter 3, studies (Glazier et al., 2013, 2015; Gouniai et al., 2022a, 2022b; Perez et al., 2022) have suggested that mental health professionals commonly misdiagnose OCD, especially when an individual has a taboo-themed subtype. My study effectively contributed to the existing body of knowledge regarding rates and predictors of OCD misdiagnosis by mental health professionals.

As reviewed in Chapter 3, Glazier et al. (2013) conducted a landmark study over 10 years ago regarding OCD misdiagnosis among mental health professionals, which included primarily psychologists in the sample (*n*=360). Although my study and the Glazier et al. study were conducted nearly a decade apart and with different target populations, the results regarding OCD diagnostic accuracy are remarkably consistent. Glazier et al. found that 38.9% of mental health professionals misdiagnosed OCD, meaning that 61.1% of them diagnosed OCD accurately. Using the same case vignettes, my study supported 62.3% of participants accurately diagnosed OCD across varying subtypes. While the Glazier et al. study included primarily psychologists and my study surveyed counselors, the rates were similar, with a difference of only approximately 1%. Although research (Jensen-Doss & Hawley, 2011) has shown that psychologists view diagnosis more positively than other mental health professionals do, the comparison is noteworthy. Glazier et al.'s study was conducted over a decade ago, which may suggest that diagnosing practices for OCD have not improved over time and do not differ among types of mental health professionals.

OCD Subtypes

My study's findings supported existing research (Glazier et al., 2013, 2015; Glazier & McGinn, 2015; Gouniai et al., 2022a; Perez et al., 2022) using case vignettes that suggested mental health professionals and healthcare providers were less likely to accurately diagnose OCD with a taboo subtype presentation. The taboo subtypes depicted in the case vignettes included themes related to harm, sexuality, and religion. My study supported that just over half of counselors (55.8%) accurately diagnosed OCD among taboo subtypes. This is less than a 1% difference from the Glazier et al. (2013) study, which supported 44.7% of mental health professionals misdiagnosed OCD with taboo subtypes.

Further, participants in my study were nearly six times more likely to diagnose OCD accurately when they were presented with a non-taboo OCD subtype. Research (Besiriglu et al., 2010; Cathey & Wetterneck, 2013; Cervin et al., 2022; Durna et al., 2019; García-Soriano & Roncero, 2017; Krebs et al., 2021; McCarty et al., 2017; Simonds & Thorpe, 2003; Williams et al., 2013) has suggested that those who experience taboo OCD subtypes endure more significant distress, stigmatization, and risks of suicide attempts. Consequently, it is concerning that my study confirmed accurately diagnosing taboo OCD subtypes as an ongoing issue for mental health professionals.

My study's results by subtype can be compared to Glazier et al.'s (2013) study and Perez et al.'s (2022) study, which both used Glazier et al.'s (2013, 2015) case vignettes with mental health professionals to assess diagnostic accuracy by OCD subtype. Glazier et al.'s (2013) study included primarily psychologists. Perez et al.'s (2022) study included mainly psychologists with a small minority of psychiatrists, family therapists, and counselors. Comparisons of mental health professionals' diagnosis accuracy rates by OCD subtypes across the three studies, including the present study, are shown in Table 7 and visually represented in Figure 4.

Table 7

Rates (%) of Mental Health Professionals Accurately Diagnosing OCD Across Varying OCD Subtypes – A Comparison Across Studies

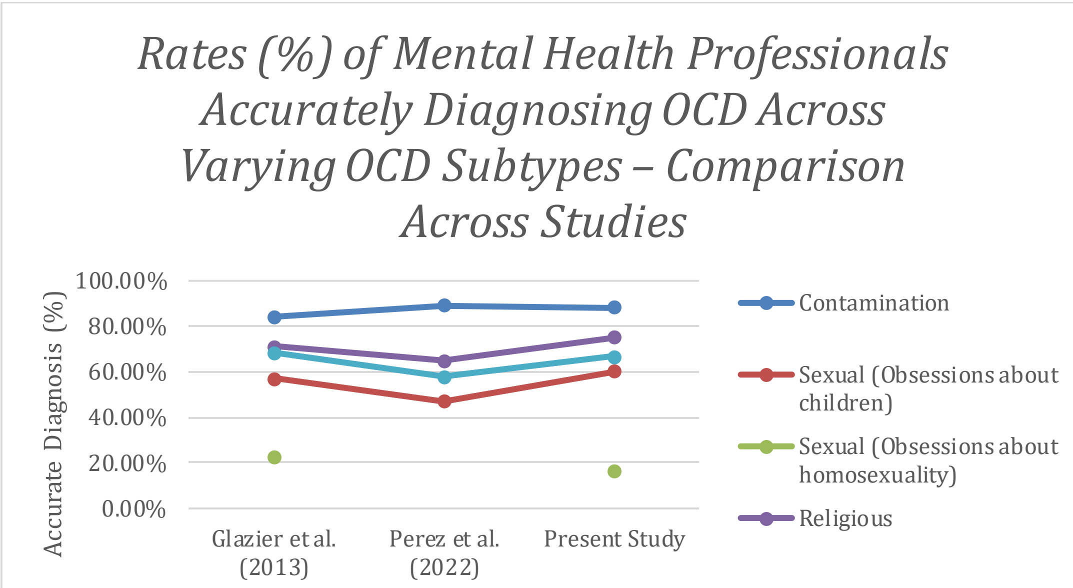
OCD Subtype	Glazier et al. (2013) (*n*=360)	Perez et al. (2022) (*n*=83)	Present Study (*n*=130)
Contamination	84.2%	89%	88.5%
Sexual (Obsessions about children)	57.1%	47%	60%
Sexual (Obsessions about homosexuality)	23%	N/A[a]	16.7%
Religious	71.2%	65%	75%
Aggression (Harm)	68.5%	58%	66.7%

Note. Glazier et al. (2013) and Perez et al. (2022) examined misdiagnoses among mental health professionals; therefore, the inverse of their reported rates was included to reflect accurate diagnosing rates.

[a] Perez et al. (2022) included one sexual subtype vignette that depicted sexual obsessions about children and/or family members based on the Glazier et al. (2015) vignettes.

Figure 4

Rates (%) of Mental Health Professionals Accurately Diagnosing OCD Across Varying OCD Subtypes – Comparison Across Studies



Note. Glazier et al. (2013) and Perez et al. (2022) examined misdiagnoses among mental health professionals; therefore, the inverse of their reported rates was included to reflect accurate diagnosing rates.

[a] Perez et al. (2022) included one sexual subtype vignette that depicted sexual obsessions about children and/or family members based on the Glazier et al. (2015) vignettes.

Sexual Subtypes. The comparison of the three studies supported that the taboo subtypes, especially sexual subtypes, have the lowest rates of accurate diagnosis among mental health professionals. One explanation for mental health professionals misdiagnosing OCD when it presents in the sexual subtype is that compulsions are often mental versus behavioral. Mental compulsions may include excessive questioning to determine attraction, self-reassurance, rumination about events, and mental checks about how one is feeling (Gordon, 2002; Williams et al., 2003, 2013). For example, an individual with sexual obsessions about children or fear of pedophilia may continue to ask themselves questions such as, Was I attracted to that child? How did I feel when I was around children recently? Do having these thoughts make me a pedophile? These mental compulsions are less evident; therefore, many mental health professionals likely do not recognize them (Gordon, 2002).

It is worth noting that my study's results demonstrated an increase in diagnostic accuracy from prior studies (Glazier et al., 2013; Perez et al., 2022) for the sexual OCD subtype that involves thoughts about children and fears of pedophilia; however, it was still among the lowest rates of accurately diagnosing OCD (Table 7, Figure 4). There are negative consequences with counselors inaccurately diagnosing individuals with a sexual OCD subtype with obsessions involving attraction to children. As discussed in Chapter 3, paraphilic disorders, such as pedophilic disorder, are commonly misdiagnosed for those with a sexual subtype of OCD. This not only reinforces the intrusive fears of those with this subtype but may risk illegitimate reporting to authorities (Bruce et al., 2018; Bonagura et al., 2022; Gadit, 2012; Gordon, 2002; Grant, 2019; Vella-Zarb et al., 2017). This poses a risk to those seeking help for OCD and likely deters them from sharing these intrusive thoughts with mental health professionals in fear of being reported. Additionally, mental health professionals are liable for illegitimate reporting following misdiagnosis of OCD which could have legal consequences.

The other sexual OCD subtype that depicted obsessions and compulsions regarding homosexuality was among the lowest rates of accurate OCD diagnosis, with an approximate 6% decrease in accuracy from Glazier et al.'s (2013) findings. The homosexual OCD subtype, commonly referred to as the sexual orientation OCD subtype, involves the individual with OCD fearing that they may be of the opposite sexual orientation than their current orientation. This is distinctly different from those who may be curiously exploring their true sexual desires. Individuals with sexual-orientation-themed OCD subtypes experience intrusive thoughts regarding the fear of being attracted to someone contradictory to the gender they are attracted to and engage in frequent compulsions to find certainty about their orientation (Williams et al., 2011).

Williams et al. (2011) urged mental health professionals to distinguish whether thoughts are ego-syntonic (i.e., they do not conflict with one's character) or ego-dystonic (i.e., they conflict with one's character). One of the critical features of the sexual orientation OCD subtype differing from genuine sexual orientation questioning is the presence of distress versus pleasure or fantasy. While some individuals honestly questioning their sexuality may experience shame or confusion, there is often a sense of pleasure associated with thinking about acting on these thoughts. Conversely, those with the sexual orientation OCD subtype experience only intrusion and distress regarding these thoughts; therefore, they develop compulsions to provide relief. When individuals with a sexual orientation-themed OCD are misunderstood by their therapists, this poses risks to their treatment and symptom improvement (Williams, 2008; Williams et al., 2011).

Aggression (Harm) Subtype. Accuracy in diagnosing the harm subtype of OCD remained relatively consistent, with nearly a third of participants misdiagnosing it throughout the studies. These findings suggested that mental health professionals, including counselors, are not improving in recognizing this OCD subtype and diagnosing accurately. Chapter 3 included a discussion about new mothers who were perceived to be harmful towards their children and were reported to children services yet were experiencing the aggression (harm) OCD subtype (Challacombe & Wroe, 2013; Sharma & Mazmanian, 2021). When mental health professionals misunderstand the harm OCD subtype, they risk reinforcing the individual's fears, thus worsening distress.

Religious Subtype. The religious OCD subtype, sometimes referred to as scrupulosity, was the second-highest diagnostic accuracy rate among counselors in my study with 75% of counselors accurately diagnosing it. Further, this rate was the highest among the taboo subtypes and increased from prior studies (Glazier et al., 2011; Perez et al., 2022). Common fears in the religious OCD subtype involve fear of sinning or disobeying a higher power with compulsions often involving confession, prayer, and reassurance (Greenberg & Huppet, 2010; Lack 2012). My study's findings suggested that mental health professionals are improving at recognizing this OCD subtype. This may be due to this subtype's prevalence as the religious subtype is common in those with OCD. A study by Greenberg and Huppert (2010) found religious OCD symptom rates between

0 to 93% among those diagnosed with the disorder. The prevalence rates included in the study ranged depending on religious communities and geographical areas globally. While it is concerning that a quarter of counselors in my study misdiagnosed this subtype, increased diagnosing accuracy rates are promising for the mental health field.

Contamination Subtype. The contamination subtype, which is non-taboo, consistently yielded high rates of diagnostic accuracy among mental health professionals throughout time (Table 7). The present study supported that when counselors had a non-taboo OCD subtype vignette, they were nearly six times more likely to accurately diagnose OCD. It is not a novel finding that individuals recognize the contamination OCD subtype at higher rates than other subtypes, as previous research has confirmed this (Glazier et al., 2013, 2015; Glazier & McGinn, 2015; Gouniai et al., 2022a, 2022b; Perez et al., 2022). This is also consistent with research regarding individuals outside of the mental health field recognizing non-tabboo themes at higher rates (McCarty et al.., 2017). People likely recognize these nontaboo OCD subtypes at higher rates due to the behavioral compulsions associated with contamination OCD, such as handwashing. Behavioral compulsions such as washing and cleaning are more discernable to others versus mental compulsions. It is expected that individuals without mental health training may not recognize subtypes beyond the nontaboo presentations; however, it is concerning that mental health professionals with graduate-level training or higher do not recognize nontaboo OCD subtypes at comparable rates. Further, this puts those with these subtypes at risk of receiving adequate treatment.

What Predicted an Accurate OCD Diagnosis?

In line with the Glazier et al. (2013) study, my study supported the OCD subtype as a predictor for accurate diagnosis. The literature is mixed on additional factors that predict OCD diagnostic accuracy. Glazier et al. (2013) identified a CBT theoretical orientation as a significant predictor for OCD misdiagnosis. Yet, Perez et al. (2022) did not find that theoretical orientation predicted participants diagnosing accurately. My study did not support clinician factors, which included (a) counselor theoretical orientation, (b) counselor years of experience, and (c) counselor clinical specialty as predictors for counselors accurately diagnosing OCD.

While no new significant findings were made about counselor traits that predict diagnosis accuracy, my study confirmed the existing body of knowledge that a taboo OCD subtype predicts decreased accuracy in diagnosing among mental health professionals. My study investigated OCD diagnostic accuracy among counselors over a decade after Glazier et al.'s (2013) study with psychologists. This supported the notion that throughout time and despite the type of mental health professional, OCD misdiagnosis remains problematic, especially among the taboo subtypes. The implications and recommendations from these findings are discussed later sections of this chapter.

OCD- Specific EST Recommendations

Approximately 84% of participants recommended an OCD-specific EST for the case vignette subject. Every participant who received the contamination subtype recommended an OCD-specific EST, a nearly 30% increase from Perez et al. (2022), who found that 71% recommended the correct treatments. This finding supports that most counselors have continued to identify treatments for nontaboo themes of OCD successfully. It is promising that counselors are improving their knowledge of treatments that best support those with traditional symptom presentations, such as contamination OCD subtypes.

Taboo Subtypes

Nearly 80% of counselors recommended an OCD-specific EST for the taboo themes of OCD. Akin to diagnostic accuracy rates, the sexual OCD subtype that depicted homosexual obsessions held the lowest rate, at approximately 58%, of counselors recommending an OCD-specific EST. This finding supported an ongoing concern in the field of OCD assessment and treatment. Williams et al. (2011) emphasized the importance of mental health professionals using evidence-based treatment practices, such as ERP with individuals who have obsessions related to sexual orientation.

The remaining taboo OCD subtypes, which included religious, sexual (pedophilic), and harm, yielded rates between 84-89% of OCD-specific EST recommendations. These rates were all significantly higher than Perez et al.'s (2022) findings, which supported that between 36-44% of mental health professionals did not recommend an evidence-based treatment for these subtypes. This comparison may also suggest that knowledge of the correct treatment practices for OCD has improved in recent years or may differ across professions or countries. The religious OCD subtype was among the highest rates of OCD-specific EST recommendations at 89%, which was another similarity between diagnostic accuracy rates and OCD-specific EST recommendation rates. As suspected with diagnostic accuracy, this finding may support that treatment knowledge is higher with this subtype due to its prevalence among those with OCD.

It is encouraging for the field that treatment recommendations for OCD have improved over time, especially among the taboo subtypes. Case studies (Leung & Palmer, 2016; Maršanić et al., 2011; Porth & Geller, 2018; Rohanachandra & Vipulanandan, 2019) discussed in Chapter 3 depicted experiences where individuals with taboo or atypical subtypes of OCD were treated with non-OCD-specific ESTs which worsened their symptoms. Consequently, there are positive implications for OCD treatment practices if mental health professionals have improved their understanding of OCD-specific ESTs.

What Predicted an OCD-Specific EST Recommendation?

My study's findings supported that when counselors had a theoretical orientation that included one of the ESTs for OCD (CBT, exposure therapy, ACT), they were over five times more likely to recommend an OCD-specific EST. Perez et al. (2022) found that mental health professionals with a CBT theoretical orientation were more likely to suggest CBT as a treatment recommendation for OCD.

It is plausible that counselors would be more likely to suggest a treatment that they use most often due to a cognitive bias. Specifically, confirmation bias may explain the relationship between OCD-specific EST theoretical orientation and OCD-specific EST recommendations. Confirmation bias is when individuals make conclusions that align with their perspective or understanding (Koslowski & Maqueda, 1993; Wason, 1960). Confirmation bias in clinical decision-making is common among healthcare providers and has presented numerous issues in the mental health field (Bhatti, 2018; Haverkamp, 1993; Larivée et al., 2018; Nickerson, 1998; Parmley, 2006; Pfeiffer et al., 2000).

Counselors' theoretical orientations often align with their philosophy about life and what drives human behavior (Halbur & Halbur, 2019). Thus, it is conceivable that counselors' theoretical framework created a confirmation bias about what would most benefit the case vignette subject. For example, if a counselor has allegiance to a CBT theoretical orientation, they likely believe distress originates from thoughts; therefore, cognitions must be altered to promote relief from symptoms and adaptive behaviors. Consequently, when reading a case vignette that depicted obsessional thinking, the CBT-oriented counselor would likely select CBT as the recommended treatment approach.

Alternatively, the presented findings may support that counselors did not have a cognitive bias and instead had knowledge of the OCD-specific ESTs when recommending a treatment. Further, it is possible that counselors who have been trained in one of the OCD-specific ESTs have reviewed empirical findings that support these treatments as effective for OCD; therefore, their treatment recommendation was based on supported clinical and research findings. Recommendations for future studies based on these interpretations are discussed in a subsequent section.

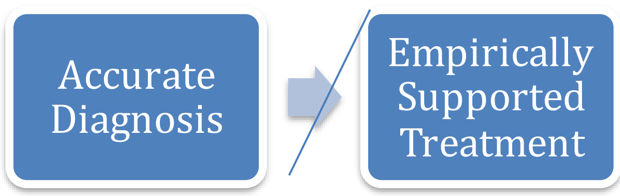
Discrepancy Between Diagnosis and Treatment

There was a discrepancy between rates of counselors accurately diagnosing OCD (62.3%) and recommending OCD-specific ESTs (83.8%). Findings from my study supported that the vast majority, nearly 94%, of participants who accurately diagnosed OCD recommended an OCD-specific EST. Similarly, Perez et al. (2022) deemed an accurate OCD diagnosis as a predictor for the correct treatment recommendation. These findings support that accurate diagnosis likely informs appropriate treatment recommendations. This is congruent with the medical model, emphasizing the sequenced protocol of selecting an accurate diagnosis to inform and implement evidence-based practices, as discussed in Chapter 3.

Conversely, my findings posed a conflict with the traditional medical model. In its most simplistic form, the medical model can be understood as (a) forming an accurate diagnosis and (b) implementing ESTs in alignment with the diagnosis (Horwitz, 2021; Huda, 2021). Of the counselors who did not accurately diagnose OCD, approximately two-thirds of them still recommended an OCD-specific EST. This suggested an accurate diagnosis was not necessary to recommend the correct treatment, which defied the conventional medical model protocol that diagnosis informs treatment, as visually depicted in Figure 5. In the following subsections, I discuss the possible explanations for this occurrence.

Figure 5

Medical Model Conflict



CBT and ACT

One likely explanation for the discrepancy between diagnosis and treatment rates is that CBT and ACT were included as OCD-specific EST responses in the study, yet these treatments are often ESTs for a variety of mental health disorders (APA's SCP Division 12, 2022; Dindo et al., 2017; Epp & Dobson, 2010; Hofmann et al., 2012). CBT is often considered a broad, overarching counseling approach that houses various treatment modalities (McMain et al., 2015). A few of the many treatments encompassed in CBT include rational emotive behavior therapy, stress inoculation training, dialectical behavior therapy, and mindfulness-based cognitive therapy (Epp & Dobson, 2010). Exposure therapy and ACT are also considered types of CBT (Foa, 2010; Foa & Franklin, 2000). Moreover, CBT has been researched extensively in mental health, deeming it an EST for most mental health disorders in the DSM-5 (Epp & Dobson, 2010; Hofmann et al., 2012).

The APA’s SCP Division 12 (2022) identified CBT for OCD as an OCD-specific EST. Further, the APA’s SCP Division 12 (2022) specified in their treatment description that exposures are included in CBT for OCD. In my study, I only included the phrase ‘Cognitive Behavioral Therapy’ and did not include ‘for OCD.’ Including CBT for OCD would have compromised the validity of the study as it may have suggested the correct diagnosis. Consequently, this may have contributed to the discrepancy between diagnosis and treatment recommendations, as the type of CBT was not specified. Further, participants likely viewed this generally and recommended it, knowing that most mental health disorders have CBT as an identified EST.

It is possible that the majority of participants who recommended CBT did not suggest it, with exposures being included. This suspicion comes from previous research (Hipol & Deacon, 2012; Perez et al., 2022; Whiteside et al., 2016), which supported that many mental health professionals report treating OCD with CBT but do not use exposures. For example, Perez et al. (2022) found that CBT was recommended for OCD more than any other treatment, yet less than 10% recommended exposure therapy.
Due to CBT and ACT having substantial dissemination in the mental health field for the vast majority of mental health disorders, counselors likely selected these options even if they did not recognize OCD as the presenting diagnosis or have knowledge of the OCD-specific ESTs. While the responses that included solely CBT or ACT were not isolated in the results, this may explain why the majority of individuals who did not accurately diagnose OCD still recommended an OCD-specific EST.

Non-Medical Model Practice

In Chapter 3, I discussed the wide use of the medical model in the mental health field and supported counselors using it despite their wellness orientation. Although I assumed participants in my study would operate within a medical model when diagnosing and recommending treatments, it is possible that participants practiced outside this protocol.

Although counselors often practice in clinical settings that require them to follow the medical model, their training background and therapeutic orientation are rooted in a wellness model. Tadlock-Marlo (2013) argued that this distinguishes counselors from other trained disciplines, such as psychologists and clinical social workers. While academic training programs for counselors include education related to diagnosing practices, most programs operate from a holistic wellness model (Tadlock-Marlo, 2013).

If the counselors included in my study operated outside of the medical model, it is possible they selected a treatment recommendation without an empirically supported association with the diagnosis. Further, my study supported that counselors were more likely to recommend OCD-specific ESTs when their theoretical orientation included an OCD-EST. Consequently, it is also conceivable that counselors recommended treatments they adhered to most often in their counseling practice without connection to the diagnosis selected.

Limitations

My study had several limitations despite my attempt to decrease internal and external threats to validity. Consequently, some of the interpretations I discussed in this chapter should be understood within the context of these limitations. In this section, I discuss limitations associated with sampling procedures, recruitment methods, and the instruments used in my study.

External Validity

Several limitations were associated with the type of sampling I used in my study. I used purposive sampling to recruit participants with specific characteristics, such as being a counselor with an active counseling license to practice independently in at least one US state. According to Andrade (2020), although purposive sampling is common, especially among health-related studies, there are disadvantages to using this sampling method. One noted limitation is that results can only be interpreted within the population studied, which threatens external validity. Furthermore, the interpretations included in this chapter should be considered within the context of counselors. Comparisons to similar studies (Glazier et al., 2013; Perez et al., 2020) should be interpreted with this consideration in mind.

Another limitation of sampling was only recruiting counselors who practice in the United States. As research (Perez et al., 2020; Wahl et al., 2010) has supported OCD diagnosis and treatment issues occur globally, only including counselors from the United States may have limited the external validity of this study. Similarly, another limitation was recruiting counselors from Psychology Today's 'Popular Cities' browsing feature, as there was unequal representation among US geographical areas. Additionally, sample sizes varied between my study (*n*=130) and Glazier et al.'s (2013) study (*n*=360); therefore, comparisons between the studies should be interpreted with caution.

Internal Validity

Additionally, there were threats to internal validity. Some of the instruments used in the study were adapted from their original use in the Glazier et al. (2013, 2015) studies. These adaptions included using the Glazier et al. (2013) and Glazier et al. (2015) response instruments together and removing the medication options from Glazier et al.'s (2015) instrument. While these changes were minor, they may have posed a risk to the internal validity and reliability of the instruments used in my study.

Glazier et al. (2013) noted several limitations to their study that also apply to my study. One of these included the limited clinical information shared with participants before asking them to make a diagnosis and treatment recommendations. The Glazier et al. (2013) case vignettes were 4-5 sentences, which allowed for a shorter survey. While clinical experts validated the vignettes to depict OCD sufficiently, Glazier et al. (2013) deemed the limited information in the vignette a potential limitation. According to Glazier et al. (2013), allowing participants to select multiple diagnoses helped manage the limitation. My study also followed this procedure, as the instructions allowed participants to choose numerous diagnoses. I discuss recommendations for future research that mitigates these limitations in the following sections.

Recommendations

My study contributed to a large body of research (Patel et al., 2022; Senter et al., 2021; Stahnke, 2021) that has indicated OCD is frequently misdiagnosed and not treated with OCD-specific ESTs, resulting in negative consequences for those diagnosed with the disorder. Future studies should continue to explore this topic so that treatment practices for OCD can improve. In this section, I discuss recommendations for future research based on my study’s findings.

Based on my study’s limitations, future research should investigate OCD diagnosis and treatment practices among broader populations. These populations may include several types of mental health professionals, such as clinical social workers, psychologists, and counselors, to adequately determine if OCD diagnosis and treatment practices have improved over time. Future studies should also include mental health professionals internationally as research supports issues with OCD treatment globally (Perez et al., 2020; Wahl et al., 2010). These future studies would likely have increased sample sizes from the current study, strengthening the findings' validity.

Future studies might explore more about what contributes to counselors frequently misdiagnosing and ineffectively treating OCD. Possible research directions include examining training programs at graduate and post-graduate levels to evaluate their efficacy. Additionally, these studies should have a specific focus on taboo subtypes, as my study supported that counselors have more challenges accurately diagnosing and recommending OCD-specific ESTs for these symptom presentations. Researchers studying this may also specifically look at the sexual-orientation focused OCD subtypes as these elicited the lowest rates of accurate diagnosis and OCD-specific ESTs recommendations among counselors.

Another direction for research regarding why counselors have difficulty with diagnosing and treating OCD is to conduct a qualitative study about what leads counselors to their clinical decisions. Future studies may also focus on why counselors' theoretical orientations predicted their treatment recommendations as cognitive bias was suspected but not confirmed. Studies regarding these topics would likely generate more information about clinical barriers leading to the ongoing issue of OCD misdiagnosis and ineffective treatment patterns.

Implications

My study adds to decades of research that supports most mental health professionals do not accurately diagnose and treat OCD. By focusing solely on counselors, my study confirmed that counselors are a part of these ongoing concerns. The results from my study have numerous implications for social change. In this section, I discuss the implications on various levels, including (a) an individual and family level, (b) a counselor level, and (c) a program level.

Individuals and Families

When an individual suspects they have OCD, seeking a qualified mental health professional for treatment is imperative. Additionally, if loved ones, such as parents or spouses, believe a family member has OCD, it is paramount to encourage ESTs, such as

ERP. Many individuals may trust mental health professionals to diagnose and treat their symptoms adequately; however, my study shed light on the alarming truth that many counselors do not accurately diagnose OCD or recommend OCD-specific ESTs.

Due to ongoing concerns with OCD assessment and treatment, Senter (2021) recommended a multilevel approach for the mental health field. The first recommendation included using various public campaigns to increase awareness about OCD among individuals and families. Senter (2021) identified various online platforms dedicated to improving awareness about OCD resources, which included (a) The International OCD Foundation (IOCDF), (b) The Anxiety and Depression Association of America (ADAA), (c) The National Alliance on Mental Illness (NAMI), (d) The National Institute of Mental Health (NIMH). The IOCDF, ADAA, NAMI, and NIMH all provide accurate information about OCD assessment treatment. Many sites, such as the IOCDF and ADAA, provide online directories to find healthcare providers with specific training in OCD assessment and treatment.

If an individual or their loved one suspects that they have OCD, people should consult with credible organizations such as IOCDF, ADAA, NAMI, and NIMH. After learning more about OCD, they should use the provider directories, such as the IOCDF and the ADAA, to identify a counselor with the appropriate OCD training. By finding a counselor on these platforms, individuals and loved ones increase the likelihood of being accurately diagnosed and receiving evidence-based care.

Counselors

The findings of this study supported that counselors need to improve their assessment and treatment practices for OCD, especially among taboo subtypes. According to Senter (2021), using validated screening measures can help mental health professionals accurately diagnose OCD. Some assessments Senter (2021) identified included the Obsessive-Compulsive Inventory-Revised, the Dimensional Obsessive-Compulsive Scale, and the Y-BOCS. Counselors should become familiar with these scales. Group counseling practice owners should offer training and use of these scales to their counseling employees.

Additionally, counselors should seek training in the field related to OCD treatment, especially those who do not have OCD-specific theoretical orientations. Many training programs are offered in the mental health field to train clinicians on how to diagnose and treat OCD. One of the most notable programs is the IOCDF's Behavioral Therapy Training Institute (BTTI) (Reese et al., 2016; Senter, 2021). The BTTI is a 3-day intensive course for mental health professionals designed to improve OCD treatment practices. The key features of 3-day BTTI training include clinicians (a) improving OCD diagnostic accuracy, (b) understanding ERP and implementing it effectively, (c) appropriately utilizing clinical assessments in practice, and (d) flexibly adapting treatment to fit the OCD subtype, (e) learning about advanced OCD topics and treatment issues, and (f) individualized case formulation and treatment planning for a client the clinician is currently working with (Reese et al., 2016). Reese et al. (2016) measured

BTTI outcomes and found that mental health professionals reported moderate use of the skills learned after training. Due to the BTTI's efficacy in training mental health professionals, counselors should enroll in the program to improve their OCD assessment and treatment practices.

Consultation may also play a key role in counselors improving their OCD diagnosing and treatment practices. Reese et al. (2016) also found that when mental health professionals utilized consultation with OCD experts following the BTTI, their OCD assessment and treatment skills improved. Comparably, a study by Beidas et al. (2012) found that consultation was a predictor of mental health professionals using skills learned from a CBT training program for anxiety treatment. Counselors who lack knowledge of OCD assessment and treatment practices should seek case consultation with more seasoned, expert mental health professionals about OCD.

Programs

My study has implications for graduate and post-graduate program development. Students in counseling programs accredited by CACREP must be trained in diagnosing, per CACREP (2016) standards. However, my study has implications for CACREP-accredited counseling programs. Considering my study's results that many counselors do not accurately diagnose OCD or recommend OCD-specific ESTs, additional training should be given to counseling students regarding OCD.

This study has implications for counseling program directors and professors to improve their educational interventions regarding OCD diagnosis and treatment. For example, in Psychopathology or Clinical Pathology courses, academic instructors should give OCD topics additional consideration given their varying subtypes. Additionally, instructors can use case vignettes depicting taboo subtypes with students to demonstrate and test diagnosing practices. In clinical assessment courses, OCD assessments, such as the Obsessive-Compulsive Inventory-Revised, the Dimensional Obsessive-Compulsive Scale, and the Y-BOCS, should be shared with students. OCD-specific ESTs, with a focus on ERP, should be taught to students to improve treatment understanding,

Programs for mental health professionals to improve their OCD treatment, such as the BTTI, should be offered more frequently, globally, and affordably. At the time of this study, the BTTI costs $650 to attend and is only offered up to 11 times each year in North America (IOCDF, n.d). This creates less opportunity for counselors to participate in the program to improve their practices with individuals with OCD. While the IOCDF (n.d) offers some scholarship opportunities available for clinicians of minority populations, bilingual, or are working with underserving populations, additional opportunities should be granted to mental health professionals seeking training. Additionally, there are promising results for intensive online OCD training programs (Jacoby et al., 2019). Given recent positive empirical support, additional online programs should be developed to reach broader populations of mental health professionals.

Conclusion

For years, healthcare professionals have commonly misdiagnosed OCD and applied ineffective treatments, especially among taboo subtypes. As OCD has remained one of the most debilitating and distressing mental health disorders, this poses significant barriers to those seeking treatment for their OCD. My study's findings supported OCD misdiagnosis, and treatment issues remain an ongoing issue for healthcare professionals, which include counselors.

Key findings from my study supported that counselors accurately diagnosed and recommended OCD-specific ESTs for the contamination subtype at higher rates than taboo subtypes. Specifically, the sexual subtype of OCD depicting obsessions about homosexuality yielded the lowest rates of accurate diagnoses and EST recommendations. Counselors were more likely to accurately diagnose OCD when it was nontaboo and more likely to recommend an OCD-specific EST when their theoretical orientation included an OCD-specific EST. However, it is possible that cognitive bias played a role in counselors' theoretical orientation being a predictor for treatment recommendations. Comparing the current study to past research, my findings supported that diagnosing accuracy has remained an issue, yet recommending ESTs has improved.

Due to discrepancies between the rates of diagnosis and OCD-specific EST recommendations, I presented a possible conflict with the medical model. I discussed potential explanations for this, including participants likely choosing CBT or ACT despite an inaccurate diagnosis due to the wide dissemination of these treatments for a host of mental health disorders. Additionally, it is possible that counselors operated outside of a medical model practice while participating in my study, given their strong wellness background.

I discussed my study's limitations and recommendations for future research. Limitations included threats to external and internal validity. Recommendations for future research should increase generalizability by including broader populations of mental health professionals. Additionally, studies that investigate why counselors misdiagnose and do not recommend OCD-specific ESTs among OCD subtypes would likely elicit helpful information for improving treatment practices.

My study’s findings had several strong implications for social change on individual and family, counselor, and program levels. Individuals who believe they may have OCD should seek accurate information about their symptoms and find an OCD-trained mental health professional using an online directory to prevent being misdiagnosed and ineffectively treated. Counselors need to improve their understanding of OCD assessment and treatment practices to ensure that they are providing empirically supported and effective care to their clients. Lastly, professional training and graduate program directors should make efforts to disseminate accurate information regarding OCD diagnosis and treatment.

The findings and implications included in this study are paramount for enacting change in the mental health field. Those with OCD will continue to endure hardship with their symptoms if mental health professionals, including counselors, do not improve their approach. Counselors likely entered the mental health profession to promote client welfare and wellness, yet ineffective diagnosing and treatment practices towards those with OCD may be incurring harm and jeopardizing their well-being. Professionals involved in the mental health field at multiple levels should consider the gravity of these findings and use them to promote better care for those diagnosed with OCD.

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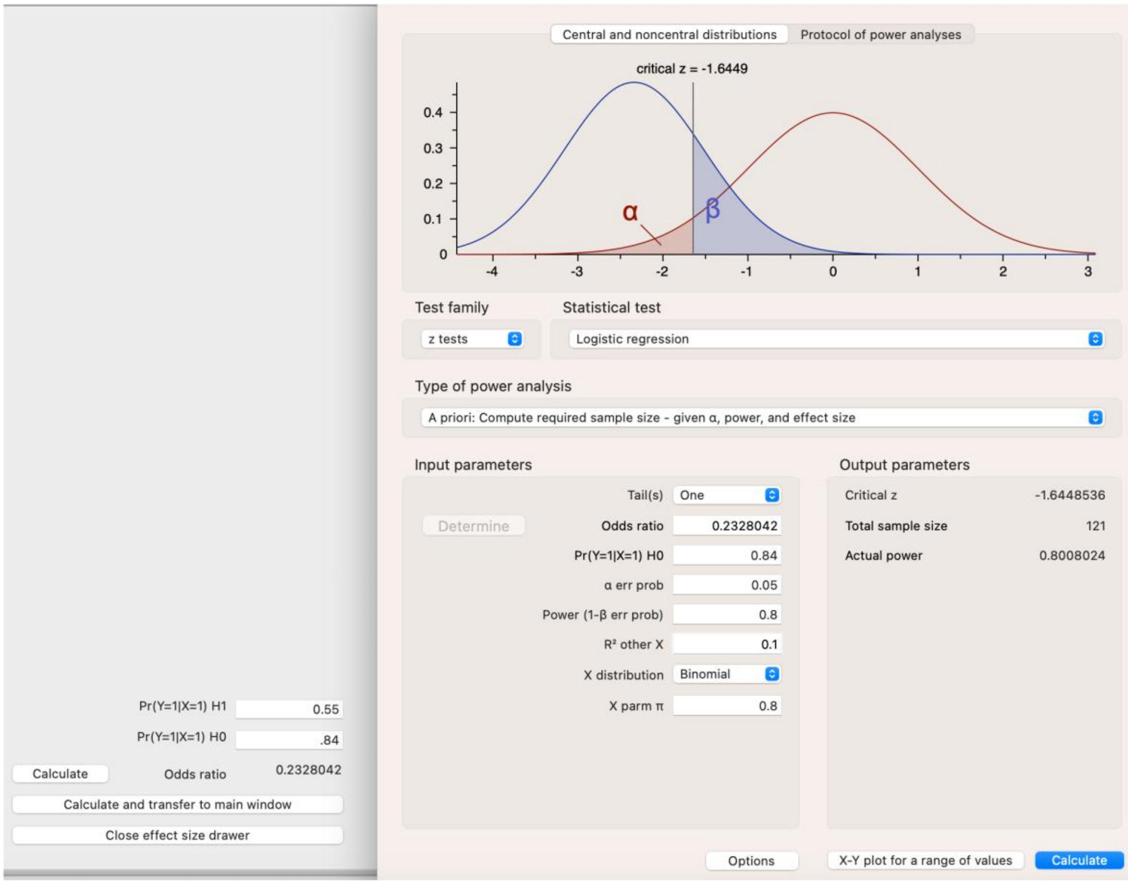
Appendix A: G*Power Analysis



Appendix B: Permission Letter for Instruments

Clearview Horizons PLLC

[redacted]

Kimberly Glazier Leonte, PhD, Licensed Clinical Psychologist

[redacted].[redacted].[redacted]; [redacted]

May 15, 2023

To Whomever This May Concern,

I am writing to provide consent for Natalie Grierson to use the OCD case vignettes from my prior research study (Glazier, Calixte, Rothschild, & Pinto, 2013). In addition, I provide consent for Natalie to use and adapt the treatment recommendation assessment questions from my prior research study (Glazier, Swing, & McGinn, 2015).

If you have any additional questions, you are welcome to contact me at: [redacted] or [redacted]

Sincerely,

Kim

Kimberly Glazier Leonte

Kimberly Glazier Leonte, PhD
Licensed Clinical Psychologist

Appendix C: Glazier et al. (2013) Case Vignettes

Study Vignettes

Contamination obsessions

Jack, a middle-aged man, constantly worries about dirt and germs. These worries limit his range of daily activities, for Jack tries at all costs to avoid touching objects he believes may be contaminated. However, if Jack does come in contact with a "dirty" object, he immediately washes his hands to prevent himself from catching a disease. These worries occur often and cause Jack significant distress.

Aggressive obsessions

Jack, a middle-aged man, thought about pushing the lady next to him onto the subway tracks. He was distressed by the thought and the fear that he might act on it, so he left the subway and walked home. However, Jack remained worried and found himself frequently visualizing the situation to make sure he did not actually cause her any harm. This worry about harming others occurs often and causes Jack significant distress.

Obsessions about homosexuality

Jack, a middle-aged man, has been in a committed relationship with his girlfriend for two years. While he loves his girlfriend and has never been sexually attracted to males, he finds himself wondering if he really is gay. Upon seeing males, Jack assesses his sexual arousal to determine if he is turned on. This doubt regarding his sexuality occurs often and causes Jack significant distress.

Religious obsessions

Jack, a middle-aged, highly religious man, believes that he is not allowed to say the Lord's name in vain. Moreover, if he hears someone else say anything remotely negative toward God, Jesus or the Virgin Mary, he feels significant distress, fearing for his and the individual's safety and well being. Therefore, upon hearing such expressions, Jack prays repeatedly to himself until he feels safe from harm. This can go on for hours.

Sexual obsessions about children

Jack, a middle-aged man, used to love spending time with his nieces and nephews and is their "favorite uncle." Recently he had an image of touching one of the children inappropriately, which upset him greatly. He was certain that he'd never harm them but the thoughts increased in frequency. He now tries to avoid contact with the children and will not spend time alone with them. Jack's fear of acting on these thoughts occurs often and causes him significant distress.

Footnote: For participants who work primarily with children/adolescents:

(1)"Jack" was presented as a "teenaged boy" in each vignette.

(2) In the sexual obsessions about children vignette, "uncle" and "nieces and nephews" were changed to "cousins" and "cousin", respectively.

Appendix D: Glazier et al. (2013) Diagnostic Impressions Instrument

Survey participants' diagnostic impressions of patient in vignette[a]

Based on the vignette, which option most likely applies? If more than one, please mark all options that may apply:

____ Agoraphobia with panic disorder

____ Agoraphobia without panic disorder

____ Anger management issues

____ Anorexia

____ Antisocial personality disorder

____ Attention-deficit/hyperactivity disorder

____ Autism

____ Avoidant personality disorder

____ Bipolar I disorder

____ Bipolar II disorder

____ Borderline personality disorder

____ Bulimia

____ Delirium

____ Delusional disorder

____ Generalized anxiety disorder

____ Histrionic personality disorder

____ Impulse control disorder

____ Intermittent explosive disorder

____ Major depression

____ Marital problems

____ Narcissistic personality disorder

____ Obsessive-compulsive disorder

____ Obsessive-compulsive personality disorder

____ Organic disorder

____ Panic disorder

____ Paranoid personality disorder

____ Posttraumatic stress disorder

____ Pedophilia

____ Psychosis

____ Sexual identity confusion

____ Schizophrenia

____ Schizotypal personality disorder

____ Schizoid personality disorder

____ Social phobia/social anxiety disorder

____ Specific phobia

____ Strong religious values

____Other

If you marked more than one of the above, please rank your choices in order of likelihood:

____

____

[a]Based on a list of 36 psychiatric diagnoses and nonclinical symptom presentation and "Other."

Appendix E: Glazier et al. (2015) First-Line Treatment Recommendation Instrument

2. Based on the vignette which technique(s) would you most likely recommend as a **first-line treatment** for helping the individual?

Cognitive behavioral therapy
____ Acceptance and commitment therapy
____ Behavioral therapy
____ Cognitive therapy
____ Cognitive-behavioral therapy
____ Dialetical behavioral therapy
____ Exposure and response prevention
____ Eye movement desensitization and reprocessing
____ Prolonged exposure therapy
____ Unified protocol

Medication
____ Antipsychotics
____ Atypical antidepressants
____ Benzodiazepine
____ Serotonin-norepinephrine reuptake inhibitors
____ Selective serotonin reuptake inhibitors
____ Tricyclics
____ Other (please specify)____________________

Psychodynamic/analytic therapy
____ Gestalt therapy
____ Humanistic-existential therapy
____ Interpersonal psychotherapy
____ Object relations therapy
____ Psychoanalytic therapy
____ Psychodynamic therapy
____ Talk therapy

Additional Treatment Modalities
____ Biofeedback
____ Couple's therapy
____ Family therapy
____ Group therapy
____ Hypnosis
____ Refer to a religious leader
____ No treatment recommendation
____ Other (please specify)____________________

Appendix F: Exclusion Criteria Questions

Thank you for your interest in this survey. To begin, please respond to the following questions to determine your eligibility and to collect demographic data for this study:

Q1: Age

Under 18

18 – 24

25 – 34

35-44

45-54

55-64

65-74

75-84

85 or older

Q2: Are you a professional counselor with an active license in at least one US state?

Yes

No

Q3: Are you independently licensed, meaning you do not need supervision to clinically diagnose?

Yes

No

Appendix G: Demographic Questions

Thank you for participating in the case vignette. Please complete the survey by answering the additional demographic questions:

Q1: Gender

Male

Female

Trans

Non-Binary

Q2: Ethnicity (please mark all that apply)

White

Black or African American

American Indian or Alaska Native

Asian

Native Hawaiian or Pacific Islander

Hispanic or Latino

Other (Text entry option)

Q3: Highest counseling degree completed

Master’s (MS, MA)

Doctorate (PhD, EdD, PsyD)

Q4: How many years have you provided counseling?

Less than one year

1-5 years

6-10 years

11-15 years

16-20 years

21-25 years

26-30 years

Over 40 years

Q5: What do you consider to be your primary area(s) of clinical specialty? Please do not select more than three.

Adjustment issues

Anxiety

Attention-deficit hyperactivity disorder

Autism spectrum disorder

Bipolar disorders

Communication issues/disorders

Depression

Disruptive, impulse-control, and conduct issues/disorders

Dissociative disorders

Elimination disorders

Family issues

Feeding/eating disorders

Gender dysphoria

Intellectual developmental disorders

Learning issues/disorders

Marital Issues

Motor disorders

Neurocognitive disorders

Obsessive-compulsive disorder and related disorders

Paraphilic disorders

Personality disorders

Phobias

Psychosis

Sexual dysfunction

Sleep-wake issues/disorders

Somatic symptom disorders

Substance-related/addictive issues/disorders

Trauma

Other (Text entry option)

Q6: What do you consider to be your primary theoretical orientation(s)/therapy modalities? Please do not select more than three.

Acceptance and Commitment Therapy

Adlerian Therapy

Art Therapy

Behavioral Therapy

Brief Solution-Focused Therapy

Choice Theory/Reality Therapy

Cognitive Therapy

Cognitive Behavioral Therapy

Cognitive Processing Therapy

Compassion-Focused Therapy

Dialectical Behavioral Therapy

Emotion-Focused Therapy

Existential Therapy

Exposure Therapy

Eye Movement Desensitization and Reprocessing

Feminist Therapy

Gestalt Therapy

Humanistic Therapy

Hypnotherapy

Interpersonal Therapy

Mind-Body Psychotherapies

Motivational Interviewing

Play Therapy

Psychoanalysis

Psychodrama

Psychodynamic

Relational Therapy

Sex Therapy

Somatic Experiencing

Unified Protocol

Other (Text entry option)

Appendix H: Data Cleaning: Recoding Criteria

Table H1

Recoding Criteria for Theoretical Orientation

OCD-Specific EST	Non- OCD-Specific EST
Acceptance and Commitment Therapy	Adlerian Therapy
Cognitive Behavioral Therapy	Art Therapy
Exposure Therapy	Behavioral Therapy
	Brief Solution-Focused Therapy
	Choice Theory/Reality Therapy
	Cognitive Therapy
	Cognitive Processing Therapy
	Compassion-Focused Therapy
	Dialectical Behavioral Therapy
	Emotion-Focused Therapy
	Existential Therapy
	Eye Movement Desensitization and Reprocessing
	Feminist Therapy
	Gestalt Therapy
	Humanistic Therapy
	Hypnotherapy

	Interpersonal Therapy
	Mind-Body Psychotherapies
	Motivational Interviewing
	Play Therapy
	Psychoanalysis
	Psychodrama
	Psychodynamic
	Relational Therapy
	Sex Therapy
	Somatic Experiencing
	Unified Protocol

Table H2

Recoding Criteria for Counselor Clinical Specialty

Clinical specialty related to OCD	Clinical specialty unrelated to OCD
Anxiety	Adjustment Issues
Obsessive-compulsive disorder and related disorders	Attention-deficit hyperactivity disorder
	Autism spectrum disorder
Phobias	Bipolar disorders
	Communication issues/disorders
	Depression

	Disruptive, impulse-control, and conduct issues/disorders
	Dissociative disorders
	Elimination disorders
	Family issues
	Feeding/eating disorders
	Gender dysphoria
	Intellectual developmental disorders
	Learning issues/disorders
	Marital Issues
	Motor disorders
	Neurocognitive disorders
	Paraphilic disorders
	Personality disorders
	Psychosis
	Sexual dysfunction
	Sleep-wake issues/disorders
	Somatic symptom disorders
	Substance-related/addictive issues/disorders
	Trauma

Appendix I: Tables for Logistic Regression Assumptions

Table I1

Chi-Square Test and Symmetric Measures for OCD Subtype and Counselor Theoretical Orientation

Chi-Square Tests:	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.125	1	0.289
Continuity Correction	0.705	1	0.401

Symmetric Measures:	Value
Phi	-0.093
Cramer's V	0.093

Table I2

Chi-Square Test and Symmetric Measures for OCD Subtype and Counselor Years of Experience

Chi-Square Tests:	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.423	7	0.730

Symmetric Measures:	Value
Phi	0.184
Cramer's V	0.184

Table I3

Chi-Square Test and Symmetric Measures for OCD Subtype and Counselor Clinical Specialty

Chi-Square Tests:	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.127	1	0.722
Continuity Correction	0.018	1	0.894

Symmetric Measures:	Value
Phi	-0.031
Cramer's V	0.031

Table I4

Chi-Square Test and Symmetric Measures for Counselor Theoretical Orientation and Counselor Years of Experience

Chi-Square Tests:	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.076[a]	7	0.771

Symmetric Measures:	Value
Phi	0.177
Cramer's V	0.177

Table I5

Chi-Square Test and Symmetric Measures for Counselor Theoretical Orientation and Counselor Clinical Specialty

Chi-Square Tests:	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.144[a]	1	0.023
Continuity Correction	4.362	1	0.037

Symmetric Measures:	Value
Phi	0.199
Cramer's V	0.199

Table I6

Chi-Square Test and Symmetric Measures for Counselor Years of Experience and Counselor Clinical Specialty

Chi-Square Tests:	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.777[a]	7	0.353

Symmetric Measures:	Value
Phi	0.245
Cramer's V	0.245

Table I7

Z Residual Values for Accurately Diagnosing OCD and Recommending OCD-specific ESTs

Case	Dependent Variable	ZResid
100	Counselors Accurately Diagnosing OCD	-2.72
103	Counselors Accurately Diagnosing OCD	-2.65
24	Counselors Recommending OCD- Specific ESTs	-3.21
36	Counselors Recommending OCD- Specific ESTs	-3.26
66	Counselors Recommending OCD- Specific ESTs	-2.59
67	Counselors Recommending OCD- Specific ESTs	-3.45
78	Counselors Recommending OCD- Specific ESTs	-2.59

Table I8

Chi-Square Crosstabs for EST Theoretical Orientation and Recommending OCD-Specific ESTs

			EST Theoretical Orientation		
			Non-EST Theoretical Orientation	EST Theoretical Orientation	Total
OCD-Specific EST Recommendations	Non- OCD-Specific EST Recommendations	Count	16	5	21
		Expected Count	9.2	11.8	21.0
		% within OCD-Specific EST Recommendations	76.2%	23.8%	100.0%
		% within Theoretical orientation (OCD EST)	28.1%	6.8%	16.2%
		% of Total	12.3%	3.8%	16.2%
		Standardized Residual	2.2	-2.0	
	OCD-Specific EST Recommendations	Count	41	68	109
		Expected Count	47.8	61.2	109.0
		% within OCD-Specific EST Recommendations	37.6%	62.4%	100.0%
		% within EST Theoretical orientation	71.9%	93.2%	83.8%
		% of Total	31.5%	52.3%	83.8%
		Standardized Residual	-1.0	0.9	

Total	Count	57	73	130
	Expected Count	57.0	73.0	130.0
	% within OCD-Specific EST Recommendations	43.8%	56.2%	100.0%
	% within EST Theoretical orientation	100.0%	100.0%	100.0%
	% of Total	43.8%	56.2%	100.0%