Examining Barriers to Eating Disorder Care for Individuals with Binge Eating Disorder Symptoms and the Specific Role of Beliefs

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DEDICATION

This dissertation is foremost dedicated to my parents, my mom Chris M. Kline and my dad Albin D. Kline who believed in me more than I could ever believe in myself. To the person who doesn't think they can do it—write the dissertation, get up and face the day—If I could do it, there's no doubt you can do hard things.

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Lastly, I acknowledge and thank the participants in my research. It is through their contribution that a further understanding of barriers to care for individuals with BED symptoms was achieved through this dissertation. Moreover, the voices of participants sharing their experiences of their own thoughts and beliefs that hindered their ED care are paramount to helping further efforts to increase access to ED treatment for individuals with BED symptoms.

ABSTRACT

This dissertation examines barriers to eating disorder (ED) treatment for individuals with binge eating disorder (BED) symptoms through three interrelated studies. Study #1, a systematic review of the literature, identifies factors related to not receiving ED treatment for individuals with BED symptoms at various socioecological/systemic levels. Study #2, an online quantitative survey, uses binary logistic regression and moderation analysis to examine the relationship between having BED symptoms and delaying mental healthcare due to a fear-based belief of experiencing weight discrimination, and the association that body size/shape, through body mass index (BMI), has on this relationship. Study #3, an online qualitative questionnaire, employs content analysis to understand the thoughts and beliefs individuals with BED symptoms have surrounding BED and care that influences accessing professional ED-related treatment. The studies in this dissertation highlight specific barriers experienced by individuals with BED symptoms, with specific attention to individual level cognitions, including beliefs as limiting accessing care.

PREFACE

Individuals with BED symptoms face barriers to receiving ED treatment that hinder their long-term recovery and negatively impacts their quality of life and well-being. I have personally witnessed people experiencing these barriers. My best friend has struggled with BED symptoms for much of her life and does not believe her symptoms warrant care. When she did get care, in one instance the care was not designed to meet the needs of addressing BED symptoms. In another instance, she was told she was "overweight" and needed to lose weight, being prescribed weight-loss medications which only further exacerbated her symptoms in the long-run. I have also witnessed individuals living in larger bodies and of higher weights disproportionately be denied care when they sought help for their BED symptoms compared to individuals with lower weights or individuals with other presenting EDs, due to their symptoms not being taken seriously from treatment centers and insurance companies. I believe these experiences reflect a larger phenomenon that stigmatizes and stereotypes BED, BE, and the people who experience it with having a higher body weight, which leads to a host of problems due to pervasive weight stigma in Western cultures. This dissertation was born out of a curiosity to understand barriers for individuals with BED symptoms, specifically within individual cognitions and beliefs, as their beliefs are a necessary part of seeking and continuing to seek appropriate care. Moreso, it was driven by motives to address the role of weight stigma in oppressing individuals with BED symptoms and hindering their recovery.

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CHAPTER I

INTRODUCTION

Background

Binge eating disorder (BED) is recognized as the most prevalent eating disorder (ED) worldwide (Qian et al., 2021). According to the most recent systematic review of global prevalence rates in adult populations, the lifetime prevalence of BED is 1.53%, which is approximately four to ten times higher than the rates of other EDs, such as anorexia nervosa (AN) and bulimia nervosa (BN) (Qian et al., 2021). While recent research on subclinical BED prevalence rates in adult populations is limited, earlier studies and studies involving adolescents indicate that experiencing BED symptoms without meeting full diagnostic criteria is even more common (Hay et al., 2015; Derks et al., 2022; Sonneville & Lipson, 2017). Individuals with BE and BED exhibit high comorbidity with several other psychiatric diagnoses, including major depressive disorder (70%), and anxiety disorders (59%; Udo & Grilo, 2019). Notably, 32% of individuals with BED have co-occurring post-traumatic stress disorder (PTSD; Udo & Grilo, 2019) and 31% are at risk of suicide ideation and attempts (Bulik et al., 2021).

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) holds five criteria for a BED diagnosis with select sub-criteria: A. Recurrent episodes of BE characterized by both: 1) Eating a large amount of food in a discrete period of time, and 2) A sense of lack of control overeating during the episode; B. The BE episodes are associated with three or more of the following: 1) Eating more rapidly than normal, 2) Eating until feeling uncomfortably full, 3) Eating large amounts of food when not feeling physically hungry, 4) Eating alone because of feeling embarrassed by how much is eaten, and 5) Feeling disgusted with oneself, depressed, or very guilty after overeating; C. Marked distress regarding BE; D. The BE occurs, on

average, at least once a week for 3 months; E. The BE is not associated with regular use of compensatory behaviors and does not occur exclusively during the course of AN or BN (American Psychiatric Association [APA], 2022). Nonetheless, a lack of standardization of BE and BED exists within the body of research on EDs (Bardone-Cone et al., 2018) eliciting a spectrum of BED populations in study samples. Many of the differences occur regarding BE behavior across frequency, quantity, and time-related criteria (Goldschmidt et al., 2016). Subclinical BED (i.e., not meeting full DSM diagnostic criteria) is still often associated with clinically significant impairments in functioning, including comorbidity with other psychiatric disorders, high rates of suicide attempts, and low scores on global assessments of functioning (Lewinsohn et al., 2000; Sutphin et al., 2024), and therefore, examining a spectrum of individuals with BED symptoms is warranted.

A common misconception about BED is that it is predominantly tied to individuals of a higher body weight or those with co-occurring "obesity" (Reas, 2017). While research shows that individuals with BED symptoms, on average, have higher weights and larger body sizes/shapes than those without the disorder, many individuals with BED fall within the "normal/average" weight range and have straight or smaller bodies (Brown et al., 2018). Moreover, weight is not an indicator of experiencing BE symptoms, nor is it a diagnostic criterion of BED (APA, 2022). Individuals with BED experience similar psychiatric comorbidities regardless of BMI (Grucza et al., 2007), emphasizing BED is a serious condition, regardless of body size, shape, or weight.

Appropriate Treatment

Given the prevalence and critical psychiatric nature and presentation of BED and BED symptoms, clinical care is essential for this population. While various treatment recommendations exist within the empirical and clinical literature (e.g., Bardone-Cone, 2018; APA, 2022), appropriate ED treatment generally is approached within the framework of professional care settings specifically designed to alleviate the symptoms of the EDs (e.g., APA, 2023). Overall, ED treatment includes a combination of psychological, nutritional, and medical-based interventions (APA, 2023). Specifically, for those with BED, appropriate treatment includes addressing the mental health component as a defining factor of care (APA 2022; APA, 2023).

In accordance with the diagnostic criteria for BED (APA, 2022) and social justice research on BED that highlights oppressive attitudes and practices towards individuals with BED (e.g., Bray et al., 2022), appropriate treatment. Prior research suggests that following weight-loss related treatment protocols could obscure underlying psychological issues and exacerbate symptoms (APA, 2023; Crone et al., 2023; Kruseman et al., 2010; Puhl & Suh, 2015) by encouraging cognitions and behaviors that characterize primary psychological maladaptive components of an ED, such as attaining body image ideals through the restriction of food or compulsive use of movement and exercise (Burton & Abbott, 2019; APA, 2022). Moreover, the promotion of weight-loss interventions is grounded in weight-bias (Reas, 2017) and marginalizes individuals with larger body sizes (Bray et al., 2022).

Barriers to Care

Barriers to care for the broader ED populations have been well-documented in the literature. Systematic literature reviews on barriers to help-seeking and treatment uptake include practical barriers, such as cost and availability to services (Ali et al., 2017; Daugelat et al., 2023; Lane et al., 2020), healthcare providers limited knowledge or lack of ability to detect symptoms (Lane et al., 2020; Nicula et al., 2022; Daugelat et al., 2023), and lack of support from others (Ali et al., 2017; Bomben et al., 2022; Wacker, 2018; Nicula et al., 2022). Additionally, several systematic reviews (e.g., Lane et al., 2020; Nicula et al., 2022; Bomben et al., 2022) highlight the distinctions and perceptions of barriers between socioecological systems, stakeholders (i.e., person with an ED, caregivers, and healthcare providers), and higher and lower-order levels (e.g., person with an ED and institutions that affect receipt of ED care; Lane et al., 2020; Nicula et al., 2022; and Bomben et al., 2022), demonstrating that individual-level barriers are key factors that limit receiving treatment. These individual-level barriers include cognitions such as attitudes, knowledge and awareness, and beliefs about symptoms and treatment that encompass shame, stigma, and lack of perceived severity of symptoms, and perceptions of treatment experiences (Lane et al., 2020; Nicula et al., 2022; Bomben et al., 2022; Wacker et al., 2018; Daugelat et al., 2023; Ali et al., 2017).

Individuals with BED face considerable barriers to receiving appropriate treatment (Ali et al., 2020; Lydecker, 2024). BED is frequently underrecognized and misunderstood by the public, within healthcare settings, and by those with BED symptoms (Kornstein et al., 2016; Supina et al., 2016; Linardon et al., 2020). Other EDs are more widely recognized in treatment and clinical research domains (Bray et al., 2023;

Bray et al., 2022; Brelet et al., 2021), which may be attributed to BED symptoms not aligning with traditional ED stereotypes (Halbeisen et al., 2022) and that BED is the most recent ED to be formally classified in the DSM in 2013 (DSM-5). Research by Austin (2021) indicates that individuals with BED experience markedly longer treatment delays, with an average gap of 5.6 years between symptom onset and ED-based care, compared to 2.5 years for AN and BN and 4.4 years for BN.

Furthermore, multiple studies highlight low rates of help-seeking behavior and inadequate access to appropriate ED treatment for individuals with BED symptoms (Ali et al., 2020; Sonneville & Lipson, 2017; Linardon et al., 2020; Grammer et al., 2022; Coffino et al., 2019). For instance, a large-scale study in the United States found that among young adults with clinical or subclinical BED, only 12.0% were currently receiving care (Sonneville & Lipson, 2017). This finding was corroborated by Linardon and colleagues (2020), who found a 12.8% treatment rate among individuals seeking BE psychoeducation who also met BED diagnostic criteria. Research measuring lifetime treatment rates among individuals with BED across different ages and genders further reinforces these findings, demonstrating persistently low rates of ED-specific care (Ali et al., 2020; Linardon et al., 2020; Coffino et al., 2019). Notably, a national study in the U.S. by Coffino and colleagues (2019) found that among randomly selected individuals in the community with diagnosable BED, only 36% had received ED-specific care. Given the substantial gaps in treatment access, further investigation into the barriers preventing individuals with BED symptoms from receiving adequate care is essential to improving treatment engagement and recovery outcomes.

This Dissertation

The purpose of this dissertation was to examine barriers to receiving ED-related treatment for individuals with BED symptoms. This dissertation builds on prior ED research that highlights the low treatment rates among individuals with BED (e.g., Ali et al., 2020; Sonneville & Lipson, 2017; Hay et al., 2020; Linardon et al., 2020; Grammer et al., 2022; Coffino et al., 2019) and underscores the need for greater attention to BED populations and their specific treatment needs (e.g., Bray et al., 2022; Bray et al., 2023; Smith & Goldschmidt, 2024). While existing research has explored barriers to care for ED populations, these studies often combine BED with AN and BN, limiting insights into the potentially unique challenges faced by individuals with BED (e.g., Lane et al., 2020; Nicula et al., 2022; Bomben et al., 2022; Wacker et al., 2018; Daugelat et al., 2023; Ali et al., 2017). Additionally, prior research has identified barriers across multiple socioecological and systemic levels, including attitudes, perceptions, and beliefs at the individual level (Lane et al., 2020; Nicula et al., 2022; Bomben et al., 2022). However, there remains a gap in examining these individual-level barriers specifically within BED populations, particularly in relation to personal cognitions and beliefs. Understanding the relation of beliefs in shaping seeking or receiving treatment can provide deeper insight into the factors that prevent individuals with BED symptoms from accessing care. Therefore, the aim of this dissertation was to examine barriers to ED-related treatment among individuals with BED symptoms, and additionally, explore individual-level cognitions, including beliefs, that may influence accessing care. This objective was pursued through three interrelated studies that comprise this dissertation.

Study #1, titled “Factors Related to Not Receiving Eating Disorder Care for Individuals with Binge Eating Disorder Symptoms: A Systematic Literature Review” reviewed the current literature on individual-level, provider-level, and systemic/cultural-level factors that are associated with not receiving ED-related care for individuals with BED symptoms, as well as treatment rates among this population. The findings in this review highlighted that cognitions including beliefs at the individual and provider-levels, and perceptions and beliefs related to culture and systems- were prominent contributors to not receiving ED-related care. Additionally, stereotypes and stigma, including weight-bias across all levels, were found to be notable components of beliefs and that limited care. The findings also revealed that treatment rates for individuals with BED symptoms were exceptionally low. This chapter concludes with clinical, research, and training implications, offering alternative practices that could improve access to care for individuals with BED symptoms.

Study #2, titled “The Relationship Between Individuals with Binge Eating Disorder Symptoms and Delaying Mental Healthcare: Examining a Fear-Based Belief of Experiencing Weight-Discrimination" employed a quantitative methodological approach to investigate the relationship between having BED symptoms and a fear-based belief about weight discrimination as a barrier to receiving mental health treatment. Additionally, it examined BMI as a moderator of this relationship, such that this relationship would be strengthened dependent on the differing ranges of the BMI. Findings from this cross-sectional secondary data analysis revealed that individuals with BED symptoms had significantly greater odds of delaying care due to a fear of experiencing weight discrimination compared to those without BED symptoms, and that

this relationship was strengthened for individuals also classified with a higher BMI as "obese." This chapter concludes by emphasizing the need for targeted efforts to reduce weight-related stigma and discrimination, particularly in healthcare settings, to decrease individual belief-based barriers and increase access to mental health treatment for individuals with BED symptoms.

Study #3, titled "Individuals with Binge Eating Disorder Symptoms' Thoughts and Beliefs that Influence Getting Professional ED-Related Treatment" utilized a qualitative methodological approach to explore the role of individual cognitions—specifically, thoughts and beliefs—regarding BE symptoms, a BED diagnosis, the association of BE/BED and weight, and perceptions of treatment as a potential barrier to care. Specifically, this study explored what thoughts and beliefs influenced getting professional ED-related care among individuals with BED symptoms. Findings revealed four emergent themes: 1) Limiting Thoughts and Beliefs about BED Symptoms and/or BED; 2) Shame, Stigma, or Embarrassment about BE Symptoms, a BED Diagnosis, or Getting Care; 3) Limiting Thoughts and Beliefs about Treatment and Care for BE and BED; and 4) Limited Knowledge, Understanding, or Awareness about BE Symptoms, a Diagnosis of BED, or Related Treatment. Additionally, beliefs related to weight-bias were found to influence getting care across all themes. This chapter concludes by discussing strategies to reduce individual cognitions as barriers to care for individuals with BED, emphasizing the need to challenge stereotypes and stigma while increasing knowledge, awareness, and understanding of BED and appropriate treatment.

Epistemological Frameworks Applied to the Studies in this Dissertation

This dissertation adopts an epistemological stance that acknowledges both objective and subjective dimensions of knowledge. The research draws upon post-positivist methodologies in Papers #1 and #2 while incorporating constructivist principles in Paper #3. Papers #1 and #2 primarily adhere to a post-positivistic framework, with Paper #1 systematically synthesizing empirical findings from the literature and Paper #2 employing a quantitative design and hypothesis testing. This approach assumes that knowledge emerges from rigorous objective empirical methods (Maksimovic & Evtimov, 2023). Paper #3, though also employing methods for trustworthiness and rigor, is grounded in a constructivist framework, viewing data as predominantly subjective experiences and perspectives that contribute to contextual understanding of the research themes (Adom et al., 2016). By integrating these epistemological perspectives, the aim of this dissertation is to provide a more comprehensive understanding of barriers to care faced by individuals with BED symptoms.

Acknowledgement of Author Positionality

It is necessary to situate myself in relation to the research in this dissertation. As someone who resides in a smaller, straight-sized body and has personally experienced BED and ED treatment, I recognize that my social positioning has afforded me privileges within ED treatment settings. These privileges may limit my firsthand understanding of the stereotypes and stigma that many individuals in larger bodies with BED symptoms frequently encounter and their effect on individual cognitions and beliefs about BE symptoms, BED, and ED-specific treatment. Additionally, I identify as a non-Hispanic White, heterosexual, cisgender woman who is currently able-bodied. These social

locations influence my perspective and may shape my understanding of the structural and systemic barriers individuals with marginalized identities face in accessing ED care. I am committed to acknowledging and mitigating these potential biases throughout the research process by engaging in self-reflection, critically examining my assumptions, and assessing how they may influence my research decisions. I also actively seek diverse perspectives and center participant voices who have been historically underrepresented in research and in their struggle to find care for their BED symptoms. I recognize the limitations of my own perspectives and how they might impact the design of the studies, how I viewed and analyzed the data, and interpreted results and strive to conduct this research in a manner that limits these personal biases and is sensitive to the diverse experiences of all participants.

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CHAPTER II

STUDY #1: FACTORS RELATED TO NOT RECEIVING EATING DISORDER CARE FOR THOSE WITH BINGE EATING DISORDER SYMPTOMS: A SYSTEMATIC REVIEW OF THE LITERATURE

This article has not been published in any peer-reviewed publication. This article was revised to match the formatting requirements of the University of Tennessee Knoxville. Kiki Kline was the main author of this article and was involved in all aspects of research ideation and writing.

Abstract

BED is a serious psychiatric condition that warrants ED treatment, however, most individuals with BED symptoms will not access care. The purpose of this study was to identify factors related to not receiving ED treatment throughout the literature at the individual-level, provider-level, and systemic/cultural level. A systematic literature review was conducted up until October 31, 2023, yielding an initial 3,575 articles with a final 31 articles used for analysis. Results indicated factors related to not receiving ED treatment within all three levels. Themes at the individual level included ascribed characteristics, individual cognitions and beliefs, and help-seeking behavior. At the provider level, themes included provider type, provider cognitions and beliefs, and intervention implementation practices. At the systemic/cultural level, themes included systems of care, systemic/cultural perceptions and beliefs, and experts abetting BED. Overarching themes throughout levels reflected stereotypes and stigma surrounding BED and treatment and weight bias associated with BED and treatment. Future research should examine the role of stereotypes, stigma, and weight bias as influencing barriers to care for BED populations.

Introduction

A variety of professionals in the medical, mental health, and research fields have called for heightened awareness of eating disorders (EDs) as a public health issue (Feng et al., 2023; Austin, 2012; Carta et al., 2014; Giel et al., 2023). EDs significantly impact mental health and wellbeing, with strong associations to mortality and suicide (Arcelus et al., 2011; Tan et al., 2023), and high prevalence rates. Research on young adults show that ED risk has increased significantly from 15% to 28% between 2013 and 2021 (Daly & Costigan, 2022), with average lifetime rates of 8.4% for women and 2.2% for men (Galmiche et al., 2019). Systematic reviews of ED treatment in community cases revealed significantly low pooled proportions of treatment seeking for individuals who are diagnosed, with little improvement in the last 14 years (Hart et al., 2011; Hart et al., 2024). The two reviews showed that from 1989 to 2010, rates of treatment seeking were 23%, and from 2010 to 2024 the rates were 30%, indicating that instances of unmet needs have persisted to be strikingly low, from an average of 77% in 2011 to 70% in 2024 (Hart et al., 2011; Hart et al., 2024). Moreover, research has found that upwards of 30% perceive a need for treatment, but only 10.5% receive a diagnosis (Sonneville and Lipson, 2018).

Due to these low rates of treatment (Galmiche et al., 2019; Hart et al., 2011; Sonneville and Lipson, 2018), research has emerged to understand potential barriers to care. Systematic literature reviews on this topic reveal recurring themes that include demographic variables (Regan et al., 2016; Sinha and Warfa, 2013; Bomben et al., 2022; Nicula et al., 2022), provider, treatment, or service-related factors (Daugelat et al., 2023; Innes et al., 2017; Nicula et al., 2022; Regan et al., 2016; Bomben et al., 2022; Sinha and

Warfa, 2013), cultural and social-related stereotypes of EDs (Bomben et al., 2022; Sinha and Warfa, 2013), and shame and stigma around symptoms and seeking care (Daugelat et al., 2023; Bomben et al., 2022; Innes et al., 2017; Nicula et al., 2022; and Regan et al., 2016). For example, Black and African American, and Hispanic populations, those who are older in age, and male-identifying individuals are less likely to recognize symptoms, seek care, or be diagnosed by a medical provider (Regan et al., 2016; Sinha and Warfa, 2013; Bomben et al., 2022; Nicula et al., 2022). Systems of care are frequently reported as hindering help-seeking behavior, with insufficient availability of adequate treatment services for BED, and bias regarding symptoms and population stereotypes of the diagnosis, which include weight stigma, from frontline providers who first encounter those with BED (e.g., physicians, psychiatrists (Daugelat et al., 2023; Innes et al., 2017; Nicula et al., 2022; Regan et al., 2016; Bomben et al., 2022; Sinha and Warfa, 2013). Moreover, both the ED type and specific treatments sought are also noted as barriers. In a systematic literature review of ED treatment seeking from community samples, Hart and colleagues (2011) found that 30%-73% of those seeking treatment were for weight loss and that most of these cases were those with binge eating disorder (BED).

A review by Innes and colleagues (2017) found a paucity of research examining barriers to accessing and/or receiving treatment in specific disordered eating populations, and that specific treatment barriers may be more salient for some EDs than others. BED has the highest prevalence rates of all EDs, and a growing body of evidence supports the prevalence and clinical significance. A large-scale review of the literature found that the average point prevalence for BED is 6.9% (Galmiche et al., 2019), though other research found experiencing binge eating (BE) symptoms alone to be even more common (Dikshit

et al., 2020; Melo et al., 2015), with one study reporting up to 75% with BE and another where only 13.1% did not experience any BED symptoms (Dikshit et al., 2020).

Individuals with a BED diagnosis face significant treatment access barriers. Meeting criteria for BED is among the least likely of predictors receiving an actual ED diagnosis (Cachelin et al., 2006). Research shows the average length of time between BED symptom onset and referral for treatment is approximately 10-15 years, more than double and triple the length of time for bulimia nervosa (BN) or anorexia nervosa (AN), and other research has found BE in the absence of extreme weight control behaviors is approximately four times that of BE with purging or compensatory non-purging behaviors (Hamilton et al., 2022; Mond et al., 2006). Research reports that only 38.3% of lifetime cases with BED ever received treatment specifically for EDs (Kessler et al., 2013), however, treatment and outcome rates may be further limited due to study outcome success frequently measured as the reduction of behavioral symptoms (i.e., frequency and severity of BE episodes; e.g., Forman et al., 2023; Miskovic-Wheatley et al., 2023), negating the psychological components that are essential to ED recovery (APA, 2013). Research underlines that BE behaviors increase when not diagnosed and not receiving care (Griffiths et al., 2018), and, thus, the literature supports the need for investigation into BE specifically, targeting the barriers most appropriate to develop interventions to increasing access to care (Innes et al., 2017; Bray et al., 2022).

Conceptualizing BE

The conceptualization and treatment of BE and BED vary throughout the literature. This may in part be due to BED's formal recognition of a diagnosable ED only since 2013 in the Diagnostic and Statistical Manual, 5th Edition (American Psychiatric

Association, 2013 [APA]). There is a lack of standardization that exists within the body of research on EDs (e.g., Bardone-Cone et al., 2018) and, specifically, across the operationalization of BED criteria and assessment for BE (Goldschmidt et al., 2017). Studies with BE populations published prior to the DSM-5 and some thereafter often do not refer to their sample meeting comprehensive BED diagnostic criteria (i.e., according to the DSM-5), but rather as having an *eating problem* or meeting specific symptoms eligibility requirements (e.g., loss of control eating, eating large amounts of food in a discrete period of time; APA, 2013).

Accordingly, the continuity hypothesis of EDs is often applied as a comprehensive understanding of symptom presentation to encompass BED symptoms beyond the diagnostic criteria of the DSM. The continuity hypothesis considers EDs on a spectrum (Fitzgibbon et al., 2003), with those at one end meeting DSM diagnostic criteria, and those at the other having similar types of behavioral, physical, and cognitive symptoms, but differing in less frequency and severity (Lewinsohn et al., 2000; Striegel-Moore et al., 2008). Moreover, research has found there is little difference in the severity of psychological symptoms between clinical and subclinical groups (Striegel-Moore & Franko, 2008), and subclinical populations are still often associated with clinically significant impairments in functioning, including comorbidity with other psychiatric disorders, high rates of suicide attempts, and low scores on global assessments of functioning (Lewinsohn et al., 2000). Thus, using a conceptualization of BE inclusive of all spectrum levels, and referring to this population as individuals with BED symptoms, addresses a larger number of individuals who struggle with BE, but do not meet clinical criteria, and those who are formally diagnosed with BED.

Conceptualizing ED Treatment and Recovery

Literature shows that ED recovery markers and conceptualizations vary (de Vos et al., 2017; LaMarre et al., 2021), and subsequently so does standardization of ED treatment (Hower et al., 2022Bardone-Cone, 2018). Various recommendations are available (e.g., APA, 2023; Bray et al., 2024; Bardone-Cone, 2018; APA, 2013), though generally, ED treatment includes addressing the biological, psychological, social/environmental, and spiritual components (Sanzone, 2017; Richards et al., 2013) through a combination of mental health, nutritional, and medical-based treatments (Hilbert et al., 2017). Addressing the mental health component of an ED is critical to recovery and a defining factor of care (APA, 2023; Crone et al., 2023; Burton et al., 2017). EDs encompass primary underlying cognitions such as perfectionism, impulsivity and compulsivity, hyper-focus on body image and weight, ruminative thinking, and self-criticism (Spindler & Milos, 2007; Tan et al., 2023; Duarte et al., 2016) and highly comorbid mental health diagnoses of post-traumatic stress disorder, attention-deficit hyperactivity disorder, obsessive-compulsive disorder, anxiety, depression, non-suicidal self-injury, and substance misuse (Swanson et al., 2011; Tan et al., 2023).

In systematic literature reviews of barriers to care and EDs, the conceptualization of ED treatment emphasizes the formal and professional venues of care that are specifically designed to alleviate the symptoms of disordered eating (e.g., Hart et al., 2011; Ali et al., 2017; Bomben et al., 2022). In line with BED diagnostic criteria (APA, 2013) and stated in social justice research on BED (e.g., Bray et al., 2022), treatment does not include any type of weight-loss or weight-management care. Despite this, a breadth of research conflates weight management with BED, especially prior to the

DSM-5 acknowledgment of BED as an ED. This is problematic due to research showing that those with BED are more likely to seek and receive treatment for a weight problem than to address an ED (Hart et al., 2011). In effect, research suggests that following weight-loss related treatment protocols could obscure underlying psychological issues (Leahey & Crowther, 2008; Wilfley et al., 2003) and exacerbate symptoms (Marucci et al., 2024; Puhl & Suh, 2015) by encouraging cognitions and behaviors that characterize primary psychological maladaptive components of an ED, such as attaining body image ideals through the restriction of food or compulsive use of movement and exercise. Thus, it is warranted that the conceptualization of ED treatment for BE and BED follow the targeting of mental health related care (APA, 2023) in treating symptoms of disordered eating and further, not include treatment practices designed for weight loss.

A Comprehensive Approach to Understanding Barriers to Care

Research on EDs highlights the potential of implementing comprehensive and expansive approaches to conceptualizing barriers to care. Many use systems frameworks that delineate various levels of barriers originating from the individual experiencing symptoms and extend outwards toward the larger society (e.g., Bomben et al., 2022; Lane et al., 2019; Ferrucci and colleagues, 2023). Lane and colleagues (2019) introduced systems thinking specifically for EDs by applying a model using relational understandings between hierarchical levels of a system to understand the influence of decisions and actions made affecting barriers to care. Bomben et al. (2022) generated their findings to reflect higher-order themes (e.g., individual, socio-environmental, organizational, and contextual factors) and lower-order themes (e.g., internalized stigma and shame, symptom recognition, non-directed services, and information) that were both

internal and external factors operating across socioecological systems. Cain and colleagues (2017) target the systemic components of a proposed model of the pathway to care at both the patient and the provider levels. Ferrucci and colleagues (2023) implement the social-ecological model which conceptualizes impacts of health from the individual level, a level regarding personal relationships, the community level, and then societal. Thus, using socio-ecological models and related systems and levels-based frameworks may be an optimal way to best understand and organize findings on barriers to care.

Moreover, in considering a comprehensive and inclusive approach to research on this topic, the term "barriers to care" may present limitations on the findings throughout the literature. The definition of barriers differs among the literature on barriers to ED care (e.g., Ali et al., 2017; Nicula et al., 2022; Regan et al., 2016) and largely includes targeting specific demographic groups. Greater specificity in describing the content and the context of the research, such as "factors related to not receiving care", may instead be a better choice sentence in some cases when reporting these components. In particular, the use of "factors related to not receiving ED treatment" respects the understanding that personal identifiers (e.g., race/ethnicity) are not considered the problematic "barrier," thus not placing blame on the groups of people (e.g., male identity) who are experiencing the limitations in receiving care.

The Current Study

The present study is a systematic literature review examining factors associated with the lack of treatment for individuals exhibiting BE and BED symptoms or a diagnosis, together referred as "BED symptoms." To date, no known systematic literature review has specifically investigated the factors contributing to the absence of ED

treatment in this population. In response to this gap in the literature, the purpose of this study is to investigate, from a systems-level perspective, the factors identified in the peer-reviewed literature that contribute to the lack of professional ED treatment for BED symptoms populations. Specifically, this review seeks to address the following research question and four corresponding aims:

Research question: What factors are reported in the literature related to not receiving ED treatment for those with BED symptoms?

Aim 1: What individual-level factors are reported in the literature related to not receiving ED treatment for those with BED symptoms?

Aim 2: What provider-level factors are reported in the literature related to not receiving ED treatment for those with BED symptoms?

Aim 3: What systemic/cultural-level factors are reported in the literature related to not receiving ED treatment for those with BED symptoms?

Aim 4: What are the rates of professional ED treatment among research participants with BED symptoms?

Methods

This systematic review adhered to the Preferred Reporting Items for Systematic Reviews and Metanalyses (PRISMA) statement (Page et al., 2021).

Eligibility Criteria

Articles published in English, containing primary empirical data (or secondary data analysis), including an adult population (i.e., 18 and older), and reporting or discussing the factors that limited access to care for populations with BED symptoms were evaluated. No timeline constraints exist for publication of the articles. Articles were

required to identify factors related specifically to not receiving ED treatment from a professional for BED symptoms.

Key Variable Eligibility Criteria

Articles were required to include three key variables that met the following inclusion criteria.

A. Study Samples with Personal Experience of BED Symptoms and Frontline Professionals. Study samples were required to include participants who personally experienced BED symptoms and frontline providers who may encounter or treat patients with BED symptoms or experts in the field of EDs (i.e., researchers). Samples with BED symptoms must have been identified as distinct from samples diagnosed with related EDs such as bulimia nervosa (BN), anorexia nervosa (AN), and ED not otherwise specified (EDNOS) in studies published using the Diagnostic and Statistical Manual, Fourth Edition, Text Revision (DSM-IV-TR) and previous versions or otherwise specified feeding and eating disorders (OSFED) in studies published using the DSM, Fifth Edition (DSM-5) or DSM-5, Text Revision (DSM-5-TR). Study samples with BED symptoms were eligible if they were from Western countries and at least one participant met BED symptoms sample criteria (e.g., Liu et al., 2022; Potterton, et al., 2020). Findings must have been representative exclusively of BED symptoms samples or regarding BED symptoms from frontline providers and expert samples, or in the case that studies did not collect BED and ED symptoms via DSM classification and did not report on criteria to classify BED symptoms samples, samples included participants with BED symptoms with corresponding results distinguishing findings of factors related to not receiving ED treatment specifically for BED symptoms (e.g., Liu et al., 2022; Wacker, 2018).

BED symptoms. Samples with BED symptoms represented participants exhibiting BED symptoms and studies were required to comprise of a sample as either 1) having BED, or 2) exhibiting BED symptoms. To meet the BED symptoms criteria for samples, studies needed to reference two specific components of the DSM-5-TR diagnostic criteria for BED that characterize BE behavior and distinguish it from other EDs in order for the samples to be eligible for inclusion in this review. The first was criterion, A.: "*Recurrent episodes of BE…* (APA, 2013, p. 350)*."* The second criterion was E.: "*The BE is not associated with the recurrent use of inappropriate compensatory behaviors*… (APA, 2013, p. 350)." No frequency threshold was required for samples with BED symptoms, and therefore both threshold (those that met DSM BED frequency criteria [see APA, 2013, p. 350]) and subthreshold samples (did not meet DSM BED criteria, but experienced BED symptoms) were included.

B. Treatment, Care, and Help is Conceptualized as ED Treatment. The treatment, care, intervention, provider-type, or form of help was required to address BED symptoms as an ED. "ED treatment" is a broad term, namely due to no readily agreed upon definition of ED recovery (Bardone-Cone et al., 2018). ED treatment typically consists of various types of care, levels of care, and intervention modalities, and evidence-based recommendations for care include targeting the mental health components (Crone et al., 2023; APA, 2023). In this study, ED treatment is conceptualized as any professional-based medical or mental health care, whereas the BED symptoms are treated as mental health related (i.e., as an ED).

Articles published before formal acknowledgment of BED in the DSM-5 (2013) referencing treatment for *eating problems* were eligible if BED symptoms were

conceptualized as in need of mental health or ED-related treatment. Articles that mentioned any reference to BED symptoms as a *weight problem* with corresponding treatments such as weight loss, weight management, bariatric surgery, or exclusively for the behavioral symptoms of a weight problem were excluded. If *eating and weight problems* were combined as an outcome, the study was not eligible.

C. Factors Related to Not Receiving ED Treatment. Factors related to not receiving ED treatment were conceptualized as any outcome listed in the results section of a study that explored a relationship between experiences of BED symptoms and a limitation in access to receiving ED treatment. Eligible articles must have indicated that a component of the aim(s) of their study was to examine factors (generally speaking) related to limiting access to ED treatment or list a specific factor to further explore within populations with BED symptoms. Findings of factors must have been reported as salient to the representative eligible sample such that the results indicated statistical significance, a majority endorsement, a comparison in sample groups, or a qualitative theme.

Information Sources

CINAHL, PubMed, PsycINFO, and Academic Search Complete databases were searched with a final literature search completed on October 31st, 2023. Articles were also located through back-citations and related review articles.

Search Strategy

Search syntax was developed iteratively through pilot searches, reference to key articles, and consultation with Librarians in the Health Sciences and experts in the study of EDs.

The keyword search did not use descriptors or subject headings selected from

individual database thesauri as the results were not in the scope of this research. The search terms are specific to Boolean phrases and include both asterisks and grammatical synonyms toward ensuring all articles are included in the search. When only using the asterisk Boolean phrase for PubMed, CINAHL, and Academic Search Complete, fewer results were returned, therefore the more thorough search query was utilized (below).

((("help seeking" OR “help-seeking” OR “treatment seek*” OR “treatment seeking” OR “treatment-seeking” OR "treatment barrier*" OR "treatment barrier" OR "treatment barriers" OR “barriers to treatment” OR “barrier to treatment” OR“ barrier* to treatment” OR "treatment delay" OR "barrier to care" OR "barriers to care" OR "barrier* to care" OR "treatment engagement" OR "treatment resistance" OR "treatment naive" OR “treatment-naive” OR "treatment naïve" OR “treatment-naïve” OR "treatment access" OR "access to treatment" OR “delayed care” OR“ delayed diagnosis”) AND ("eating disorder*" OR "eating disordered" OR "eating disorders" OR "eating disorder" OR "disordered eating" OR "bulimia" OR "binge-eating" OR "binge eating" OR "loss of control eating" OR nonpurging OR “non-purging” OR "non purging" OR EDNOS OR OSFED)) OR ((Delay* OR Delay OR delays OR delayed OR barrier* OR barrier OR barriers) AND (Treatment* OR treatment OR treatments OR care) AND ("eating disorder*" OR "eating disordered" OR "eating disorders" OR "eating disorder")) OR ((“service utilization”) AND ("eating disorder*" OR "eating disordered" OR "eating disorders" OR "eating disorder" OR "disordered eating" OR "bulimia" OR "binge-eating" OR "binge eating" OR "loss of control eating" OR nonpurging OR “non-purging” OR "non purging" OR EDNOS OR OSFED))

Selection Process

The PRISMA (Page et al., 2021) chart detailing the screening process and reasons for exclusions can be found in **Figure 1.1**. The initial identification process filtered articles for English language, Human populations, peer-reviewed (PubMed filter of "peer-reviewed" was not applied due to limiting qualitative articles), and eligible publication formats (i.e., books, abstracts-only, or dissertations, or review articles that did not contribute new findings were in-eligible). Duplicate articles were removed by Author Kline and double-checked using Covidence (Covidence, n.d.), a web-based collaboration literature review software platform.

The remaining articles were screened and first scanned by their title and abstract and eliminated if not relevant to key study variables or for other clearly non-relevant study aims. Articles then underwent a full-text analysis that included additional verification through tables/figures/charts and supplementary information/materials/resources for the final eligibility of articles to be included in the review.

Study Selection

The initial search elicited 3,547 articles (See **Figure 1.1** for PRISMA Flow Diagram) identified from databases. Of those 290 were removed when filtering settings were applied in the database search and 2046 were removed as duplicates. 993 articles were excluded during the title and abstract screening. The additional search method of citation searching and back citing elicited 28 additional articles. Full-text review included both database and citation searching articles. Of the 246 articles assessed for the full-text review, 179 articles were eliminated due to study results not specific to

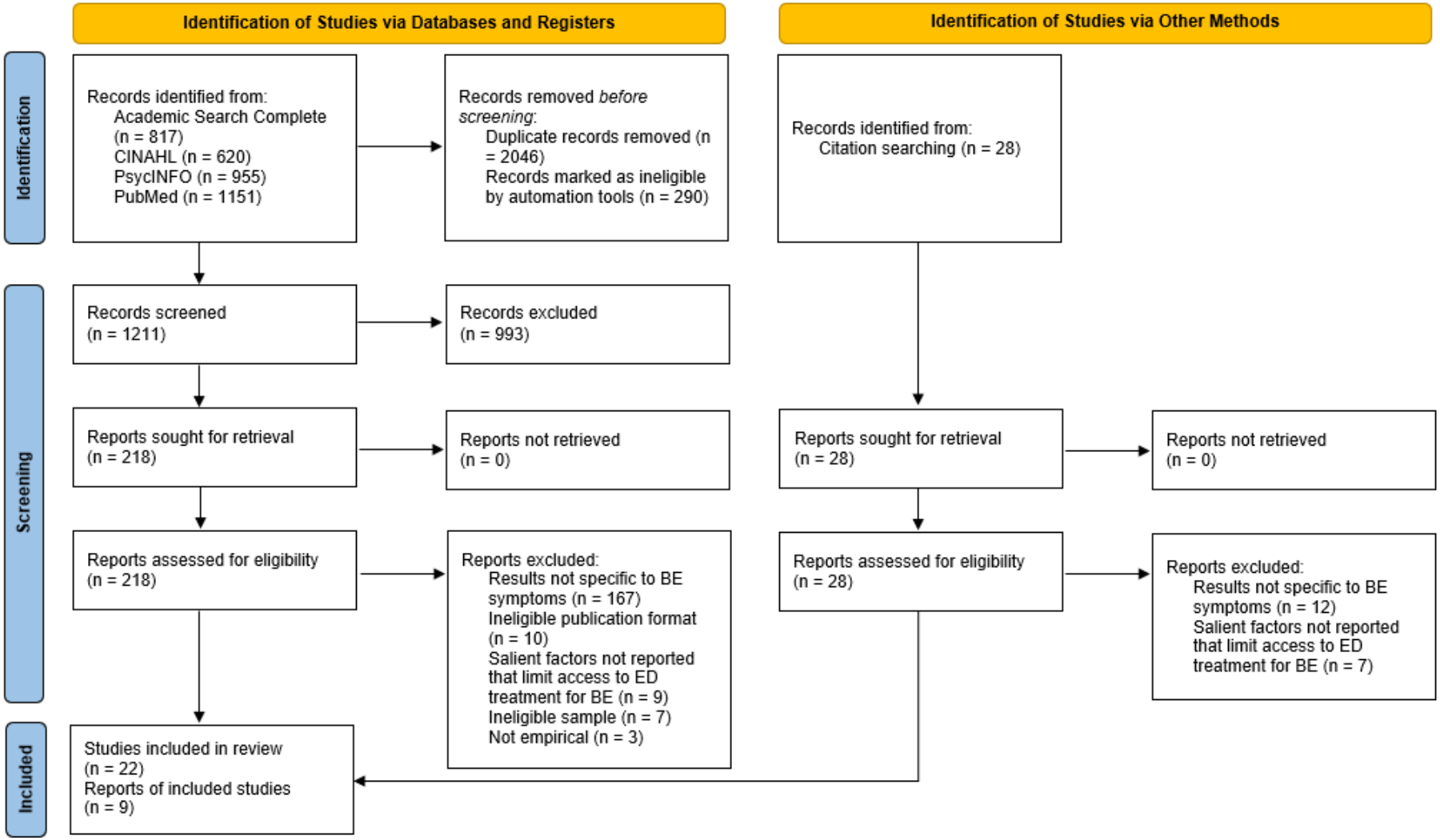

Figure 1.1. PRISMA 2020 Flow Diagram (Page et al., 2021).

individuals with BED symptoms (e.g., included other ED in analysis), 16 were eliminated due to salient factors that limited access to ED treatment for population with BED symptoms not reported, 10 eliminated because of ineligible publication format, seven eliminated due to ineligible sample, and three articles were eliminated because they were not empirical. A total of 31 articles met the criteria for inclusion.

Eligible Article Data Extraction of Factors

The scope of this review included data extraction of eligible articles' findings that presented salient factors reported from each study. The scope of this review employed criteria for defining salient factors for differing types of research designs. For data that used hypothesis testing, a p-value of .05 or greater was required. For studies only reporting frequencies, greater than 50% of the sample was required to endorse or represent a factor. For sample comparative studies, groups with either greater significance or greater frequency of factors were reported. For qualitative research, all studies were eligible if they provided a theme, subtheme, or exemplar quote from a BED symptoms sample participant.

Data Collection Process and Data Items

The organization of the data to be extracted from the literature was guided using Garrard's (2017) Matrix Method. Content was extracted into five sections: 1) Study Identification, 2) Setup of the Study, 3) Methods/Procedures, 4) Results/Outcomes, and 5) Conclusions. Column topics further divided each matrix section, with each column representing a variable of the article to be extracted. The variables extracted provided context for article eligibility represented the aims of this review, and informed study quality information.

Context for article eligibility included an indication of inclusion of key study variables (yes or no), location where key study variables are defined, and clarifying factors within the article of key study variables to qualify as eligible. Study quality information was recorded by the reported specific procedural components, the design, including sample characteristics, and the strengths and limitations of the study. Aims one through three pertained to the listed factors related to limiting access to ED treatment, measurement/operationalization of the factors, the analytic method used to examine the factor, and an indication of whether the factor was salient to the eligible sample. As per aim four, rates of receiving ED treatment for samples with BED symptoms were documented. This included only the eligible samples with BED symptoms and did not include other related ED sample groups in the study's total sample (i.e., patients with AN, BN, OSFED, etc.). The timeframe in which the patient had received treatment (i.e., currently in treatment, within the last few months, within the last year, ever/lifetime) was also recorded.

Risk of Bias in Individual Studies and Across Studies

This review utilized the Standard Quality Assessment Criteria Checklist (QualSyst; Kmet, Lee, & Cook, 2004) for quantitative and qualitative research designs scored by this author (Kline). To date (April 16, 2024) the QualSyst has been cited 2177 times by scientific papers. The QualSyst includes a separate checklist for quantitative and qualitative studies to scan articles for precision of methods, accurate intent of variable measurements, and study and reporting risk of bias. The quantitative checklist includes 14 questions scanning the article for precision of methods and accurate intent of variable measurement. The checklist of questions includes: 1) The question/objective is sufficiently described, 2) Study design is evident and appropriate, 3) Method or subject/comparison group selection or source of information/input variables is

described and appropriate, 4) Subject (and comparison group, if applicable) characteristics are sufficiently described, 5) If interventional and random allocation was possible, was it described?, 6) If interventional and blinding of investigators was possible, was it reported?, 8) Outcome and (if applicable) exposure measure(s) were well defined and robust to measurement/misclassification bias; means of assessment reported, 9) Sample size appropriate, 10) Analytic methods are described/justified and appropriate, 11) Some estimate of variance is reported for the main results, 12) Controlled for confounding, 13) Results were reported in sufficient detail, 14) Conclusions supported by the results (Kmet et al., 2004). Items five through seven pertain specifically to interventional studies and were not necessary for use in this study, they will not be listed in the corresponding table. The QualSyst qualitative checklist includes ten items: 1) Question/objective sufficiently described? 2) Study design evident and appropriate? 3) Context for the study clear? 4) Connection to a theoretical framework/wider body of knowledge? 5) Sampling strategy described, relevant, and justified? 6) Data collection methods clearly described and systematic? 7) Data analysis clearly described and systematic? 8) Use of verification procedure(s) to establish credibility? 9) Conclusions supported by the results? 10) Reflexivity of the account? (Kmet et al., 2004).

Each study was scored individually by receiving a “2” if “yes” it fulfilled the corresponding checklist item, “1” if it “partially” fulfilled the item, and “0” if it did not at all. Each article then received a summary score by calculating the mean score across all items and dividing it by 2 (Harrop, 2020). A final scoring of study bias was given between 0 and 1.0, with 0 representing maximum bias (i.e., poor evidence quality) and 1.0 presenting minimal bias (i.e., quality evidence). The rationale for the demarcation of study scores was listed in a separate column of the matrix table during scoring.

For mixed methods designs, this review used the Quality Assessment with Diverse Studies (QuADS; Harrison et al., 2021) appraisal tool scored by this author (Kline). The QuADS is an updated instrument of the original Quality Assessment Tool for Studies with Diverse Designs (QATSDD, Sirriyeh et al., 2012), which has been cited more than 270 times, however, is limited by its broad spectrum of targeting quantitative, qualitative, and mixed methods research. The updated QuADS assessment has demonstrated substantial inter-rater reliability (k=0.66), face and content validity for mixed methods or multi-modal studies (Harrison et al., 2021). The QuADS criteria include 13 items: 1) Theoretical or conceptual underpinning to the research, 2) Statement of research aim/s, 3) Clear description of research setting and target population, 4) The study design is appropriate to address the stated research aim/s, 5) Appropriate sampling to address the research aim/s, 6) Rationale for choice of data collection tool/s, 7) The format and content of data collection tool is appropriate to address the stated research aim/s, 8) Description of data collection procedure, 9) Recruitment data provided, 10) Justification for analytic method selected, 11) The method of analysis was appropriate to answer the research aim/s, 12) Evidence that the research stakeholders have been considered in research design or conduct, and 13) Strengths and limitations critically discussed (Harrison et al., 2021). The QuADS scoring includes a matrix rubric to reference with possible individual item scores of 0 to 3. Each assessment item has detailed criteria markers and examples provided for the study to receive a particular score. For example, a score of "0" would indicate the methodological component was not mentioned in the study and there is a high risk of bias, and a score of "3" indicates a detailed explanation was given and minimum risk of bias. Each study is scored individually for all 13 components of assessment and given a total score from the sum of each of the items. The sum was then divided by the number of items (i.e., 13) to generate an average

QuADS score of quality for each study (0-3; Harrison et al., 2021), and then divided by three to elicit a final score of study bias between 1.0 (minimal bias) to 0 (maximum bias).

A "strengths" column and a "limitations" column were used to document criteria for scoring. Each study was scored immediately after each article extraction and re-scored after all articles were complete. This author then compared scores and came to a consensus by individually reviewing each article. All studies were included in the synthesis of the results regardless of their QualSyst or QuADS score (Page et al., 2021). Study scores and rationale were synthesized by assessing strengths and limitations across studies to provide a wholistic view of the quality of research literature on limitations to receiving ED treatment for individuals with BED symptoms.

Synthesis of Results

Data were synthesized using guidelines from Garrard (2017). Related columns for each aim were grouped together to provide an overview of the data across studies. Variables (contents within the matrix columns) were then coded across all studies and organized first chronologically, by the research design of the study within each article (quantitative, qualitative, or mixed methods), and then by sample population (i.e., samples with BED symptoms or frontline professionals). Matrices were compared for themes and convergences or divergences down columns (extracted variable content) and across rows (studies). To answer the first three research questions, columns containing the following variables were specifically examined: "individual-level barriers", "provider-level barriers", "systemic/cultural-level barriers", "sample population", "intent of study/original barrier tested", "year" the study was published, and "qualification of ED treatment" (article components that specified the dependent variable and/or theme of the study met key variable criteria for BED symptoms). A table was constructed for

each research aim and factors under that specific variable level were first coded and then grouped by theme and subthemes.

To answer research question number four, the following variables were grouped to then calculate the rate at which the samples with BED symptoms received ED treatment: "received treatment," "sample size," "qualification of ED treatment," and "ED treatment question language (the specific question asked to participants to conceptualize ED treatment)." The samples with BED symptoms of participants who received treatment across studies that reported treatment rates were summed and divided by the total sample size with BED symptoms across studies. Rates of treatment were classified according to the timeframe in which they were measured (i.e., currently in treatment, treatment within the last two months, treatment within the last year, treatment within one's lifetime).

Results

Study Characteristics

Of the 31 articles, seven studies were qualitative, 18 studies quantitative, and six employed a mixed-method design. The sample population with BED symptoms was represented in 25 studies and the frontline professionals sample population was represented in seven studies. One study consisted of both samples with BED symptoms and frontline professionals (Kornstein et al., 2015). Convenience sampling was employed in 24 of the studies (77%), purposive sampling for 12 of the studies (39%), nine studies (29%) used random sampling methods, and three studies (10%) employed snowball sampling. Self-report surveys and questionnaires were the most common method of collecting data (n=19, 61%). The use of overlapping data was present for nine studies (29%). All studies were cross-sectional and one cross-sectional and longitudinal (Grammar et al., 2022), and all studies but one were non-experimental (Cain et al.,

2017 was quasi-experimental). All studies conducted before the release of the DSM-5 in 2013 (n=8) were of samples with BED symptoms. See **Table 1.1** for full study characteristics.

The total sample size for this review was 3786 (samples with BED symptoms = 2902, Frontline professionals = 884). Eligible study samples were derived from each article's full study sample or subsamples of the larger study, therefore not all demographic and sample characteristic information reported in each article was eligible for this review. Articles with subsamples used for this review (n=14; Ali et al., 2020; Cachelin and Striegel-Moore, 2006; Cachelin et al., 2001; Cachelin, et al., 2006; Cain et al., 2017; Coffino et al., 2019; Grammer et al., 2022; Hamilton et al., 2022; Higgins et al., 2016; Linardon et al., 2020; Marques et al., 2011; Mond et al., 2006; Mond et al., 2007; Sonneville and Lipson, 2017) are all samples with BED symptoms, with the exception of Cain et al., (2017), who's subsample were of providers who received a case vignette of BED patients. Of the subsample articles, 10 listed at least partial demographic information specifically for the subsample (Ali et al., 2020; Cachelin and Striegel-Moore, 2006; Cachelin et al., 2001; Cachelin, et al., 2006; Cain et al., 2017; Coffino et al., 2019; Hamilton et al., 2022; Higgins et al., 2016; Mond et al., 2006; Mond et al., 2007). Of the full sample articles, one study (Bray et al., 2022) only collected demographic information from 13 out of the sample size of 14, one included both samples with BED symptoms and frontline professionals (Kornstein et al., 2015), and five were qualitative studies that included both samples with BED symptoms and other EDs (Bye et al., 2018; Leavey et al., 2011; Liu et al., 2022; Potterton et al., 2020) or loved ones (Clark et al., 2023).

The total sample size for this review was 3786 (samples with BED symptoms = 2902, Frontline professionals = 884). Eligible study samples were derived from each article's full study sample or subsamples of the larger study, therefore not all demographic and sample

Table 1.1. Study characteristics.

Citation	Study Design	Sampling Design	Data Collection Method
Ali et al., 2020	Quantitative	Convenience	Self-report online survey
Bray et al., 2022	Qualitative	Purposive	Semi-structured interviews; online survey
Bye et al., 2018	Qualitative	Convenience	Online survey
Cachelin and Striegel-Moore, 2006[a]	Mixed methods	Convenience	Phone interviews; mailed self-report paper surveys
Cachelin et al., 2001[a]	Quantitative	Convenience	Phone interviews; mailed self-report paper surveys
Cachelin, et al., 2006[a]	Quantitative	Convenience	Phone interviews; mailed self-report paper surveys
Cain et al., 2017	Quantitative	Convenience; snowball	Online Case vignettes and self-report surveys
Chao et al., 2019	Quantitative	BED experts: - Convenience - General physicians: - Stratified random sampling - Nurse practitioners: - Random sampling	Mailed self-report paper surveys
Clark et al., 2023	Qualitative	Purposive; convenience	Semi-structured interviews
Coffino et al., 2019	Quantitative	Multi-stage probability sampling	Computer-assisted face-to-face interviews
Fixen et al., 2022	Qualitative	Purposive	Interpretive secondary analysis from a parent study of semi-structured interviews
Grammer et al., 2022	Quantitative	Convenience	Self-report online survey
Hamilton et al., 2022	Quantitative	Purposive; convenience	Self-report online survey; patients' clinician reports
Herman et al., 2014	Mixed methods	Purposive	In-person self-report surveys and focus groups.
Higgins et al., 2016	Quantitative	Purposive; convenience	Self-report online survey
Kornstein et al., 2015	Mixed methods	Purposive; convenience	Audio recorded patient sessions and transcription; semi-structured tele-depth interviews; self-recorded video diaries
Leavey et al., 2011	Qualitative	Random sampling; convenience	Semi-structured interviews
Linardon et al., 2020	Quantitative	Convenience	Self-report online survey
Liu et al., 2022	Qualitative	Purposive	Online survey Secondary data analysis/subsample
Marques et al., 2011	Quantitative	Purposive; convenience	Manipulation of weights from secondary data analysis of a parent study (NIMH Collaborative Psychiatric Epidemiological Studies)
Mond et al., 2006[b]	Mixed methods	Stratified random sampling	Mailed self-report paper surveys; semi-structured interviews
Mond et al., 2007 [b]	Quantitative	Stratified random sampling	Mailed self-report paper surveys
Pike et al., 2001[c]	Quantitative	Purposive; convenience	Structured interview; self-report paper questionnaires

Table 1.1. continued.

Citation	Study Design	Sampling Design	Data Collection Method
Potterton et al., 2020	Qualitative	Purposive; convenience	Self-report online questionnaires; semi-structured interviews
Sonneville and Lipson, 2017	Quantitative	Random selection; convenience	Online self-report survey
Striegel-Moore et al., 2000[c]	Quantitative	Stratified random sampling; convenience	Structured interview; self-report paper questionnaires
Striegel-Moore et al., 2004[c]	Quantitative	Stratified random sampling; convenience	Structured interview; self-report paper questionnaires
Supina et al., 2016	Quantitative	Purposive; convenience	Online case vignettes and self-report questionnaires
Wacker, 2018	Qualitative	Purposive; convenience; snowball	Semi-structured interview
Walker et al., 2020	Mixed methods	Convenience; snowball	Concept-mapping via a two-part, two-sample process of brainstorming and sorting
Wilfley et al., 2001[c]	Quantitative	Stratified random sampling; convenience	Structured interviews

[a, b, c] Denotes data from similar datasets

characteristic information reported in each article was eligible for this review (see **Table 1.2**). Articles with subsamples used for this review (n=14; Ali et al., 2020; Cachelin and Striegel-Moore, 2006; Cachelin et al., 2001; Cachelin, et al., 2006; Cain et al., 2017; Coffino et al., 2019; Grammer et al., 2022; Hamilton et al., 2022; Higgins et al., 2016; Linardon et al., 2020; Marques et al., 2011; Mond et al., 2006; Mond et al., 2007; Sonneville and Lipson, 2017) are all samples with BED symptoms, with the exception of Cain et al., (2017), who's subsample were of providers who received a case vignette of BED patients. Of the subsample articles, 10 listed at least partial demographic information specifically for the subsample (Ali et al., 2020; Cachelin and Striegel-Moore, 2006; Cachelin et al., 2001; Cachelin, et al., 2006; Cain et al., 2017; Coffino et al., 2019; Hamilton et al., 2022; Higgins et al., 2016; Mond et al., 2006; Mond et al., 2007). Of the full sample articles, one study (Bray et al., 2022) only collected demographic information from 13 out of the sample size of 14, one included both samples with BED symptoms and frontline professionals (Kornstein et al., 2015), and five were qualitative studies that included both samples with BED symptoms and other EDs (Bye et al., 2018; Leavey et al., 2011; Liu et al., 2022; Potterton et al., 2020) or loved ones (Clark et al., 2023).

Sex and gender were used interchangeably and defined in the binary by all articles except for Bray et al., 2022, and reported by 24 articles, with 57.3% (n=2168) of all article samples female, 79% (n=1567) female of the total sample consisting of samples with BED symptoms and 50% (n=386) of frontline professionals. Racial information was reported by 13 studies (42%) with the majority White (*n*=1336, 78%), followed by Black (*n*=231, 13%), and then *Other* (*n*=84, 5%). Ethnicity was reported by seven studies with non-Hispanic/Latino White as the most frequent (*n=180*, 44%), followed by Mexican American (*n*=61, 15). The average age among samples with BED symptoms was 29.5 and the average among frontline professionals and

Table. 1.2. Sample characteristics.

Citation	Sample Type	N*	Sample	Gender female (n (%))	Age (Mean (SD))	Race	Ethnicity: n (%)	Education (n (%))	BMI (Mean (SD))	Provider/Expert Profession
Ali et al., 2020	Subsample	150 (222)	BES	117 (78)	20 (2.0)	Asian: 42 (28) White: 92 (61.3) Other: 16 (10.7)	Not reported	High school or less: 97 (64.7) Some college: not reported College graduate or higher: 51 (34) Other: 2 (1.3)	24.31 (5.54)	N/A
Bray et al., 2022	Full sample	13 (14)	Providers and Experts	8 (62)	55 (10.2)	American Indian or Alaska Native: 0 (0) Asian: 1 (8) Black or African American: 0 (0) White 12 (92) More than one race 0 (0)	Hispanic or Latino 0 (0) Not Hispanic or Latino 13 (100)	Not reported	Not reported	Expert (research and academic): 6 (43) Medical Doctor (MD): 4 (31) Other frontline professionals: 4 (31)
Bye et al., 2018	Full sample	101[†] (101)	BES	101 (100)	Not reported	Not reported	Not reported	Not reported	Not reported	N/A

Table. 1.2. continued.

Citation	Sample Type	N*	Sample	Gender female (n (%))	Age (Mean (SD))	Race	Ethnicity: n (%)	Education (n (%))	BMI (Mean (SD))	Provider/Expert Profession
Cachelin and Striegel-Moore, 2006[a]	Subsample	47 (145)	BES	47 (100)	Not reported	Not reported	Mexican American: 29 (61.7) European American: 18 (38.3)	Not reported	Not reported	N/A
Cachelin et al., 2001[a]	Subsample	33 (61)	BES	33 (100)	Not reported	Not reported	Not reported	Not reported	Not reported	N/A
Cachelin, et al., 2006[a]	Subsample	52 (190)	BES	52 (100)	Not reported	Not reported	Mexican American: 32 (61.5) European American: 20 (38.5)	Not reported	Not reported	N/A
Cain et al., 2017	Subsample	79 (175)	Providers	69 (87.3)	Not reported	Eastern Asian: 7 (8.9) Western Asian: 0 (0) Middle Eastern: 2 (2.5) White: 65 (82.3) Other: 5 (6.3)	Not reported	Not reported	23.75 (4.16)	Physician: 37 (46.8) Dietitian: 16 (20.3) Medical student or registrar: 10 (12.6) Allied Health: 6 (7.6) Nurse: 6 (7.6) Psychiatrist: 2 (2.5) GP: 1 (1.3) Not reported: 1 (1.3)
Chao et al., 2019	Full sample	405 (405)	Providers and Experts	239 (59)	53.4 (11.9)[§]	Black or African American: 26 (6.4) White: 312 (77.0) Other: 63 (15.6).	Not reported	Not reported	25.7 (4.8)[§]	General HCP: 223 (55.1) Psychiatrists: 134 (33.1) BED Experts: 48 (11.9)

Table. 1.2. continued.

Citation	Sample Type	N*	Sample	Gender female (n (%))	Age (Mean (SD))	Race	Ethnicity: n (%)	Education (n (%))	BMI (Mean (SD))	Provider/Expert Profession
Clark et al., 2023	Full sample	15† (15)	BES and loved ones	14	Not reported	Not reported	Australian/Māori: 15 (100)	Not reported	Not reported	N/A
Coffino et al., 2019	Subsample	256 (622)	BES	194 (73.3)	Not reported	Not reported	Non-Hispanic Whites: 167 (73.6) Non-Hispanic Blacks: 33 (8.6) Hispanics: 44 (12.7) Other: 12 (5)	Not reported	Not reported	N/A
Fixen et al., 2022	Full sample	30 (30)	Providers and Experts	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Expert: 2 (6.7) Clinical Psychologist: 9 (30) Assistant Psychologist: 4 (13.3) Psychotherapist: 3 (10) MH support worker/Assistant psychologist: 2 (6.7) Registered Dietitian: 2 (6.7) Associate specialist Doctor: 1 (3.3) CHM social worker: 1 (3.3) CHM social worker/CBT therapist: 1 (3.3) Counselor: 1 (3.3) Family therapist: 1 (3.3) MH Nurse (NHS): 1 (3.3) Psychotherapist/counselor: 1 (3.3) Psychiatrist: 1 (3.3)

Table. 1.2. continued.

Citation	Sample Type	N*	Sample	Gender female (n (%))	Age (Mean (SD))	Race	Ethnicity: n (%)	Education (n (%))	BMI (Mean (SD))	Provider/Expert Profession
Grammer et al., 2022	Subsample	185 (1922)	BES	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	N/A
Hamilton et al., 2022	Subsample	17 (119)	BES	16 (94.12)	27.53 (10.27)	White: 17 (100)	Not reported	Not reported	35.72 (8.28)	N/A
Herman et al., 2014	Full sample	25 (25)	BES	15 (60)	42.92 (10.61)	Black/African American: 10 (40) Hispanic: 3 (12) White:12 (48)	Not reported	High school or less: 6 (24) Some college: 5 (20) College graduate or higher: 11 (44) Other: 3 (12)	37.73 (12.58)	N/A
Higgins et al., 2016	Subsample	10 (77)	BES	10 (100)	Not reported	Not reported	Hispanic/Latino: 10 (100)	Not reported	Not reported	N/A
Kornstein et al., 2015	Full sample	Providers: 11 (11) Patients: 38 (38)	Providers and BES	Providers: 0 (0) Patients: 27 (71)	Psychiatrists: not reported Patients: 36.5 (14.3)	Psychiatrists Not reported Patients African American: 2 (5) Asian: 3 (8) White: 32 (84) Hispanic: 1 (3)	Not reported	Not reported	Not reported.	Psychiatrist: 11 (100)

Table. 1.2. continued.

Citation	Sample Type	N*	Sample	Gender female (n (%))	Age (Mean (SD))	Race	Ethnicity: n (%)	Education (n (%))	BMI (Mean (SD))	Provider/Expert Profession	
Leavey et al., 2011	Full sample	13[†] (13)	BES	Not reported	Not reported	Not reported	White British: 7 Turkish Cypriot: 1 Jewish: 1 White and Asian: 1 Black European: 1 White Irish: 1 Black Caribbean: 1	Not reported	Not reported	Not reported	N/A
Linardon et al., 2020	Subsample	117 (786)	BES	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	N/A
Liu et al., 2022	Full sample	56[†] (56)	BES	48 (85.7)	23.28 (11.40)	Not reported	Not reported	Not reported	Not reported	Not reported	N/A
Marques et al., 2011	Subsample	Not reported	BES	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	N/A
Mond et al., 2006[b]	Subsample	442 (5255)	BES	442 (100)	28.94 (6.82)	Not reported	Not reported	Not reported	26.90 (6.01)		N/A
Mond et al., 2007[b]	Subsample	31 (159)	BES	31 (100)	Not reported	White: 31 (100)	Not reported	Not reported	Not reported		N/A
Pike et al., 2001[c]	Full sample	150 (150)	BES	150 (100)	31.4 (5.6)[§]	Black: 52 (35) White: 98 (65)	Not reported	High school or less: 29 (19.33) Some college: 72 (48.00) College graduate or higher: 49 (32.67)	34.7 (9.1)[§]		N/A

Table. 1.2. continued.

Citation	Sample Type	N*	Sample	Gender female (n (%))	Age (Mean (SD))	Race	Ethnicity: n (%)	Education (n (%))	BMI (Mean (SD))	Provider/Expert Profession
Potterton et al., 2020	Full sample	14[†] (14)	BES	13 (93)	20.86 (1.99)	White: 10 (71.43) Asian: 0 (0) Black: 0 (0) Mixed: 2 (14.29) Unspecified: 2 (14.29)	Not reported	Not reported	18.87 (3.23)	N/A
Sonneville and Lipson, 2017	Subsample	678 (1747)	BES	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	N/A
Striegel-Moore et al., 2001[c]	Full sample	150 (150)	BES	150 (100)	31.34 (5.56)	Black: 52 (34.7) White: 98 (65.3)	Not reported	High school or less: 29 (19) Some college: 72 (48) College graduate or higher: 49 (33)	34.17 (9.24)	N/A
Striegel-Moore et al., 2004[c]	Full sample	162 (162)	BES	162 (100)	Not reported	Black: 60 White: 102	Not reported	Not reported	Not reported	N/A
Supina et al., 2016	Full sample	278 (278)	Providers	70 (25.2)	52 (not reported)	Not reported	Not reported.	Not reported	Not reported	Family Physician: 76 (27.3 Internal Medicine: 85 (30.5) OB/GYN: 54 (19.4) Psychiatrist: 63 (22.6)

Table. 1.2. continued.

Citation	Sample Type	N*	Sample	Gender female (n (%))	Age (Mean (SD))	Race	Ethnicity: n (%)	Education (n (%))	BMI (Mean (SD))	Provider/Expert Profession
Wacker, 2018	Full sample	15 (15)	BES	15 (100)	Not reported	Not reported	Not reported	Not reported	Not reported	N/A
Walker et al., 2020	Full sample	68 (68)	Providers	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Psychologist: 19 (27.94) Counselor: 6 (8.82) Social worker: 2 (2.94) MD generalist: 5 (7.35) RD/nutritionist: 2 (2.94) Psychiatrist: 3 (4.41) Nurse: 6 (8.82) Student: 1 (1.47) No data: 10 (14.71)
Wilfley et al., 2001[c]	Full sample	145 (145)	BES	145 (100)	32.5 (5.3)[§]	Black: 47 (32.4) White: 98 (67.6)	Not reported	High school or less: 28 (19) Some college: 64 (44) College graduate or higher: 53 (37)	35.9 (5.2)[§]	N/A

Note. BES refers to binge eating sample**.**
[a, b, c] denote data from similar datasets
*Eligible Sample Size (full sample size)
[†]Sample includes other EDs.
[§]Pooled standard deviations.

experts was 53.5. Only five studies reported education levels specific to the sample population for this study with at least some college or college graduate or higher as the most common. BMI[1] was reported from 10 articles, eight from samples with BED symptoms (*m*=31.9) and two from frontline providers and experts (m=25.2). Of the seven studies that included frontline professionals, the most common profession held a Medical Degree (MD; n=774, 88.6%), 75.5% (n=660) representative of general healthcare providers/physicians/other, and 24.5% as psychiatrists (n=214).

Results of Synthesis

Aim 1: What individual-level factors are reported in the literature related to not receiving ED treatment for those with BED symptoms?

Individual-level factors related to not receiving ED treatment for those with BED symptoms were reported by 21 articles. Quantitative research designs were employed by the majority of the studies (n=13, 62.0%) and 33.3% (n=7) were published before 2013. Three organizational themes emerged describing the factor's relationship to the individual. They are "ascribed characteristics (n=9; Bray et al., 2022; Cachelin et al., 2006; Cachelin and Striegel-Moore, 2006; Coffino et al., 2019; Herman et al., 2014; Marques et al., 2011; Pike et al., 2001; Striegel-Moore et al., 2004; Wilfley et al., 2001)," "individual cognitions and beliefs (n=10; Bray et al., 2022; Bye et al., 2016; Leavey et al., 2011; Potterton et al., 2020; Ali et al., 2020; Hamilton et al., 2022; Herman et al.,

[1] BMI was a common statistic reported throughout the literature on samples with BED symptoms. For the purpose of reporting BMI in the current study, the author acknowledges the oppressive and misinformed applications of the use of the BMI and its historical roots in and currently perpetuated efforts that generate anti-fatness and weight-based prejudice (Nuttall, 2015; Pray & Riskin, 2023).

2014; Higgins et al., 2016; Linardon et al., 2020; Sonneville and Lipson, 2017)," and "help-seeking behavior (n=11; Ali et al., 2020; Cachelin et al., 2006; Cachelin and Striegel-Moore, 2006; Coffino et al., 2019; Fixsen et al., 2022; 2022; Grammer et al., 2022; Herman et al., 2014; Liu et al., Marques et al., 2011; Mond et al., 2001; Wilfley et al., 2001)." A full list of individual-level factors can be found in **Table 1.3**.

Marginalized ED ascribed characteristics represent the disproportional barriers marginalized populations experience in receiving ED treatment. This review found a variation of ascribed characteristics related to demographic variables, however, most noted were race and ethnicity and sex/gender. Many of the studies showed that populations who identified other than non-Hispanic White were more likely to be undiagnosed and untreated, subsequently with less help-seeking behavior (i.e., not engaging in behaviors to actively seek treatment). Compared to women and the female identifying gender, men were also less diagnosed, less treated, less treated for their BED symptoms as a mental health concern, and endured more years with BED symptoms before seeking help. Other ascribed characteristics of smaller/straight-sized body size, older age, LGBTQ identity, low-socioeconomic status, and generally described marginalized and underrepresented populations were also reported as less likely than non-marginalized populations to engage in or receive ED treatment.

The theme of individual cognitions and beliefs are noted perceptions and opinions personal to an individual about their symptoms and/or experiences related to ED treatment. These varied from cognitive awareness and symptom recognition as BED-related symptoms, to personal beliefs about oneself in experiencing BED symptoms, and beliefs about the treatment system and process and anticipated experiences. Factors

Table 1.3. Individual-level factors.

Ascribed Characteristics	Individual Cognitions and Beliefs	Help-Seeking Behavior
Marginalized and under-represented populations (undiagnosed and untreated)	Anticipated distress of treatment	Avoiding treatment-seeking due to fat shame
Sex/gender - Male (undiagnosed, untreated, not receiving ED-specific care/not addressing symptoms as an ED, not seeking help, endure more years with BED before seeking help)	Unable to self-identify symptoms as BED in need of professional care - Unable to self-identify symptoms due to personal lack of ED knowledge/stereotypes of an ED - Denial/failure to perceive the severity of illness - Designate symptoms as characteristic of a "weight problem" instead of an ED	Not seeking help from mental health/ED-specific providers - Not seeking help from a mental health professional (exceptionally less than AN and BN) - Not seeking treatment from ED-specific providers - Not seeking ED-specific treatment
Race/ethnicity (undiagnosed, untreated) - Mexican American (not seeking help, seeking physical treatment, - Black/African American (not seeking help, not seeking ED/MH help, treated for a weight problem) - Hispanic/Latino (not seeking help, endure more years with BED before seeking help) - Asian (not seeking help)	Cognitions about treatment/receiving help - Belief of not needing ED-specific treatment for related psychological problems - Focus on weight-loss treatment (instead of ED treatment) - Self-sufficiency/prefer to cope with problems alone - Not wanting to be a burden to others - Not believing they need help - Not recognizing they need help	Seeking help from sources other than mental health/ED-specific practitioners - Turn to family or friends instead of professionals for help (sig more than AN and BN) - Seeking help from medical doctors instead of mental health professionals o Mexican Americans seeking help from medical doctors instead of mental health practitioners - Seeking help from physicians as addressing BED symptoms for the physical health concerns - Seeking treatment for weight concerns instead of eating concerns
Age - Older (undiagnosed, untreated, not seeking help)	General self-deprecating and dismissive attitudes of symptoms - Binge eating behaviors are "just overeating" - Symptoms are a personal weakness - "I just thought I was a greedy person" - Denial/minimization of the psychological problems or medical warnings of symptoms	Not seeking help - Not seeking any form of treatment o Not seeking treatment as a Mexican American o Enduring years with BED episodes without help ▪ Men and Hispanics endure more years with BED episodes (than women and Blacks and Whites)
Body size/BMI - Higher (undiagnosed) - Lower (not seeking ED/MH-treatment)	Beliefs about self that prevent seeking-help - Negative judgements /bias/shame/stigma towards engaging in symptoms - Weight/shape/size self-stigmatization/shame	

Table 1.3. continued.

Ascribed Characteristics	Individual Cognitions and Beliefs	Help-Seeking Behavior
	- Weight/shape/size self-discrimination - Embarrassed to tell someone - Stereotypes of level of severity and perceived need for treatment	
Sexual identity - LGBTQ and nonbinary (undiagnosed, untreated)	Beliefs about others that prevent seeking-help - Anticipated weight/shape/size self-stigmatization - Anticipated weight/shape/size self-discrimination - Anticipated lack of knowledge about BED from provider	
Low-socioeconomic status/economic insecurity (undiagnosed and untreated)	Fear of losing control/fear of change	

included an inability to self-identify BED symptoms as in need of professional care, self-deprecating and dismissive attitudes of symptoms, beliefs about self and others' opinions and attitudes that influence and prevent seeking help, and specific limiting judgements about treatment, receiving help, and one's ability to be helped. These cognitions centered around a belief system that BED symptoms were a personal weakness, a stigmatizing weight-related problem that needed to be addressed as a weight issue, and not warranting professional ED care.

The theme of help-seeking behavior describes the limitations in seeking help represented by individuals with BED symptoms in relation to actively engaging in getting care. The aim(s) of several articles were to understand barriers to help-seeking behaviors, whereas the type of help-seeking was differentiated by not seeking help at all or seeking help from sources who were not professionals or not specific to treating BED symptoms as ED-related. Overall, the literature highlighted that people with BED symptoms were not seeking or intentionally avoiding ED treatment. Of the participants who did seek help, many sought help from a medical doctor (e.g., family physician, primary care physician), not from an ED-specific type of provider for ED-specific care, and to treat the behavioral symptoms of BE or for the purpose of weight loss.

Aim 2: What provider-level factors are reported in the literature related to not receiving ED treatment for those with BED symptoms?

Thirteen articles reported on provider-level factors related to not receiving ED treatment for those with BED symptoms. Most studies used quantitative designs (n=9, 69.2%), and 38.5% (n=5) were published before 2013. Three primary themes were found: "Provider type (n=4; Chao et al., 2019; Kornstein et al., 2015; Mond et al., 2007; Supina

et al., 2016)," "provider cognitions and beliefs (n=8; Bray et al., 2022; Cachelin and Striegel-Moore, 2006; Cain et al., 2017; Chao et al., 2019; Clark et al., 2023; Herman et al., 2014; Kornstein et al., 2015; Liu et al., 2022)," and "intervention implementation practices (n=10; Bray et al., 2022; Cachelin et al., 2001; Cachelin and Striegel-Moore, 2006; Chao et al., 2019; Herman et al., 2014; Kornstein et al., 2015; Mond et al., 2007; Pike et al., 2001; Striegel-Moore et al., 2000; Supina et al., 2016). The theme of provider type highlighted that specific provider professions acted as potential barriers to adequate ED-based care. Differences in cognitions of and behaviors towards individuals with BE were exhibited by medical providers and those with a Medical Degree (M.D.), such as psychiatrists, and general practitioners. They were less competent in identifying diagnostic symptoms of BE as an ED (e.g., Chao et al., 2019; Supina et al., 2016) and were reported as misaligned with patient needs in both conversation and intervention focus (e.g., Kornstein et al., 2015). Moreover, the literature showed that often non-ED knowledgeable providers, and further, non-mental health providers (e.g., OBGYN specialists) were recommending and prescribing both general mental health and eating-based treatments for BED symptoms. Though many studies targeted medical providers as the sample population, only three studies (Chao et al., 2019; Kornstein et al., 2015; Supina et al., 2016) sought to understand the identifiable differences between characteristics of a profession that might affect a treatment process. A full list of provider-level factors can be found in **Table 1.4**.

The theme of provider cognitions and beliefs summarizes that providers were generally unaware of diagnostic criteria and ED treatment options for BE or there were stigmatizing and stereotyping thoughts and attitudes that acted as barriers to adequate

Table 1.4. Provider-level factors.

Provider Type	Provider Cognitions and Beliefs	Intervention Implementation Practices
Provider bias - Systemic stigmatization from healthcare providers	Stigma and stereotypes in identifying BED symptoms as ED-related - Stereotypes of BED being "overweight" or "eating too much" - BED diagnosis stigma - Mental health diagnosis stigma - Body weight/shape/size stigma ▪ Especially in healthcare providers within the medical system - Personalizing patient symptoms ▪ "Your" binge eating, vs. "the" binge eating	Poor dialogue - Discrepancies in dialogue between patients and providers/miscommunication and misinterpretation Providers focused on weight-related issues and patients focused on emotional impacts and triggers
Differences in cognitions of and behavior towards individuals with BED symptoms - OBGYN least able to identify an individual with BED and gave most incorrect treatment referrals and recommendations - Psychiatrists differ in conversation focus than patients, use non-objective phrases to capture symptoms, and personalize BE behaviors. - General practitioners and psychiatrists differ on endorsement/identification of BED diagnostic items	Error in literacy - BED symptoms as ED-related ▪ Endorse incorrect BED diagnostic criteria ▪ Hoarding food ▪ Recurrent use of inappropriate compensatory behaviors ▪ Provider differences in diagnostic threshold for "large amount of food" ▪ Operationalizing symptoms as subjective using phrases such as "overeating" to try to capture behaviors and amounts	Conflating BE with obesity - Made obesity referrals with no ED treatment - Prescribed weight-based treatment - Treatment for a weight problem instead of an eating problem o as prescribed diet pills o especially in MA - Providing weight-related treatment interventions - Mandated movement perpetuated by the medical field - More likely to screen individuals classified as "obese" for BED, and miss those who are not
Non-mental health or ED specialists providing treatment - Receiving eating-based treatment not by a mental health professional - Receiving mental health treatment not by a mental health professional	Lack of literacy - Lack of symptom recognition - BED symptoms as ED-related ▪ Lack of symptoms awareness/inability to detect ▪ Unable to identify BED diagnosis criteria ▪ Lack of ability to identify physical complications and comorbidities to BED ▪ Unable to identify symptom severity specifier ▪ Lack of confidence in diagnosing BED - Treatment ▪ Lack of knowledge of general care for BED ▪ Lack of ability to identify various ED treatment options (besides CBT)	Not providing screenings, diagnoses, referrals, or treatments for an ED - Absence or delayed Dx - Not receiving treatment by a mental health professional - Not referring to an ED specialist - Not screening for BED - Not looking for comorbidities to inform a screening or diagnosis Not considering the comorbidity of trauma to inform screening, diagnosis, or treatment

Table 1.4. continued.

Provider Type	Provider Cognitions and Beliefs	Intervention Implementation Practices
Medical providers show bias and misunderstanding	Weight-related focus - Weight-loss treatment focus - Focus on/attention towards weight-related issues	Lack of resources for providers - Lack of visit time/attention given to patients - Lack of diagnosis and treatment materials for providers - Lack of formal training in BED assessments and Dx
	Individuals with BE in larger bodies - implicit biases, stigmatization, and discrimination among providers in the MH and ED field	Informal diagnostic and treatment methods - Not using DSM-5 criteria to make diagnosis - Providing non-evidence-based treatment for BED

care. The literature showed a lack of literacy for BED symptoms as ED-related with the inability to detect or identify symptom markers or corresponding treatment. There was also an error in literacy of BED symptoms considered as BED, which was presented as necessary to provide adequate care, either adding components (i.e., hoarding food and compensatory behaviors) or differing on subjective content stated as diagnostic criteria (e.g., what constitutes as a "large amount of food"). Provider stigma and stereotypes of BE further acted as barriers to correctly identifying BED symptoms as ED-related, and many of their beliefs were focused on BE as a "weight problem." The theme of intervention implementation practices describes the factors related to not receiving ED treatment due to the care practices toward providers' patients with BED symptoms. The literature showed a general lack of screening for, diagnosing, referring to, or treating BED symptoms as related to an ED. The use of informal diagnostic and treatment methods, such as not using DSM criteria when making mental health or ED diagnoses or prescribing or developing treatment plans with non-evidence-based ED treatments for BED symptoms were typically implemented. Evident was that providers were referring to symptoms and corresponding treatments for BED symptoms and *weight problems* or "obesity" interchangeably. Providers diagnosed individuals with BED who were in larger bodies more frequently than those with a lower BMI. Moreover, treatments or referrals to other providers were often to treat the behavioral symptoms that "caused weight gain." There was a stated need for improving implementation and intervention practices from providers, for example, due to a general lack of resources for providers, either in time and attention to give to patients or in training materials.

Aim 3: What systemic/cultural-level factors are reported in the literature related to not receiving ED treatment for those with BED symptoms?

Ten articles reported on systemic/cultural-level factors related to not receiving ED treatment for those with BED symptoms. Most studies were conducted after 2013 (n=8) and 70% (n=7) employed a qualitative (n=6) or mixed methods (n=1) research design. Three major themes of systemic/cultural-level factors emerged that included "systems of care (n=5; Liu et al., 2022; Ali et al., 2020; Bray et al., 2022; Hamilton et al., 2022; Walker et al., 2020)," "systemic/cultural perceptions and beliefs (n=5; Bray et al., 2022; Kornstein et al., 2015; Leavey et al., 2011; Potterton et al., 2020; Wacker, 2018)," and "experts abetting BED (n=4; Bray et al., 2022; Kornstein et al., 2015; Walker et al., 2020; Wilfley et al., 2001)." A full list of systemic/cultural-level factors can be found in **Table 1.5**.

Factors for not receiving ED treatment for BED symptoms represented by the theme systems of care were illustrated by insufficient structural care systems, lack of access to care, and inadequate treatments for BE. This review found that the structure and logistical workings of care systems for BE and BED were not equipped with the resources or have a clear pathway to treatment once patients sought help and/or were in some type of providers' care. Moreover, the available treatments, programs, and types of interventions were not designed for those with BE that reflected BED, and therefore, patients were receiving care that did not specifically target their symptoms. Findings also highlighted the barriers to initial access to care due to financial, practical/time, and geographical constraints.

Table 1.5. Systemic/cultural-level factors.

Systems of Care	Systemic/Cultural Perceptions and Beliefs	Experts Abetting BE
Poor structural care systems - Multiple referrals/patients being passed around - No clear pathway for known care - Length of time between seeking help and receiving care - Provider scarcity	Symptoms of BED are "not as bad" as AN or BN - Care is only warranted in a thin body - Comparison to AN (BED not as bad/deserving of care) - BED is excluded from ED discourse - EDs are only AN or BN	Lack of effort to understand nuances of BED - Lack of knowledge of the consequences of BED - Lack of understanding between the relationship of trauma/adversity and BED
Lack of Access - Financial ▪ Costs of treatment ▪ Insurance and healthcare system barriers ▪ Economic aspects that prevent treatment access - Practical ▪ No time to engage in treatment ▪ Social/and work barriers to attending treatment Geographical access to treatment services/resources	Minimizing patient experience - Not taking, understanding, and accounting for the narrative of the patient - Lack of identifying how to listen to what people are telling providers about their experience - Lack of listening to and understanding the unique experiences of individuals with BED	Specific populations are left out of consideration - Lack of inclusion of marginalized populations in information dissemination - Clinics not representative of all populations where research is conducted with BED, and where BED diagnoses and treatments are conceptualized from - Untailored clinical interventions for struggles unique to marginalized populations ▪ Men ▪ Populations other than non-Hispanic Whites - Body sizes in the "normal" and "underweight" BMI range
Inadequate available treatments for BED - Treatment programs are more equipped to serve the needs of individuals with AN or BN, instead of BED - Treatment programs are not adequately equipped to treat BED - Public health policies and recommendations that influence the type of care given (e.g., mandated movement)	Societal belief systems - Structural racism - Structural sexism - Geographical systems/norms - School systems/norms - "Diet culture" ▪ Societal body weight/size/shape ideals, stigma, and discrimination ▪ Media messaging and sociocultural ideals/expectations ▪ Movement and fitness ideals	Field of research abets BED - Research operates from an anorexic centric position - Not enough funding for BED research - Unclear as to who should fund BED research - Not enough research investigating the forms, prevalence rates, and impacts of weight bias, stigma, and discrimination on barriers to the etiology and treatment of BED - Research on BED that perpetuates stereotypes - Lack of research on marginalized populations ▪ Men ▪ Non-Hispanic Whites ▪ Smaller/straight-sized bodies
	Systemic provider bias - Systemic stigmatization from healthcare providers - MH and ED field implicit biases, stigmatization, and discrimination of individuals with BE in larger bodies ▪ Influence a lack of clinical recognition	

Table 1.5. continued.

Systems of Care	Systemic/Cultural Perceptions and Beliefs	Experts Abetting BE
	General negative judgements, bias, and shame surrounding the topic of BED	
	BED symptoms are a behavioral weakness (do not deserve of care)	
	Low severity of symptoms - BED symptoms are not to be taken seriously - Misperceptions of the severity of subclinical BED -	

Factors represented by the theme systemic/cultural perceptions and beliefs underlined the stereotypes, stigma, discrimination, and other types of biases present that were described as hindering the receipt of ED care for individuals with BED symptoms. The most frequently noted was that those with BED symptoms were *not to be taken seriously* or that they were *not as bad* as other EDs such as AN or BN. As a result, medical and mental healthcare systems seemed to be impacted by these larger systemic belief systems of what constituted an ED, who they affected, and how they should be treated.

The theme “experts abetting BED” is derived from Bray and colleagues' (2022) use of the title to describe the impact that mental health and medical “experts” have on access to and receipt of ED-based care for BED populations. Specifically, research and clinical practices were described as non-representative of samples with BED symptoms and the diverse population that experiences these symptoms. Specifically targeting the research conducted on BE and BED, biased and sweeping assumptions were reported that engendered and perpetuated structural and systemic barriers to receiving adequate care. Much of the samples used in studies where prevalence rates, diagnostic criteria, and interventions are developed did not include samples of men or other non-female identifying genders, Hispanic, Black, or other races or ethnicities other than non-Hispanic White, or smaller/straight-sized body types (e.g., BMI <25). Funding mechanisms for BED and specific study aims also followed an “anorexic-centric position (Bray et al., 2022),” that was reported as weight-biased and following stigmatizing frameworks.

Aim 4: What is the prevalence of professional ED treatment among research participants with BED symptoms?

A total of 11 studies (44% of samples with BED symptoms' articles) reported on rates of receiving ED treatment within their sample populations. Most of these studies were conducted prior to the publication of the DSM-5 in 2013 (n=6) and therefore referred to ED treatment for BED symptoms as receiving help for an "eating problem." Ten of the studies were quantitative and one was mixed methods (Cachelin et al., 2006). Five of the studies shared datasets (see **Table 1.6**).

Rates of receiving ED treatment for BED symptoms were overall low. Treatment increased with the length of time captured ranging from currently receiving treatment, receiving treatment within the last two months, receiving treatment within the last year, and ever receiving ED treatment (in one's lifetime). The overall median rate of receiving ED treatment for individuals with BED symptoms across time frames and threshold and subthreshold samples was 13.4%. The overall mean of the weighted averages across time frames and threshold and subthreshold samples was 17.7% (SD = 9.2%). Of those that met threshold BED diagnosis for studies post the official DSM-5 recognition of BED in 2013 and the met the "prospective" diagnosis for studies prior to 2013, the weighted mean across all time frames was 19.0% (SD = 9.4%; n=11; Ali et al., 2020; Wilfley et al., 2001; Grammer et al., 2022; Sonneville & Lipson, 2017; Cachelin et al., 2001; Cachelin & Striegel-Moore, 2006; Mond et al., 2007; Pike et al., 2001; Striegel-Moore et al., 2000; Linardon et al., 2020; Coffino et al., 2019), 10.4% (SD = 2.4%) for currently receiving treatment (n=3; Ali et al., 2020; Wilfley et al., 2001; Linardon et al., 2020), and 23.1% (SD = 10.1%) for lifetime treatment (n=7; Cachelin et al., 2001; Cachelin & Striegel-Moore, 2006; Mond et al., 2007; Pike et al., 2001; Striegel-Moore et al., 2000; Linardon et al., 2020; Coffino et al., 2019). Subthreshold samples were given treatment rates for

Table 1.6. Treatment rates.

Reference	n/N†	Treatment Rate (%)	Timeframe	Sample
Ali et al., 2020	2/33	6.1	Current	Community who responded to advertisement about worrying about eating, weight, or body shape, meet 1+ criteria of elevated weight and shape concerns, ED behavior, BMI <17.5, current/past ED diagnosis, current/past ED treatment. *BED determined via EDE-Q and recent BE behavior.*
Wilfley et al., 2001[a]	10/108	9.0	Current	Women in the community selected to participate in the New England Women's Health Project, meet DSM-IV BED criteria, women, age 18-40, White or Black race, BMI 27-48. *BED determined by the EDE.*
Linardon et al., 2020	15/117	12.8	Current	Individuals who went to the platform "Break Binge Eating", an information source about BE and treatment, and were 18 and older. *Probable BED determined via EDE-Q and recent BE behavior.*
Grammer et al., 2022	48/183	26.2	Within the last 2 months	Individuals who screened at risk or positive for a probable ED and completed a 2-month follow-up survey. *BED determined via Stanford-Washington University ED Screen (SWED).*
Sonneville and Lipson, 2017	62/468 16/183*	13.2 9.0*	Within the past year Within the past year	Undergraduate and graduate students from 12 colleges across the US whom had symptoms of an ED and were 18 and older. *BED subthreshold determined by no threshold AN/BN/BED or subthreshold BN, EDE-Q ≥ 2, ≥ 1 BE in past month; BED threshold determined by no threshold AN/BN, EDE-Q ≥ 2, ≥ 4 BE in past month.*
Cachelin et al., 2001[b]	1/33	3.0	Lifetime	Community participants of a prior study that have been identified as having a probable ED. *BED determined by the EDE.*
Mond et al., 2007	4/31	12.9	Lifetime	Female residents in a region in Australia aged 18-42 who met clinically significant EDE-Q. *BED then determined by EDE.*
Cachelin, and Striegel-Moore, 2006[b]	7/47	14.3	Lifetime	Women who were either Mexican American or European American participating in a larger study recruited for a women's health study and a study focused on eating problems. Aged 18-45. *BED determined by EDE.*
Pike et al., 2001 [a]	26/150	17.3	Lifetime	Women from the New England Women's Health Project community-based study whose primary diagnosis was BED. *BED determined by SCID for psychiatric status, then the EDE.*
Striegel-Moore et al., 2000[a]	8/44 6/44*	18.2 13.6*	Lifetime Lifetime	Women from the New England Women's Health Project community-based study, White or Black race, and aged 18-40. Subthreshold and threshold BED were randomly selected and matched participants with similar race and age. *Subthreshold BED criteria included BE 1/mo. for 6 mos with no regular compensatory behaviors, and threshold BED was determined by the EDE.*
Linardon et al., 2020	37/117	31.6	Lifetime	Individuals who went to the platform "Break Binge Eating", an information source about BE and treatment, and were 18 and older. *Probable BED determined via EDE-Q and recent BE behavior.*
Coffino et al., 2019	74/206	36.0	Lifetime	From the National Epidemiologic Survey on Alcohol and Related Conditions III, aged 18 years and older. *BED was determined by the NIAAA Alcohol Use Disorder and Associated Disabilities Interview Schedule-5.*

Note. Rates of treatment received are calculated by the frequencies provided from each study of the samples with threshold and subthreshold BED who saw a mental health professional or sought mental health treatment for their symptoms. Some frequencies are based off weighted averages (Coffino et al., 2019, Sonneville and Lipson, 2017). Linardon et al., 2020 are listed twice to display both timeframes of reported treatment rates.

Note continued.

**Subthreshold BED treatment rates.*
a, b, c denote data from similar datasets.
†Subsample who received treatment divided by the total eligible sample with BED symptoms.

only two of the studies (Sonneville & Lipson, 2017; Striegel-Moore et al., 2000) with a weighted average treatment rate across time frames of 9.9% (SD = 1.8%).

Risk of Bias

Studies were scored via the corresponding tool based on their methodology (see Methods section) and overall study quality was informed by the strengths and weaknesses extracted. Scores ranged from .50 (highest bias) to .95 (lowest bias) on a scale from 0.0 to 1.0 (*mean* = .80). Quantitative studies (n=18) ranged from a score of .95 (Coffino et al., 2019; Chao et al., 2019; Sonneville and Lipson, 2017; and Cain et al., 2017) to .50 (Higgins et al., 2016; *mean* = .80) with overall strong description and development of study designs and corresponding conclusions drawn from results, however, limiting sample sizes to justify the effect of the findings. Qualitative studies (n=7) ranged from a score of .95 (Clark et al., 2023 and Wacker, 2018) to .75 (Fixen et al., 2022) (*mean* = .88), with overall strong methodological design and analysis, however, reflexivity of the authors was rarely stated. Mixed method studies (n=6) ranged from a score of .87 (Kornstein et al., 2015) to .56 (Cachelin and Striegel-Moore, 2006) (*mean* = .71; see **Table 1.9**) with clearly stated research aims and appropriate study designs to address the stated aims, however, were lacking on presenting evidence that stakeholders were considered in the design or analysis. See **Table 1.7**, **Table 1.8, and Table 1.9** for detailed findings.

Discussion

The body of literature yielded factors related to not receiving ED treatment for individuals with BED symptoms throughout individual, provider, and cultural/system levels. Moreover, barriers intersected between levels, and were often similar in context,

Table 1.7. QualSyst scoring of bias for quantitative studies.

Reference	Question / objective sufficiently described?	Study design evident and appropriate?	Method of subject/comparison group selection or source of information described and	Subject/comparison group characteristics sufficiently described?	Outcome well defined and robust to measurement/misclassification bias? Means of assessment reported?	Sample size appropriate?	Analytic methods described /justified and	Some estimate of variance is reported for the	Controlled for confounding?	Results reported in sufficient detail?	Conclusions supported by the results?	Total	Bias Score
Higgins et al., 2016	2	2	1	1	1	0	0	0	2	0	2	11	0.50
Cachelin et al., 2001	2	2	1	1	2	0	0	2	1	1	2	14	0.64
Marques et al., 2011	2	1	0	0	1	2	2	2	1	1	2	14	0.64
Pike et al., 2001	2	2	2	2	2	0	0	1	1	2	1	15	0.68
Wilfley et al., 2001	1	2	1	2	1	0	2	2	1	1	2	15	0.68
Striegel-Moore et al., 2004	2	2	1	1	1	0	1	2	1	2	2	15	0.68
Cachelin, et al., 2006	2	2	2	1	1	1	1	1	1	1	2	15	0.68
Supina et al., 2016	2	1	0	1	2	1	2	2	2	2	2	17	0.77
Grammer et al., 2022	2	2	2	1	1	1	2	1	1	2	2	17	0.77
Hamilton et al., 2022	2	2	2	2	2	0	2	1	1	1	2	17	0.77
Linardon et al., 2020	2	2	2	2	2	0	0	2	2	2	2	18	0.82
Striegel-Moore et al., 2000	2	2	2	2	2	1	2	2	1	2	2	20	0.91
Mond et al., 2007	1	2	2	2	2	2	2	2	2	2	1	20	0.91
Ali et al., 2020	2	2	2	2	2	1	2	2	1	2	2	20	0.91
Cain et al., 2017	2	2	2	2	2	2	2	2	1	2	2	21	0.95
Sonneville and Lipson, 2017	2	2	2	2	2	2	2	1	2	2	2	21	0.95
Chao et al., 2019	2	2	2	2	2	1	2	2	2	2	2	21	0.95
Coffino et al., 2019	2	2	2	2	2	2	2	2	1	2	2	21	0.95

Table 1.8. QualSyst scoring of bias for qualitative studies.

Reference	Question/objective sufficiently described?	Study design evident and appropriate?	Context for the study clear?	Connection to a theoretical framework/wider body of knowledge?	Sampling strategy described, relevant, and justified?	Data collection methods clearly described and systematic?	Data analysis clearly described and systematic?	Use of verification procedure(s) to establish credibility?	Conclusions supported by the results?	Reflexivity of the account?	Total	Bias Score
Leavey et al., 2011	1	0	2	2	2	2	2	2	2	2	1.7	0.85
Wacker, 2018	2	2	2	2	2	1	2	2	2	2	1.9	0.95
Potterton et al., 2020	2	2	2	2	2	2	2	2	2	0	1.8	0.90
Bray et al., 2022	2	2	2	2	2	2	2	1	2	1	1.8	0.90
Fixen et al., 2022	2	1	2	2	1	2	2	1	2	0	1.5	0.75
Liu et al., 2022	2	2	2	1	2	2	2	1	2	1	1.7	0.85
Clark et al., 2023	2	2	2	2	1	2	2	2	2	2	1.9	0.95

Table 1.9. QuADS scoring of bias for mixed method studies.

Reference	Theoretical or conceptual underpinning to the research	Statement of research aim/s	Clear description of research setting and target population	The study design is appropriate to address the stated	Appropriate sampling to address the research aim/s	Rationale for choice of data collection tool/s	The format and content of data collection tool is appropriate to address the stated research aim/s	Description of data collection procedure	Recruitment data provided	Justification for analytic method selected	The method of analysis was appropriate to answer the	Evidence that the research stakeholders have been considered in research design or conduct.	Strengths and limitations critically discussed	Total	Bias Score
Bye et al., 2018	1	3	3	3	2	2	2	3	1	1	2	0	1.5	24.5	0.68
Cachelin and Striegel-Moore, 2006	1	3	3	2	2	1	3	1	2	0	2	0	2	22	0.56
Herman et al., 2014	1	3	3	3	2	3	3	3	1	1	2	2	2	29	0.74
Kornstein et al., 2015	2	3	3	3	1	3	3	3	3	3	3	1	3	34	0.87
Mond et al., 2006	1	3	3	2	2	1	2	3	2	2	2	1	1	25	0.63
Walker et al., 2020	3	1	2	3	2	3	1	3	2	3	3	2	3	31	0.79

such as cognitions or perceptions and beliefs and themes of stereotypes and stigma. Within each level, the following themes emerged: individual-level factor themes included ascribed characteristics, individual cognitions and beliefs, and help-seeking behavior. Provider-level themes included provider type, provider cognitions and beliefs, and intervention implementation practices. Systemic/cultural-level themes included systems of care, systemic/cultural perceptions and beliefs, and experts abetting BED. No major differences were reported between samples with BED symptoms and frontline professional sample types.

The implementation of the levels of individual, provider, and systemic/cultural was for the purpose of organizing themes to broadly understand factors related to not receiving ED treatment for individuals with BED symptoms. Rather than distinct levels and categories of themes, however, each level and the corresponding themes were found to be mutually influencing as overlapping and expanding components of and between one another. For example, many components within individual-level themes were also present throughout provider-level and systemic/cultural-level themes and factors, and visa vie with respect to all levels, themes, and factors. Thus, this discussion describes the most salient findings throughout and across the studies.

Ascribed Characteristics and Individual-Level Factors

Factors from the individual level, and in particular from ascribed characteristics denoted that those with minoritized identities face more barriers to receiving ED treatment than those who, for example, are White, female gender, and younger age. This pattern further appears throughout other themes and across provider and systemic and cultural levels. Individuals with minoritized ascribed characteristics were found to face

more barriers to ED treatment, as they were less likely to personally identify symptoms and recognize the need for professional ED treatment, seek help, be diagnosed, and receive ED treatment for BED symptoms. These factors were as especially true for non-Hispanic White races and ethnicities, which mirrors other literature on treatment rates with not only ED populations (Marques et al., 2011) but overall mental and physical healthcare (Ruiz-White et al., 2023). Moreover, genders other than binary female, particularly men, were also less likely to be diagnosed and treated, and further, less likely to be treated for BED symptoms as a mental health concern. Literature points to the stigma experienced by men in seeking both physical and mental healthcare as barriers to recovery from inadequate and non-targeted treatment delivery (Bomben et al., 2023).

Limiting Help Seeking Behavior from Individuals

On an individual level, not seeking help specifically from a professional with training to treat ED-related symptoms was a common barrier, and this finding was particularly true of marginalized samples. For example, men and Hispanic individuals endured significantly more years with a BED episode before receiving treatment, compared to women and White individuals (Coffino et al., 2019). If help was sought for BE, it typically was through professionals with no mental health (e.g., medical providers, physicians, etc.) or ED specialized practice (Grammer et al., 2022), or instead informally turning to family or friends for support (Ali et al., 2020). Medical doctors were often sought, in particular, by Mexican Americans (Cachelin et al., 2006), and primarily for the purpose of treating the BED symptoms as weight-related problems (e.g., Mond et al., 2006).

Research shows that individuals with BED symptoms want help for their symptoms, but are significantly less likely to seek help (Fitzsimmons-Craft et al., 2020; Sonneville and Lipson, 2018). Factors related to not engaging in help-seeking behavior for EDs are well-noted in the literature (e.g., Ali et al., 2020; Hart et al., 2011; Hart et al., 2023), with studies specifically aimed at understanding the populations most affected (i.e., Sinha & Warfa, 2013), the attitudes and perceptions of those related to not seeking help (Daugelat et al., 2023), systemic components (Lane et al., 2020) and other related factors that influence help-seeking (e.g., Bomben et al., 2022). Qualitative research has found that symptom awareness is a facilitator of treatment-seeking behavior (Tipton et al., 2021), however, the results of this review did not reflect this. Health behavior theories, such as the health belief model, may help further explain this discrepancy (Rosenstock, 1974), and future research on the integration of health behavior theories, and populations with BED symptoms are recommended.

Stereotyped and Stigmatized Perceptions, Cognitions, and Beliefs

Experienced stereotypes and stigma may also help explain limiting help-seeking behavior. BED symptoms and corresponding treatments were perceived with stigma across individual, provider, and systemic/cultural levels. Stereotypes, biases, and preconceptions of the symptom presentation of BE and those who experience BED symptoms showed to be a limiting factor, respective of each system-level, that, thus, impacted barriers to ED treatment via individual help-seeking behavior. These stereotypes, biases, and preconceptions of BE and BED centered around a belief system that BED symptoms are not severe/warranting of professional care, are compared as less severe than other EDs of AN or BN, and are subject to “diet culture,” a system of beliefs

that idolizes bodies and behaviors following an idyllic weight/size/shape ideal. Though these findings were evident and mutually impacted the other levels (i.e., individual and provider) and respective themes and factors, systemic/cultural-level perceptions and beliefs about BE may have had a greater downstream impact on other levels, considering the influence environmental factors have on BED and related treatment (Bray et al., 2022). This is particularly true of provider-level implementation of interventions and individual level help-seeking behaviors. Medical professional training often is lacking in ED literacy (Cain et al., 2017), reflecting the lack of research and clinical training efforts for BED (Chao et al., 2019; Bray et al., 2022; Bray et al., 2023), and research shows that biased beliefs and perceptions, including "diet culture" and weight stigmatizing attitudes exist within the helping professions (Cain et al., 2017; Herman et al., 2014; Bray et al., 2022). Studies on weight stigma also highlight that experienced stigma and bias (i.e., from providers and diet cultural ideals) influence internalized stigma (negative self-perceptions), which subsequently is associated with healthcare avoidance or delay (Puhl et al., 2021; Mensinger et al., 2018). Thus, evidence from this study suggests that individual help-seeking may be influenced by the dynamic interplay of provider-level and cultural/systemic-level factors.

Findings of this review also show that treatment interventions for BED symptoms primarily targeted the behavioral components (i.e., eating related) and attributed those behaviors to the determination of the individual; that the BE was a choice behavior or related to a lack of knowledge about symptom experiences. This review found that general individual attitudes toward populations with BED symptoms were self-deprecating, dismissive, self-blaming, and beliefs of a personal weakness. This finding

was especially evident in the provider-level theme of "provider type" from medical doctors, whereas providers impacted the treatment process by recommendations and implementation of interventions that were inadequate to treat the ED-related components of BED. Results showed that overall, biased belief systems across levels, including provider influences, hindered help-seeking behaviors for individuals.

Conflating BE with a Weight Problem

Undertones of weight stigma were a common element of the limiting belief system, that subsequently enacted individuals, providers, and systems to focus on treating BED symptoms as related to weight as opposed to a mental health concern. That weight bias was a factor in not receiving ED care in this study is surprising due to the cautious inclusion criteria of only including studies that conceptualized ED treatment as pertaining specifically to treatment for BED symptoms understood as related to an ED, and limiting studies that otherwise treated BED symptoms as a weight problem. Several studies were indeed excluded specifically for this reason. Biased and limiting cognitions, perceptions, and belief systems were often influenced by conflating BE with a weight problem and further, weight stigmatizing attitudes. This, indeed, was a barrier at all levels, which likely impacted one another bi-directionally.

Weight stigma and discrimination are common experiences for individuals with BED (Puhl and Suh, 2015). Stereotypical assumptions link BED and BE behaviors with individuals who are living in larger bodies, often conflating the condition with "obesity" (Bray et al., 2022; Hollett & Carter, 2021), despite the lack of clinical evidence for such associations (Grucza et al., 2007). Although research indicates that individuals with BED tend to have a higher average weight compared to those without such symptoms, many

individuals with BED fall within the “normal” weight range (Brown et al., 2018). Moreover, weight is neither a diagnostic criterion for BED nor an accurate indicator of the presence of BED symptoms (APA, 2013), and those with BED symptoms experience similar psychiatric comorbidities regardless of BMI (Grucza et al., 2007). Nonetheless, there remains a persistent assumption in the literature (e.g., Cachelin et al., 2001) that equate BED with higher weight, influencing treatment recommendations that prioritize weight loss over addressing the psychological and behavioral components of the disorder (Cachelin & Streigel-Moore, 2006; Supina et al., 2016).

Abetting Practices that Stereotype Symptoms and Stigmatize Weight

This review documented the abetting practices from professionals in the medical, mental health, and research fields that contribute to not receiving adequate ED treatment for BED symptoms. Research, clinical, and treatment-related engagements from professionals, especially in the ED-targeted fields were largely influenced by weight-based stereotypes and stigmas from the cultural/systemic-level related to the conflation of BED with larger bodies and subsequent treatment aims, as well as a general inadequacy of systems of care. Furthermore, studies noted that efforts made in the clinical domain to further understand the nuance and unique characteristics of BED (Burton & Abbott, 2017) and develop treatment interventions for BED symptoms may be limited by poor research practices (Bray et al., 2022; Wilfley et al., 2001). This includes an observed minimizing of patient experiences (Kornstein et al., 2015), poor sampling methods not representative of the larger population (Hart et al., 2011), a lack of centering diverse populations within the clinical domains and research process (Halbeisen et al., 2022;

Bray et al., 2022), and weight-bias in the development and reporting of research (Bray et al., 2022).

Biased research practices may have a substantial influence on barriers to care. A study by Bray et al. (2022) found that experts in the field of BED characterize, respectively, that the field of research on BED generates and perpetuates oppression within this population. This statement is reflected by a lack of research available on investigating nuanced characteristics of BE, the prevalence rates, and impacts of weight bias, stigma, discrimination, and other factors on understanding a comprehensive symptoms presentation and development of adequate treatment for BED. Bray and colleagues (2022) also highlight that research operates from an "anorexic centric position", meaning that it is embedded with biased and stigmatizing attitudes related to weight. Funding organizations such as the National Institute of Health (NIH) fund more research on BE when it is tied to "obesity" research (see a search in the NIH RePORTER database as of November 2024). A systematic literature review of randomized controlled trials on the treatment of EDs shows that a common target for BED treatment is the elimination of the BE behavior or reduction in weight (Monteleone et al., 2022). These types of practices for BED treatment largely comprise the intervention treatment research and subsequent funding efforts, and impact systemic/cultural and provider-level cognitions and beliefs about the nature of BED and corresponding treatment recommendations (Bray et al., 2022).

This review found that specific frontline professionals, such as providers treating patients as an MD showed bias and misunderstanding about BE. Patients with BED symptoms turned to physicians/general practitioners/family doctors as primary and first-

line sources of help, though, ED literature and findings from this review show that these types of providers commonly lack literacy and patient care skills specifically for the treatment of BE (e.g., Monteleone et al., 2023; Kornstein et al., 2015), and felt that greater training materials and resource efforts were needed to provide appropriate care.

Moreover, this review found that treatment systems in general, including pathways to care, were ambiguous and lacking related to the providers, types of care, modalities of care, and other related resources for specialized ED-treatment, which has been shown to be a significant barrier to getting care (Monteleone et al., 2023). Treatment systems were not adequately equipped to treat BED symptoms, instead meeting more of the needs for AN or BN (Walker et al., 2020). Literature in the field of the conceptualization of BED (Burton & Abbott, 2017) notes that unique components of BED might not be addressed in typical ED treatment. Findings from this review highlight a seeming lack of attempt to comprehensively understand individuals with BED symptoms, their etiology, and potentially unique healing methods.

Together, the findings from this review and the body of research on treatments and interventions for BED highlight that efforts in the professional domain of ED and mental healthcare may engender systemic and cultural barriers, including stereotypes and bias, that limit help-seeking behavior for ED treatment (Bray et al., 2022; Stangle al., 2019). Future research is warranted to understand weight-bias and weight-stigmatizing attitudes as a barrier to ED care.

Treatment Rates

The literature underlined that those experiencing BED symptoms received minimal ED treatment. Though the rates of receiving treatment did, indeed, increase by

the length of time measured (e.g., currently receiving treatment, ever received treatment in one's lifetime), these findings highlight that most people with BED symptoms have not or may never receive professional ED care. This reflects the broader body of research, such as Penwell et al.'s (2023) assessment of the US treatment access climate, revealing that only a minority of those with EDs receive treatment, with substantial inequities across demographic groups. Cachelin and Strigel-Moore's (2006) research on Mexican American and European American women with EDs further emphasizes this concerning trend, revealing that a large percentage do not seek or receive treatment, despite recognizing the severity of their condition. Moreover, research by Sonneville and Lipson (2017) shows that treatment rates vary between ED diagnoses, whereas those with BED and sub-threshold BED are less likely to receive care in the past year. The difference between past year and lifetime treatment rates may suggest a delay in help-seeking behavior. Moreover, studies show that people wait upwards of 15 years between the onset of their symptoms and receiving treatment (Latzer et al., 2008), with increasing symptom severity and a likelihood of long-term severe psychological and physical complications, including mortality (Vail & Wade, 2015; Mitchison et al., 2017). Thus, it is critical to employ research and intervention strategies to increase help-seeking behaviors and receive ED care.

Limitations

Several limitations may have affected the results of this review. First, the lack of a standardized conceptualization of BE and BED may have shaped the sample eligibility for each study, and thus influenced the articles that met inclusion criteria for this review. Throughout the articles, samples with BED symptoms were screened by varying

instruments, provider or researcher assessments, or under the discretion of an individual's self-report of their symptoms. Moreover, for samples referenced as meeting criteria for BED, rarely was the DSM (varying editions) utilized as a diagnostic tool. This limitation is mirrored in other systematic literature reviews (Hart et al., 2011).

Second, study eligibility criteria may have limited a comprehensive understanding of factors related to not receiving ED treatment for individuals with BED symptoms. Inclusion criteria included only samples with BED symptoms that did not engage in inappropriate compensatory or restrictive behavior, thus excluding BN-type EDs. There may have been an overlap of barriers with the symptom of binging that is comorbid with both BN and BED, however, the exclusion of BN and samples with related symptoms were ineligible to preserve the primary focus of the review on the factors related specifically to BED symptoms. Articles were also not eligible if the focus of the study or the treatment inferred was for treating BED symptoms as a weight problem. Since an inclusion criteria was the conceptualization of BED symptoms as a mental health-related concern (i.e., an ED), studies were eliminated if BE was primarily understood as a behavioral problem, and thus, studies that presented ED treatment as an intervention for weight-loss or presented weight-loss treatments for BED symptoms, even if understood as a mental health concern, were eliminated. This may be limiting for populations who first identify with a weight problem, and then secondarily with their BED symptoms as either a mental health concern or, for older studies, an eating problem (e.g., Mond et al., 2007). Inclusion criteria also were limited to Western samples due to the consistency of findings whereas most of the research available is conducted with Western samples, and findings may not be generalizable across all regions. Lastly, articles were only included if

the findings of factors related to not receiving ED treatment for BED symptoms presented salient results (see *Eligible Article Data Extraction of Factors* above) and may not fully represent all samples with BED symptoms. However, this review was designed to generate an initial awareness of factors that exist, and therefore, overarching and trending themes are most salient to this exploratory study.

Third, the overall limited reporting of demographic information for eligible study populations limits full transparency of the samples used to generate the findings of this review. Due to this review including only those with samples with BED symptoms and frontline professionals, many of the included articles did not target these sample types, or within the full sample, subsamples were taken and were not broken down by the eligible sample types for this study in the reporting of demographics and participant characteristics. BED and related BED symptoms have traditionally been lumped in with other EDs in the literature, although research shows unique components of the symptom presentation and those who experience them (Burton & Abbott, 2017; Kessler et al., 2013; Wilfley et al., 2003). Therefore, this lack of development of BE-specific populations or segregating demographic and participant characteristic information within larger ED-type studies is necessarily lacking throughout the literature base. Moreover, BMI was not often reported in the studies. Though concerns exist about the use of BMI, including oppressive applications related to weight bias (Tomiyama et al., 2016), the measure may still be valuable for informing particular barriers (i.e., related to weight stigma), individuals who are being excluded from BE research (i.e., those with smaller or straight-sized bodies), or the differences between providers treating and those experiencing BED symptoms (e.g., Kornstein et al., 2015).

Fourth, though studies were only included if they reported on factors related to not receiving ED treatment, less than half (10 of 25 samples with BED symptoms) collected data on the actual receipt of ED treatment from samples with BED symptoms. Thus, the small sample of treatment rates collected must be considered when generalizing to the larger population. Moreover, more than half of these studies (*n*=6) collected treatment rates prior to adding BED as an official ED diagnosis in the DSM-V, which could impact increased rates of not receiving ED treatment due to a universal lack of awareness of the symptoms.

Clinical, Research, and Training Implications

Problematic Practices

The factors related to not receiving ED treatment for individuals with BED symptoms highlight the clinical and research implications that exist. Many of these concerns have already been mentioned earlier in this discussion under *Abetting Practices that Stereotype and Stigmatize Weight*. Stigma, stereotypes, and misperceptions of those with BED symptoms seem to generate a myriad of downstream effects that impact receiving ED treatment. First, the presence of weight stigma and conflation of BED symptoms as weight-related problems affected the conceptualization and understanding of BE, which then subsequently seemed to govern the type of care received. Instead of providing care for BED symptoms with adequate treatment as related to an ED (APA, 2023), solutions were to address the behavioral symptoms related to the act of *eating* or conflating the symptoms with "obesity." These methods typically involve psychotherapeutic interventions (Monteleone et al., 2022), but also include intentional weight loss and dietary restriction that may exacerbate and even contribute to the onset of

an ED (Brode & Mitchell, 2019; Kruseman et al., 2010; Monteleone et al., 2022; Richards et al., 2023), such as pharmacotherapies (i.e., weight-loss medications), including the recent GLP-1 agonists (Richards et al., 2023), and weight-loss surgeries (Wadden et al., 2011; Marucci et al., 2024).

Literature suggests the use of weight-loss treatment modalities for those who experience BED symptoms is counterproductive and potentially harmful (Brode & Mitchell, 2019; Bray et al., 2022), as adverse reactions and safety concerns have been reported with weight-loss drugs and bariatric surgery (Marucci et al., 2024). BED is not contraindicated for weight-loss surgery (Marucci et al., 2024), which may be concerning since this type of permanent intervention is largely associated with negative downstream effects. These include worsening of BED symptoms, decreased quality of life, and developing or persisting psychiatric conditions, including self-harm and suicide (Kofman et al., 2010; Castaneda et al., 2019). The psychological impact of weight loss interventions may further increase behaviors and complicate the treatment of BED. For example, intentional caloric restriction can also trigger BE episodes (Luz et al., 2015), and trigger or exacerbate the underlying psychological distress of EDs (Hilbert et al., 2019). Moreover, caloric restriction is linked to cardiovascular complications, and similarly suicide ideation, and mortality (Smith et al., 2016; Fichter & Quadflieg, 2016; Westmoreland et al., 2016).

Second, BE and BED may be inaccurately understood due to a non-comprehensive representation of samples in research and clinical care (Hart et al., 2011). Clinical studies that may have been referenced to inform the conceptualization of BED have largely been unrepresentative of populations who are non-White, non-Hispanic,

non-female identifying, older age, and living in smaller and straight-sized bodies (Hart et al., 2011). This has implications for the misperception of who is affected, the typical symptom presentation, and subsequent treatment methods developed that are recommended as standards for care (Halbeisen et al., 2022; APA, 2023).

Alternative Practices

Ample opportunity exists to learn more about the unique characteristics of BE, its' etiology, and potentially nuanced healing processes and treatment modalities. Ameliorating weight bias and misperceptions of BE as a behavioral problem upstream through greater efforts to address this in research, clinical practice, and individual bias may be necessarily important to provide adequate care for BE (Bray et al., 2022). Research should prioritize the existence of weight bias and stereotyped attitudes within systemic and cultural practices of care, subsequently influencing provider interactions with patients and treatment recommendations, impacting individual perceptions and attitudes about symptom presentations and help-seeking behavior.

Future research efforts should also prioritize targeting populations who experience BED symptoms to better understand the complex and unique characteristics. Most of the studies in this review include BE populations as a subsample of EDs, which could have detracted from the distinct presentation of BED as an ED regarding binge characteristics, course, and outcomes (Wilfley et al., 2003). Moreover, a large body of research on the conceptualization of BED was conducted prior to its' official diagnosis in the DSM-5 or with bias targeting samples with higher BMIs. Moreover, understanding the conceptualization and treatment of symptoms through targeted research designs, such

as purposive qualitative research may also inform influences on the specific barriers experienced by BED populations receiving appropriate care.

Research and clinical practice efforts must also prioritize a comprehensive inclusion of identities (Halbeisen et al., 2022), especially since research points to various minoritized groups experiencing higher rates of BE and BED, such as men, older individuals, and ethnic minorities (e.g., Nagata et al., 2018; Qian et al., 2021; Smink et al., 2012; Lydecker & Grilo, 2016). In particular, this review found that non-White, non-cisgender female, older-aged, and smaller and straight-sized bodies were underrepresented in studies related to barriers to care and may have unique symptom presentations related to BE that could impact the conceptualization and treatment. Oversampling for these populations in research and prioritizing cultural competency efforts in the development of treatment modalities and protocols is warranted.

Specific training efforts to identify BED symptoms and their unique clinical presentations and treatment needs may be beneficial in also targeting frontline professionals. In particular, for providers, including physicians (Monteleone et al., 2023) and researchers who, collectively impact systemic belief systems through treatment recommendations, policies, research, and dissemination of materials related to BED symptoms and related courses of care, that in turn, may affect individual behavior to recognize symptoms and seek appropriate care. Training efforts may include addressing stereotypes and misperceptions in conflated overlap between BED symptoms and weight-related problems, APA recommendations for treatment, and appropriate referral sources for ED care, such as organizations and treatment centers that specialize in the unique characteristics of BE and BED without the use of weight-based interventions.

Conclusion

The complex characteristics of BED suggest that individuals that struggle with BED symptoms may face unique challenges related to receiving adequate care. Therefore, a systematic research review of the literature was conducted and presented factors related to not receiving ED treatment for individuals with BED symptoms on three inter-related systems-levels: individual, provider, and cultural/systemic. Themes were mutually influencing across levels and included perceptions, beliefs, and attitudes about BED symptoms that impacted receiving adequate ED treatment. Individuals with minoritized ascribed characteristics were impacted more than others. Themes of stereotypes and stigma about BE and BED, in particular, weight stigma and conflating BED symptoms with weight-related problems were present across all levels, impacting research and clinical efforts, providers' intervention implementation, and individual help-seeking behavior. Focusing efforts on understanding the unique characteristics of BE and BED, its' etiology, the populations affected, and appropriate treatment is warranted for future research and in the prevention of and healing BED symptoms.

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CHAPTER III

STUDY #2: THE RELATIONSHIP BETWEEN INDIVIDUALS WITH BED SYMPTOMS AND DELAYING MENTAL HEALTHCARE: EXAMINING A FEAR-BASED BELIEF OF EXPERIENCING WEIGHT-DISCRIMINATION

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Abstract

Individuals with BED symptoms experience individual-level barriers to care that include beliefs related to societal biases such as weight or experiences about treatment. This study explored the association between having BED symptoms and delaying mental healthcare because of a fear of experiencing weight discrimination, and examined whether BMI, a proxy for body size/shape, moderated this association. Data were collected from a secondary data analysis of an online questionnaire and analyzed from a total of 337 participants using a binary logistic regression and moderation analysis. Results indicated that individuals with BED symptoms had 1.8 times greater odds of delaying mental healthcare due to a fear-based belief of experiencing weight discrimination, but that this relationship was moderated by BMI such that there was a stronger relationship between individuals who were classified as "obese." Specifically, among individuals who were classified as "obese," those who had BED symptoms had 2.94 times greater odds of delaying care compared to those without BED symptoms. Among individuals who were classified with lower BMIs, the difference between delaying care between those with BED symptoms and those without were negligible. This study extends existing research in highlighting the connections between beliefs about weight discrimination and healthcare access and the association between larger

body sizes, higher body weight, or higher BMI and delaying or avoiding seeking treatment specifically for those with BED symptoms.

Introduction

Binge Eating Disorder (BED) is the most prevalent eating disorder (ED) worldwide, with a lifetime prevalence of 1.53% of the global population (Qian et al., 2021). It is a serious psychiatric disorder (American Psychiatric Association [APA], 2022) that warrants professional mental health care as an essential component of any recommended treatment (APA, 2023). Many individuals with BED, however, fail to receive the appropriate treatment they need (Bray et al., 2022; Ali et al., 2020; Coffino et al., 2020; Sonneville & Lipson, 2017). Oftentimes individuals with BED, or BED symptoms, are disproportionately offered treatment recommendations that include primarily focusing on reducing the BE behavior or target weight loss as primary interventions of care (Cachelin & Striegel-Moore, 2006; Mond et al., 2007; Bray et al., 2022; Bray et al., 2023; Supina et al., 2016) rather than mental health treatment. These kinds of treatments frequently have poorer outcomes than treatments that include mental health (Hilbert et al., 2020). In most cases, individuals with BED receive no care at all because they do not seek it (Ali et al., 2020; Coffino et al., 2019; Fixsen et al., 2022; Grammer et al., 2022).

Help-seeking behaviors for individuals with BED symptoms are generally low (Ali et al., 2020; Coffino et al., 2020; Sonneville & Lipson, 2017), which might be attributed to the barriers they face receiving appropriate care. These barriers include structural barriers such as inadequacies in healthcare systems for BED-specific care (Liu et al., 2022), provider barriers such as limited knowledge of BED and providing appropriate care (Clark et al., 2023), and stigma and stereotypes surrounding BED and BE behaviors across multiple domains (Kornstein et al., 2014; Herman et al., 2014; Bray

et al., 2022). Moreover, individual barriers such as personal cognitions including beliefs about their condition and related treatment have also been identified as hindering care (Ali et al., 2020; Hart et al., 2011; Kornstein et al., 2014). The research is clear that in general, individuals with BED tend to avoid or delay seeking care (Ali et al., 2020; Coffino et al., 2019; Fixsen et al., 2022; Grammer et al., 2022; Herman et al., 2014; Liu et al., 2022; Marques et al., 2011), but the literature is less clear about whether individuals with BED also delay because of weight-discrimination. The current study examines whether individuals with BED compared to those who do not have BED have a higher likelihood of delaying treatment due to potential weight discrimination.

Impacts of Weight-Related Discrimination

Weight-based discrimination refers to an act of treating someone differently because of their body size, influenced by biased or stigmatizing attitudes related to weight. A global study demonstrated that individuals classified by the BMI as "obese" had 442% greater odds of experienced weight stigma compared to those in the "normal" weight category (Prunty, et al., 2020). These experiences frequently happen in healthcare settings and can affect treatment for individuals with larger body sizes (Puhl & Heuer, 2009; Puhl et al., 2016; Phelan et al., 2015). For instance, individuals with larger bodies receive less time spent with a provider and face non-accommodating medical equipment during their care experience, such as too small of sizes with blood pressure cuffs, hospital gowns, and exam tables (Phelan et al., 2015). Individuals with larger bodies are also generally recommended weight-loss interventions as a central element of a treatment plan, regardless of the concerns or symptoms they present with (American Diabetes Association Professional Practice Committee, 2022). Patients who receive these

recommendations often experience heightened stress about their healthcare experiences due to this perceived weight-based discrimination, and that stress can contribute to avoidance of healthcare. Moreover, there is a positive relationship between weight-based healthcare stress and avoidance of healthcare (Mensinger et al., 2018).

Because individuals with BED tend to have higher body weights (Duncan et al., 2017; Brown et al., 2018), it is likely they may also experience weight-related bias (e.g., Mensigner et al., 2018; Phelan et al., 2021) that could affect their treatment seeking behaviors (Sonneville and Lipson, 2017; Linardon et al., 2020). For example, weight-based stigma and discrimination can lead to individuals misattributing problems associated with BED symptoms to weight or seeking weight-loss-related care instead of ED or related mental healthcare (Bye et al., 2018; Hart et al., 2011), making it less likely that they will seek or obtain sufficient care. Moreover, stereotypes about individuals with higher body weights, larger body sizes, or higher BMIs held by the general public can hinder help-seeking behaviors by contributing to weight bias, stigma, and discrimination (Mensinger et al., 2018; Butler et al., 2023).

Internalized Weight Stigma and Discrimination on Individual Beliefs

One process by which experiences of stigma, stereotypes and overt weight discrimination can influence help seeking behaviors is through internalization, which means the individual adopts the societal values and beliefs (e.g., stereotypes and stigma) as their own (Mensinger et al., 2018; Laliberte et al., 2022). Prior research has demonstrated that there is a relationship between experienced bias and internalization of biases, and that individual beliefs related to societal biases are linked to limitations in seeking and receiving care among individuals with BED symptoms (Mensinger et al.,

2018; Wilson et al., 2009; Ali et al., 2020; Kornstein et al., 2015; Salvia et al., 2023; Sonneville and Lipson, 2017; Linardon et al., 2020). These biases include general negative perceptions of anticipated treatment experiences such as that professional mental health or ED-specific treatment is not necessary for BED symptoms (Ali et al., 2020; Hart et al., 2011; Wilson et al., 2009) or that they will not receive targeted care (Kornstein et al., 2015; Salvia et al., 2023). These also include specifically that treatment is associated with weight such as treatment for their symptoms is primarily focused on weight-loss (Sonneville and Lipson, 2017; Linardon et al., 2020).

Building on this, individuals with BED might also develop a particular type of belief from experienced or internalized biases concerning the fear of a negative treatment experience, associated with weight, that acts as a barrier to care. For individuals with BED, experiences of weight bias related to healthcare, or experiences of weight discrimination and exposure to societal stigma, can shape expectation about the kind of care they will receive from providers (Puhl & Suh, 2015; Pearl & Puhl, 2018; Puhl et al., 2021). As a result, individuals may anticipate judgment or inadequate treatment based on their weight rather than their mental health needs. Over time, repeated encounters with weight stigma and discrimination may contribute to the development of a weight-related fear-based belief (Kornstein et al., 2015; Salvia et al., 2023; Leavey et al., 2011; Herman et al., 2014; Bye et al., 2018).

Fear-based beliefs are considered a cognitive construct intertwined with emotional factors from prior experiences (Ahmet & Lovibond, 2015; LeDoux, 2000; Butler et al., 2023). Research on fear conditioning demonstrates how past experiences and learned associations, such as weight-stigma and discrimination, can shape cognitions,

including beliefs, and subsequent responses (Ahmet & Lovibond, 2015; LeDoux, 2000; Butler et al., 2023). Moreover, fear-based beliefs are associated with anticipated and expected negative experiences of treatment, and limit receiving appropriate care (Puhl & Suh, 2015; Phelan et al., 2015; Fruh et al., 2021; Alberga et al., 2019). Because cognitions, including beliefs, play a crucial role in the onset, maintenance, and recovery process for ED populations (Trompeter et al., 2019; Brown & Levinson, 2022; Burton et al., 2018), biases that have been internalized and subsequent beliefs could affect decisions about seeking appropriate mental health treatment for individuals with BED symptoms.

While the literature demonstrates that individuals with BED often experience weight-based discrimination and may internalize these experiences (Kornstein et al., 2015; Puhl et al., 2021), this might not be true for everyone with BED symptoms. It is less likely that individuals with BED who are lower weight or have smaller body sizes or shapes will experience discrimination, internalize it, and make treatment decisions based on that internalized belief (Mensinger et al., 2018), however, this has not been tested in the literature. Thus, it is possible that body size and shape moderates the association between having BED and delaying treatment because of a fear of weight discrimination.

In the current study BMI is used as a proxy for body size/shape/weight with the intention to explore the differences in delaying mental healthcare due to fear of experiencing weight discrimination between individuals at the higher end of the body size/shape/weight spectrum, for example those who are classified as “obese,” and those with lower body size/shapes/weights. Since there are no widely agreed upon instruments to measure body size and shape in the literature (e.g., Gruszka et al., 2022; Sutcliffe et al.,

2015) BMI was utilized to provide general trends of body sizes and shapes through an easy to calculate ratio of self-reported heights and weights, generating categories of body sizes established by the World Health Organization (WHO; 2000). It is important to note that these categories do not indicate health status as utilized in healthcare settings (e.g., American Diabetic Association [ADA], 2022) but provide objective distinctions of likely body sizes.

There are distinct differences of experiences related to weight bias between individuals who are classified as “obese” and those who have lower BMIs (Prunty et al., 2020, Mensinger et al., 2018, Reas, 2017). This includes distinct differences of potentially weight-biased interactions with healthcare providers with individuals classified as either "overweight" or "obese," such as routinely being advised weight-loss interventions by medical providers (ADA, 2022). However, individuals classified as “obese” experience a greater frequency and stronger impacts of this weight bias (Prunty et al., 2022). For example, in a study of over 3,800 adults across two large, public universities, 32% of individuals classified as “obese” experienced enacted weight discrimination and 43% had weight self-stigma, compared to 8% and 23% of individuals classified as “overweight” and 5% and 10% classified as “normal” weight respectively (Prunty et al., 2020). Thus, since weight bias is more pronounced for individuals classified as "obese" than those who are classified as "overweight" or with lower BMIs (Prunty et al., 2020; Mensinger et al., 2018), it is important to understand these differences in their relation to delaying mental healthcare.

The Present Study

This study examines the association between delaying treatment due to a fear-based belief about experiencing weight discrimination and having BED or BED symptoms. Given that, in general, individuals with BED symptoms experience weight bias related to receiving care (Bray et al., 2022; Bray et al., 2023; Kornstein et al., 2015; Herman et al., 2014; Cachelin & Striegel-Moore, 2006) and may internalize those experiences more frequently than individuals without BED symptoms, a positive and significant relationship between having BED or BED symptoms and delay in care due to weight-related beliefs is expected. But, because individuals with BED represent the full spectrum of weights, body shapes, and sizes (Brown et al., 2018; Duncan et al., 2017), it is anticipated that body size and shape, as reflected in BMI, will moderate the association. It is more likely that individuals with BED who have larger body shapes/sizes classified as "obese," compared to those of "overweight," "normal/average" weight, or "underweight" will experience and internalize weight-related biases and discrimination and delay treatment because of a developed fear of discrimination. Specifically, the purpose of this research had two aims. The first aim was to examine whether individuals with BED symptoms are more likely to delay mental healthcare due to a belief relating to weight-based discrimination than individuals without BED. The second aim was to explore whether BMI moderated the association between having BED symptoms and delaying mental healthcare due to a fear-based belief about experiencing weight discrimination. To achieve this, the present study sought to test the following two hypotheses:

Hypothesis 1: Individuals with BED symptoms have greater odds of delaying mental healthcare due to a fear of experiencing weight discrimination compared to individuals without BED symptoms.

Hypothesis 2: BMI moderates the association between having BED symptoms and delaying mental healthcare due to a fear of experiencing weight discrimination, such that this association is stronger for those with a higher BMI classified as "obese" compared to those with a lower BMI.

Methods

Design

This study was a secondary data analysis of a cross-sectional survey. The survey was originally conducted as part of a larger research initiative called the Distressing Relationships to Food and Bodies study (DRFB) examining mental health, treatment-related experiences, and participant characteristics and demographics.

Procedure

Human subjects' approval was obtained from the University of Denver (project number 1766125-1; approved 6/14/2021) prior to recruitment and data collection. Participants were recruited through listservs, professional contacts, and outreach to community organizations in the field of EDs and social work academic, clinical, and advocacy domains, social media (i.e., Facebook), and snowball sampling, with increased efforts to recruit minoritized identities (e.g., races/ethnicities, gender identities, sexual orientations, body sizes, etc.) for diverse representation of the sample by emphasizing the need for minoritized respondents in recruitment materials. Data were collected July through September of 2021. Participants filled out a consent form and then were directed

to an online survey via the online data collection platform Qualtrics to complete the 20–30-minute questionnaire. The questionnaire included explanations of justification for intent to ask about sensitive questions and ended with a debriefing and listing of mental health resources to address potential emotional distress or discomfort related to the topics. Participants were compensated with eligibility to enter a lottery for 1 of 50 $20 gift cards.

Participants

Eligible participants were 18 years of age or older, had the ability to read in English, and had access to the internet. The current study analyzed data from a sub-sample of DFRB participants who indicated they had ever delayed or avoided mental healthcare in their lifetime.

There was a total of 337 participants in this study. A total of 138 participants reported having BED symptoms (44.8%). The age ranged from 18 to 75 years, with a mean age of 33.53 (*SD* = 10.49). The mean BMI was 27.99 (*SD* = 8.636) with 69.5% of the sample classified with a BMI as "underweight", "normal/average" weight, and "overweight" and 30.5% classified as "obese". A further breakdown of participant BMIs can be found in Table 1. The most frequent race/ethnicity was non-Hispanic White (54.9%), followed by Multiracial (11.9%), and Black/African American (10.1%). The majority of this sample was Female/Woman (59.1%). More than half of the participants indicated their highest level of education as having an undergraduate degree, a graduate degree, or a doctoral/professional degree (69.1%) and the most frequent income was over $100,000 (19.6%). See **Table 2.1** for detailed participant characteristic information.

Table 2.1. Participant characteristics.

Characteristic	**n**	**%**
Have BED symptoms (n = 308)	138	44.8
Delayed Mental Healthcare Due to a Fear of Weight Discrimination (n = 337)	60	17.8
Race/Ethnicity (n = 322)		
Non-Hispanic White	185	57.5
Multiracial	40	12.4
Black/African American	34	10.6
Latinx/Chicanx/Hispanic	30	9.3
Asian/Asian American	17	5.3
Other	16	5.0
Gender Identity (n = 324)		
Female	199	61.4
Other	74	22.8
Male	51	15.7
BMI (n = 243)		
"Underweight", "Normal/average" weight, "Overweight"	**169**	**69.5**
"Underweight"	12	4.9
"Normal/average" weight	102	42.0
Overweight	55	22.6
"Obese"	**74**	**30.5**
"Obesity" Class I	29	11.9
"Obesity" Class II	18	7.4
"Obesity" Class III	27	11.1

Note. Frequency counts are reported from data before multiple imputations that include the missing data.

Measures

Delay of Mental Healthcare Due to a Fear of Experiencing Weight Discrimination

Delay of mental healthcare due to a fear of experiencing weight discrimination was the outcome variable of interest for this study and was measured by a single item through a two-question process. The first question asked, "Have you delayed or avoided getting mental health care for any reason in your lifetime?" with answer options of "No" or "Yes." A second question was displayed to those who answered "Yes": "If you delayed getting needed mental health care in your lifetime, what were the reasons? (Check all that apply)." One of the response options was, "I was scared of experiencing discrimination based on my body size/shape/weight." This item was conceptualized as delaying mental healthcare due to a fear-based *belief* of experiencing weight discrimination and is referred to throughout this study as "delaying mental healthcare due to a fear of experiencing weight discrimination." An endorsement of this item (scored 1) indicated an agreement with the statement, and a non-endorsement of the item (scored 0) indicated that a delay in mental healthcare was not due to this reason.

BMI

BMI was a control variable to test *hypothesis 1* and the moderator variable to test *hypothesis 2* in this study and was calculated from self-reported current height (in inches) and weight (in pounds) and transformed from a continuous variable to a dichotomous variable. BMI is a proxy for body size and shape and relations to weight. Lower BMI ranges up to 29.99 that include "underweight", "normal/average" weight, and "overweight" were grouped into one category (scored 0; see **Appendix Table A2.1**) and higher BMI ranges of 30.00 and above that include "obesity" class I, "obesity" class II,

and “obesity” class III (collectively as “obese”) were grouped into the other category (scored 1).

Demographics

Race/ethnicity. Race/ethnicity was a control variable in this study and was chosen to account for its significant association with barriers to care for ED populations (e.g., Coffino et al., 2019; Marques et al., 2011). Race/ethnicity was recoded by collapsing single or multiple item combinations of “select all that apply” response variables to single categorical variables from ten original answer options: Black/African American, Asian/Asian American, Pacific Islander/Native Hawaiian, Alaskan Native, Native/Indigenous/American Indian/First Nations, Middle Eastern, Latinx/Chicanx/Hispanic, Non-Hispanic White, Multiracial/Biracial, and Other with a write in option. Race/ethnicity was regrouped into six categories and scored (0 – 5; see **Appendix Table A2.1**) accordingly: non-Hispanic White, Black/African American, Latinx/Chicanx/Hispanic, Asian/Asian American, Multiracial that included Multiracial/Biracial and more than one race/ethnicity selected, and Other Race/Ethnicity that included Pacific Islander/Native Hawaiian, Alaskan Native, Native/Indigenous/American Indian/First Nations, and Middle Eastern.

Gender Identity. Gender identity was a control variable in this study and was chosen to account for its significant association with barriers to care for ED populations (e.g., Coffino et al., 2019; Marques et al., 2011). Gender identity was recoded by collapsing single or multiple item combinations of “select all that apply” response variables to single categorical variables from 14 original answer options: Female/Woman, Male/Man, Transwoman, Transfeminine, Transman, Transmasculine,

Nonbinary, Gender Queer, Agender, Gender Fluid, Gender Nonconforming (GNC), Transgender/Trans, Multiple Genders, Other/Additional with an open-ended answer option. Gender identity was regrouped into three categories and scored accordingly (0 – 2; see **Appendix Table A2.1**): Female/Woman, Male/Man, and Other Gender Identity.

Analysis

Data were prepared and analyzed using SPSS for Windows Version X (IBM Corp, 2023). Race/ethnicity and gender identity variables were coded for multivariate analysis using the group with the largest frequency as the comparison variable (i.e., non-Hispanic White and Female/Woman respectively). Binary logistic regression assumptions were checked with cross-tabulations showing adequate distributions within the independent variables' categories and the outcome variable, as well as for no significant multicollinearity between the independent variables.

All variables except for BMI had less than 10% missing data. BMI had an exceptionally high rate of missing data (n = 94, 27.9%). Of the 94 participants with missing BMIs, 51 (54.3%) were of those with BED symptoms, 40 (42.6%) did not have BED symptoms, and 3 (3.2%) did not indicate whether or not they had BED symptoms (i.e., missing data for the BED symptoms variable), showing a fairly equal representation of BMI missingness across BED categories. Considering the proportion of missingness in the BED symptoms variable when intersecting cases with the BMI variable, there was a difference of 36.7% (from 138 to 87 cases; see the **Appendix Figure A2.1**) of the sample size due to missing BMI data with those who had BED symptoms and a difference of 17.6% (from 170 to 140 cases) for those who did not have BED symptoms. Thus, there was a large discrepancy between those with BED symptoms and those without in terms

of missing data, whereas those with BED symptoms had a greater proportion of missing data than those without BED symptoms, illustrating a pattern of data not missing completely at random (MCAR). To verify this pattern, little's MCAR test was conducted for patterns of missingness, showing a significant finding ($\chi^2(26, N = 337) = 45.04$, $p = .012$), indicating data were not MCAR. The intersection of BED with the BMI variable also presented a substantial amount of missing data for the outcome variable of delaying mental healthcare due to a fear of experiencing weight discrimination, with 46.7% missingness (from 60 endorsements of this item to 32; see the **Appendix Figure A2.1**). Therefore, recommended imputation of missing data for data not MCAR and with a large amount of missing data was applied for all variables using Multiple Imputation (MI; Pereira et al., 2024; Enders, 2010). MI included 35 imputations of the original complete data, as recommended by Enders (2010).

Chi-square tests of association were first utilized to identify the relationship between BED symptoms and delay of mental healthcare due to a fear of weight discrimination. To test the first hypothesis of the main effects between BED symptoms and delay of mental healthcare due to a fear of weight discrimination, BED symptoms was regressed on a binary logistic regression model, including control variables of race/ethnicity, gender identity, and BMI, with delay of mental healthcare due to a fear of weight discrimination as the outcome variable. To test the second hypothesis, BMI was examined as a moderator variable by way of a test of the interaction between BED symptoms and BMI. BED symptoms and BMI were multiplied (BED symptoms*BMI) to create an interaction term, which was added to the variables in the main effects model and regressed on a second binary logistic regression model.

Results of the analyses for hypothesis testing were drawn from the pooled results across the complete data and multiply imputed data sets. Chi-square values and corresponding p-values for model fit were calculated with the recommended formula for combining results from multiply imputed categorical data, where it is suggested to use F-ratios as the test statistics. Classifying cases as percent correct were averaged from the pooled MI values.

Following recommendations by Ratitch and colleagues (2013) for handling and reporting results with data not MCAR, a sensitivity analysis was done on the complete data (i.e., data without MI) for hypothesis one and hypothesis two to compare findings (Ratitch et al., 2013).

Significance for p-values were set at p=.10 to showcase potential trends and account for potential Type II errors, treating this research as an exploratory study (Betensky, 2019).

Results

Hypothesis 1: *Those with BED symptoms have greater odds of delaying mental healthcare due to a fear of experiencing weight discrimination compared to those without BED symptoms.*

A total of 60 (17.8%) out of 337 participants delayed mental healthcare due to a fear of experiencing weight discrimination. The findings from the binary logistic regression that individuals with BED symptoms would have greater odds of delaying mental healthcare due to a fear of experiencing weight discrimination compared to those without BED symptoms, including the control variables, were consistent with hypothesis 1. The chi-square value from the omnibus test of model coefficients showed the overall

model was statistically significant (χ^2 = 74.55, F(9, 278) = 5.94, p < 0.001). The model performed well, correctly classifying 89.9% of cases. The test of BED symptoms as a main effect for mental health treatment delay due to a fear of weight discrimination was significant at the 0.10 level (Wald = 3.16, *p* = .075). The likelihood value indicated that those with BED symptoms had greater odds of delaying mental healthcare due to a fear of weight discrimination by nearly 1.8 times, relative to the odds of those without BED symptoms [odds ratio (OR) = 1.79, 95% *Confidence interval* (CI; 0.94, 3.43)] (see Table 2). However, the CI of the range of ORs with 95% confidence within the population includes 1.00, which indicates that having BED symptoms may have no effect on delaying care.

Hypothesis 2: *BMI moderates the association between having BED symptoms and delaying mental healthcare due to a fear of experiencing weight discrimination, such that this association is stronger for those with a higher BMI classified as "obese" compared to those with a lower BMI.*

Of those that had BED symptoms, 51 (58.6%) were classified as "underweight", "normal/average" weight, or "overweight" and 36 (41.4%) were classified as "obese" (see **Appendix Figure A2.1**). The findings from the binary logistic regression moderation analysis that BMI moderates the relationship between BED symptoms and delaying mental healthcare due to a fear of experiencing weight discrimination were consistent with hypothesis 2. The chi-square omnibus test of model coefficients and F-test statistic for the overall interaction model was significant (χ^2 = 79.18, F(10, 297) = 5.12, p < 0.001). The chi-square change statistic and F-test statistic for this model compared to the main effects model was statistically significant at the 0.10 level (χ^2 =

4.62, F(1, 143) = 2.96, p = 0.088), indicating a better model fit than the main effects model. This model correctly classified 90.0% of cases, performing slightly better than the main effects model.

There was a statistically significant interaction effect found at the 0.10 level (Wald = 2.95, *p* = .086; see **Table 2.2**) for BMI on the main effects relationship between BED symptoms and delaying mental healthcare due to a fear of experiencing weight discrimination. The effect between BED symptoms and delay of care due to a fear of experiencing weight discrimination differs at the two levels of the BMI variable (OR = 3.88, 95% *CI* [0.82, 18.31]), where having BED symptoms has a stronger relationship with delaying care for those classified as "obese" than those classified with a lower BMI. However, the CI of the range of ORs with 95% confidence within the population includes 1.00, which indicates that the association of BMI as a moderator may have no effect on the relationship between BED symptoms and delaying care.

The conditional effect of having a BMI of "obese" and having BED symptoms yielded an OR of 2.94; that is, those who are classified as "obese" and have BED symptoms had 2.94 times greater odds of delaying care due to fear of experiencing weight discrimination than those classified as "obese" and who do not have BED symptoms. The conditional effect of having a lower BMI and BED symptoms yielded an OR of 0.75; whereas, BED had little to no effect on delaying care for those who were classified as "underweight", "normal/average" weight, or "overweight". The conditional average predicted probability for individuals who have BED symptoms and are classified as "obese" to delay due to fear of weight discrimination is 38.8%, compared to the

Table 2.2. Regression results of the main effects model and moderation effects model for delay of mental healthcare due to a fear of experiencing weight discrimination.

Predictor Variables	β	*SE*	Wald's χ^2	Sig.	OR (e^{β})	95% CI for OR (e^{β})
Main Effects Model: BED Symptoms						
Have BED symptoms	0.59	0.33	3.16	0.075	1.79	0.94, 3.43
BMI of "Obese"	2.12	0.42	25.90	< 0.001	8.35	3.67 18.97
Black/African American	-0.62	0.68	0.84	0.360	0.54	0.14, 2.03
Latinx/Chicanx/Hispanic	-0.33	0.55	0.36	0.548	0.72	0.24, 2.11
Asian/Asian American	-0.50	0.80	0.39	0.532	0.61	0.13, 2.93
Other Race/Ethnicity	-0.70	0.79	0.78	0.376	0.50	0.11, 2.33
Multiracial	-0.06	0.52	0.01	0.910	0.94	0.34, 2.62
Male/Man	-0.71	0.44	2.60	0.107	0.49	0.21, 1.17
Other Gender Identities	0.25	0.41	0.36	0.548	1.28	0.57, 2.87
Moderation Model: BED Symptoms*BMI						
BED symptoms * BMI	1.36	0.79	2.95	0.086	3.88	0.82, 18.31
Have BED symptoms	-0.28	0.65	0.19	0.664	0.75	0.21, 2.69
BMI of "Obese"	1.51	0.54	7.76	0.006	4.54	1.56, 13.23
Black/African American	-0.54	0.68	0.62	0.433	0.59	0.15, 2.24
Latinx/Chicanx/Hispanic	-0.30	0.56	0.28	0.595	0.74	0.25, 2.22
Asian/Asian American	-0.44	0.82	0.28	0.594	0.65	0.13, 3.22
Other Race/Ethnicity	-0.53	0.80	0.44	0.505	0.59	0.12, 2.83
Multiracial	-0.03	0.55	0.00	0.961	0.97	0.33, 2.84
Male/Man	-0.72	0.45	2.53	0.112	0.49	0.20, 1.81
Other Gender Identities	0.28	0.42	0.45	0.504	1.32	0.58, 3.01

average predicted probability of 17.6% for those who are classified as "obese," but do not have BED symptoms. Conditional probabilities are represented in **Figure 2.1**.

Sensitivity Analysis

Following recommendations by Ratitch and colleagues (2013) for handling and reporting results with data not missing at random (MAR) or MCAR (i.e., non-ignorable missing data), a sensitivity analysis was done by conducting the analysis on the complete data (i.e., data without MI) for variables in the model with hypothesis one and hypothesis two to compare findings. Regression results were generally similar between the MI data and complete data for the direct effects model ([Wald = 2.49, p = .115, OR = 1.98, 95% *CI* (0.85, 4.61)] and [(Wald = 3.16, p = .075, OR = 1.80, 95% *CI* (0.94, 3.43)] respectively; See **Table 2.3**), except for the complete data's alpha extending beyond the .10 significance threshold set for this study.

For the moderation model, the analysis with the complete data presented a much larger OR, smaller significance value, and wider CI for the interaction term (BED symptoms*BMI; Wald = 5.55, p = .018, OR = 19.15, 95% *CI* (1.64, 233.21) as compared to the MI analysis (Wald = 2.95, p = .086, OR = 3.88, 95% *CI* [0.82, 18.31]). As shown in **Figure 2.2** the predicted probabilities of the complete data were similar to the MI data **(Figure 1**), however, the CIs were much smaller with the complete data than with the MI data.

Discussion

This study examined the relationship between having BED symptoms and delaying mental healthcare treatment due to a fear of experiencing weight discrimination, and the association of BMI on this relationship. These findings contribute to the existing

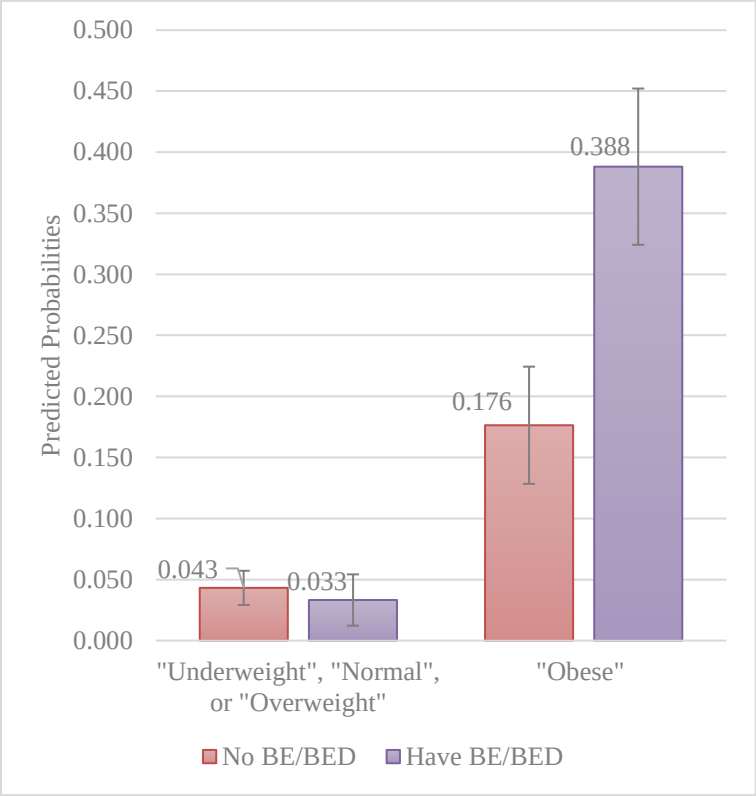

Figure 2.1. Predicted probabilities of delaying mental healthcare due to a fear of experiencing weight discrimination for bed symptoms and BMI based on analysis with multiple imputations.

Table 2.3. Sensitivity analysis results: regression results from complete data before multiple imputations.

Predictor Variables	β	*SE*	Wald's χ^2	Sig.	OR (e^{β})	95% CI for OR (e^{β})
Main Effects Model: BED Symptoms						
Have BED symptoms	0.68	0.43	2.49	0.115	1.98	0.85, 4.61
BMI of "Obese"	2.01	0.48	17.72	0.000	7.45	2.92 18.97
Black/African American	-0.71	1.13	0.39	0.530	0.49	0.05, 4.50
Latinx/Chicanx/Hispanic	0.13	0.68	0.04	0.842	1.14	0.30, 4.30
Asian/Asian American	-0.06	1.17	0.00	0.958	0.94	0.10, 9.30
Other Race/Ethnicity	-0.52	1.11	0.22	0.637	0.59	0.07, 5.20
Multiracial	0.01	0.70	0.00	0.984	1.01	0.26, 3.97
Male/Man	0.18	0.61	0.09	0.765	1.20	0.36, 3.95
Other Gender Identities	0.51	0.55	0.88	0.349	1.67	0.57, 4.86
Moderation Model: BED Symptoms*BMI						
BED symptoms * BMI	2.95	1.25	5.55	0.018	19.15	1.64, 223.21
Have BED symptoms	-1.38	1.10	1.58	0.209	0.25	0.03, 2.17
BMI of "Obese"	0.93	0.62	2.24	0.135	2.54	0.75, 8.62
Black/African American	-0.36	1.13	0.10	0.751	0.70	0.08, 6.40
Latinx/Chicanx/Hispanic	0.28	0.72	0.15	0.694	1.33	0.32, 5.42
Asian/Asian American	0.10	1.22	0.01	0.933	1.11	0.10, 12.00
Other Race/Ethnicity	0.07	1.14	0.00	0.949	1.08	0.12, 10.01
Multiracial	0.05	0.72	0.01	0.942	1.05	0.26, 4.33
Male/Man	0.34	0.65	0.28	0.597	1.41	0.39, 5.04
Other Gender Identities	0.55	0.55	0.99	0.319	1.74	0.59, 5.14

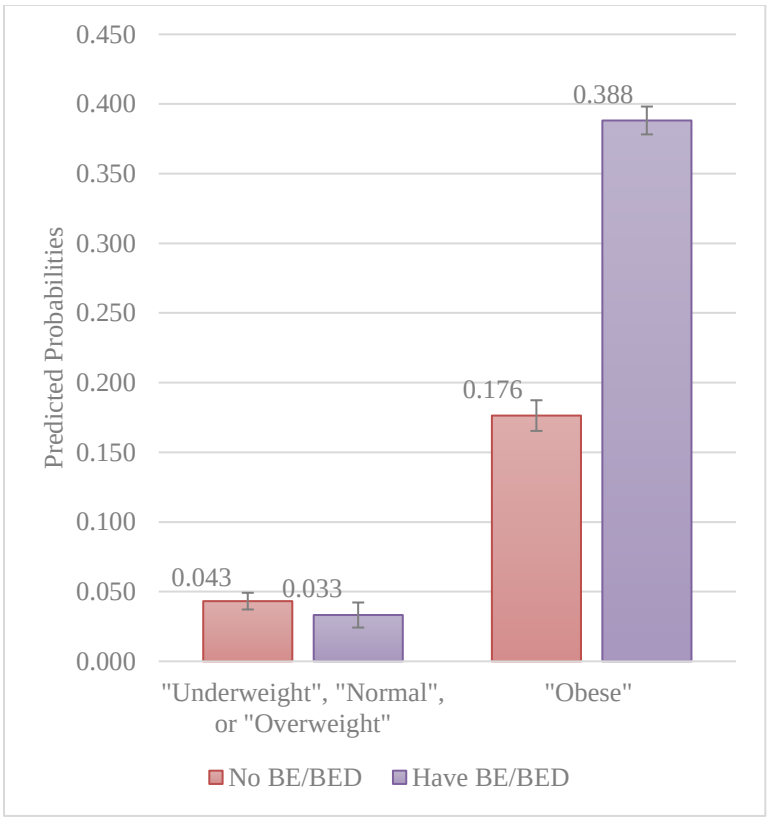

Figure 2.2. Sensitivity analysis: predicted probabilities from complete data before multiple imputation.

literature on barriers to care for EDs (e.g., Ali et al., 2020; Herman et al., 2014; Daugelat et al., 2023) by focusing on BED populations, and highlighting the connections between beliefs about weight discrimination and healthcare access (Mensinger 2016; Mensinger, 2018). Furthermore, this research underscores this relationship and the association between larger body sizes, higher body weight, or higher BMI and delaying or avoiding seeking treatment (Mensinger et al., 2016; Puhl & Heuer, 2009).

Overall, the estimated prevalence for delaying mental healthcare due to a fear of experiencing weight discrimination was 17.8%. This rate is comparable to recent research in mental healthcare from a nationally representative survey which reports a prevalence of delays between 16.9% - 38.4% for those with depression and anxiety (Moon et al., 2024). However, it is slightly lower than rates reported in other studies examining delays related to weight in nonclinical populations, which range between 24% - 28% (Kline et al., 2023; Phelan et al., 2021). This discrepancy may be attributed to the focus of this study on delays specifically due to a fear of experiencing weight discrimination, whereas other studies may have included broader reasons for delaying care (e.g., Kline et al., 2023; Phelan et al., 2021).

A high proportion of participants in the sample (40.9%) reported experiencing BED symptoms. This prevalence exceeds those reported in other literature and in the general population, which range from 2.8% to 31%, including subclinical populations (e.g., Bray et al., 2022; Hay et al., 2015; Derks et al., 2022; Bray et al., 2022). This difference could be due to the type of subsample this study consisted of-- those who have delayed or avoided mental healthcare, as research shows that delaying mental healthcare is common for BED populations (e.g., Ali et al., 2020; Linardon et al., 2020; Grammer et

al., 2022). Additionally, the study's recruitment efforts advertising for a study on DRFB ("distressing relationships to food and bodies"), may have attracted participants more likely to experience BED symptoms.

Interestingly, the majority of participants in this sample with BED symptoms self-reported height and weight within the "underweight," "normal/average," or "overweight" BMI ranges, with a lesser proportion classified as "obese" (41.4%). This finding diverges from other research collecting BED and BMI prevalence in the general population, reporting higher proportions of individuals with BED in the "obesity" range (Brown et al., 2018; Appolinario et al., 2022). This discrepancy may be due to the inclusion of individuals with subclinical BED symptoms in the present study, as BMI tends to increase with BED symptom severity (Brown et al., 2018). It is also possible that the differences are due to patterns of missingness, whereas more individuals with BED symptoms had missing BMI data, thus impacting accurate reports of BMI range frequency. That both participants with lower and higher BMIs experienced BED symptoms and delayed or avoided mental healthcare for any reason (n = 138), including due to the outcome variable of fear of experiencing weight discrimination (n = 30) highlights the importance of acknowledging that barriers to care for these conditions exist across all body sizes, not just those living in a larger body (i.e., with a higher BMI). Further, however, there was a greater proportion of individuals classified as "obese" with BED symptoms delaying due the specific outcome variable of this study- fear of experiencing weight discrimination- than individuals with a lower BMI. Though the sample size for having BED symptoms and endorsing delaying care due to a fear of weight discrimination was quite small (n = 30; "obese" = 18, lower BMI = 1, missing

data = 11), findings could suggest that more of these individuals have anticipated weight-biased beliefs compared to those with lower BMIs. No known research has examined this specific topic; however, these findings do extend prior research on the differing effects of weight stigma between larger and smaller body sizes (McGuigan & Wildinson, 2015; Mensinger et al., 2018; Brelet et al., 2021).

The Relationship Between BED Symptoms, Delay in Mental Healthcare Due to a Fear of Experiencing Weight Discrimination, and BMI

Analyses revealed that individuals with BED symptoms had significantly increased odds of delaying mental healthcare due to a fear of experiencing weight discrimination compared to those without BED symptoms. More notably, however, this relationship was moderated by BMI, such that this effect was stronger and was only significant for those classified as “obese.” Therefore, the odds of having BED symptoms compared to those without BED symptoms in this relationship to delaying care is misleading without the consideration of the effect of BMI. The moderation analysis demonstrated that the effect of having BED symptoms on delaying care due to a fear of experiencing weight discrimination was approximately three times greater for individuals with a higher BMI classified as “obese” than for those with lower BMIs classified as "underweight," "normal/average," or "overweight". Thus, these findings suggest that delaying care for those with BED symptoms for the specific reason of a fear-based *belief* about experiencing weight discrimination is only meaningful for those with higher BMIs.

These findings are not surprising given the widespread presence of weight stigma in healthcare settings (Barnes & Lawson, 2024; Tomiyama et al., 2018), including mental healthcare (Lawrence et al., 2021) and ED-based treatment (McEntee et al., 2023).

Additionally, they support existing research indicating that individuals of higher body weights or larger body shapes/sizes are significantly affected by weight discrimination (McGuigan & Wildinson, 2015; Mensinger et al., 2018; Brelet et al., 2021), more pronounced than those with lower body weights/smaller body shapes or sizes (Hart et al., 2011; Brelet et al., 2021). Furthermore, individuals with higher body weights or larger body shapes/sizes are notably affected by the internalization of weight-stigmatizing beliefs (Tomiyama et al., 2018), which may contribute to barriers to accessing appropriate care (Mensinger et al., 2018; McGuigan & Wilkinson, 2015; Tomiyama et al., 2018).

Implications for Care

The increased likelihood for delaying mental healthcare due to a fear of experiencing weight discrimination for those with BED symptoms at higher BMIs underlines existing literature demonstrating the upstream and downstream effects of weight stigma and receiving care (e.g., Mensinger et al., 2016; Ali et al., 2022; Bray et al., 2022; Bray et al., 2023). Experiences of weight bias in healthcare settings, particularly for those with higher weights, often include focusing the symptoms on weight change (Kornstein et al., 2014; Brelet et al., 2021) and perceptions of providers as contemptuous, patronizing, and disrespectful due to this weight-based focus (Alberga et al., 2019). Thus, burdened with the effects of these experiences, individuals can internalize weight stigma and develop negative beliefs about treatment (Cachelin & Striegel-Moore, 2006; Fixsen et al., 2023; Barnes & Lawson, 2024) and, moreover, avoid or delay help-seeking (Alberga et al., 2019; Mensinger, 2018). Further, a focus on weight within healthcare interactions can diminish the importance of mental health treatment,

potentially hindering access to crucial care for BED recovery (Cachelin & Striegel-Moore, 2006; Fixsen et al., 2023; APA, 2023).

Given the significant difference in delaying care due to a fear of experiencing weight discrimination between individuals with higher and lower BMIs, interventions to mitigate enacted weight stigma and discrimination are recommended. This is particularly important in healthcare settings where patients frequently report experiencing weight-based discrimination and stigma (Flint, 2021). As such, healthcare settings targeting providers who encounter individuals with BE symptoms and individuals living in larger bodies may be critical intervention points. Recommended strategies include efforts to reduce weight stigma through weight-inclusive health promotion programs (Mensinger et al., 2023; Bacon & Aphramor, 2011) and targeted interventions within healthcare environments designed to challenge weight-stigmatizing beliefs and practices (Hollet et al., 2023; Mensinger et al., 2016; Tomiyama et al., 2018; Flint, 2021; Talumaa et al., 2022).

Moreover, patients are particularly vulnerable to weight stigma within healthcare settings due to both the inherent power dynamics between patients and providers (Adebajo, 2022; Odero et al., 2020) and the common misconception of weight as a primary indicator of health. Efforts to instill and convey supportive and weight-inclusive environments with a focus on wellbeing to potential patients are recommended (McEntee et al., 2023; Tylka et al., 2014). This may include providers asking patients permission to take their weight and providing explanations for why it is medically necessary, focusing on health behaviors such as reducing levels of stress as identifying areas for improved

health, and marketing these alternative indicators of health and well-being through brochures within waiting rooms and social media.

Cautious Interpretation of Findings

Both the main effects binary logistic regression and the moderation analysis indicated a relationship between having BED symptoms and delaying care, with BMI moderating this association. However, the large amount of missing data handled by MI, the significance threshold set at $p \leq .10$, and the CI including 1 for the interaction effect results demonstrates a high level of uncertainty in the findings and the possibility that they could be due to chance and not reflect a true relationship. Specifically, under the $p \leq .10$ threshold the ORs had CIs that included 1.00 in both models, which could be due to the CIs set at a 95% CI, the variability between the 35 MI datasets, or the small sample sizes for groups within each variable, thus giving conservative regression estimates due to the low level of power and statistical confidence of the findings.

Therefore, these findings and the intention of a .10 significance value threshold are intended to be interpreted as exploring emerging trends in an understudied area of research (Betensky, 2019). Although the findings suggest that individuals with BED symptoms may have increased odds of delaying mental healthcare due to a fear-based belief about experiencing weight discrimination—and that this relationship may be stronger among individuals classified as “obese”— these results are not conclusive. Rather, they may indicate a trend that warrants further investigation. Future research should employ larger sample sizes and more rigorous statistical thresholds to clarify whether the observed relationships between BED symptoms, delaying care, and BMI as a moderator reflect reliable effects or statistical anomalies.

Sensitivity Analysis

Results of the sensitivity analysis between the MI data and completed data presented differing regression values, however, both leaned towards supporting hypothesis 1 and hypothesis 2. There were similar values with the direct effects of having BED symptoms and delaying care due to a fear of experiencing weight discrimination, however, the p-value did not meet the .10 threshold for the complete data, indicating there was not a strong relationship between these variables. For the interaction effect, both the MI and complete data showed BMI moderating the relationship between having BED symptoms and delaying care, however, there were significant differences with the regression values. Specifically, the complete data had a much larger OR and smaller p-value than the MI data, which could be due to listwise deletion of any missing data during analysis, not considering any missing data or patterns of missing data that could decrease the association of BMI moderating the relationship between BED symptoms and delaying care. Moreover, the CI for the complete data were much larger than the MI data, reflecting the substantial amount of missing data, roughly 36% of the cases for the BED*BMI interaction term were missing (see **Appendix Figure A2.1**), and the sparseness of available data with small samples sizes within each variable's category.

In both the MI data and complete data, there is uncertainty within the findings. The MI data presents uncertainty with 1/3 of the data using MI estimations of the true observed values. Moreover, though MI decreases uncertainty within datasets, it increases uncertainty between datasets compared to the complete data, with only one dataset used for analysis. This likely reflects the larger CIs for the MI data's predicted probabilities-variability between 35 datasets compared to no variability with the complete dataset.

With the complete data, uncertainty is presented with the small sample sizes and not accounting for the missing data. Thus, the lower effect of the moderation analysis for the MI data reflects a more conservative estimate than the complete data of the relationships between BMI, having BED symptoms, and delaying care, and it is likely that the complete data is showing incorrectly inflated significance, underestimating model uncertainty.

Strengths

This study had several strengths. First, it centered on individuals with BED symptoms—a population that recent research highlights as requiring greater attention to better understand its unique characteristics accessing and receiving care (Bray et al., 2022; Bray et al., 2023; Smith & Goldschmidt, 2024). Second, this study expands on existing literature that demonstrates individuals with BED symptoms fail to receive adequate care (Ali et al., 2020; Linardon et al., 2020; Grammer et al., 2022) by providing insight into a particular reason for those not receiving mental healthcare— a fear of experiencing weight discrimination. Moreover, this study builds on individual belief-based barriers to care among BED populations identified in prior research (Ali et al., 2020; Kornstein et al., 2015; Salvia et al., 2023; Bray et al., 2022; Leavey et al., 2011; Herman et al., 2014; Bye et al., 2018; Sonneville & Lipson, 2017; Linardon et al., 2020) and on research showing the relationship between higher weight status/larger body sizes and shapesand limited care-seeking (Mensinger et al., 2018). Specifically, this study found that individuals with BED symptoms had greater odds of delaying mental healthcare due to a fear-based belief of experiencing weight discrimination, and that this relationship had a stronger association for individuals with higher BMIs classified as

"obese." Future research should explore additional individual cognitions, including beliefs, as factors that influence access to care to increase mental health treatment for individuals with BED symptoms.

Limitations

Despite these strengths, this study had limitations. First, missingness was high for the BMI variable and MI was utilized to handle these data. There are limitations in using both the MI data and the complete data with regard to the findings. For MI data, first, it was known that the MI data was not MCAR, however, it may be likely that this data was also not MAR, which is when MI is recommended by some literature (Li et al., 2016). Other literature recommends MI with a large amount of missing data (Ratich et al., 2013), so this was applied. The data may have had patterns of missingness due to a greater proportion of individuals with BED symptoms not answering the BMI question in the survey (36.7% compared with 17.6% with no BED). This could reflect that individuals with BED symptoms tend to have higher body weights, with more experiences of weight discrimination (Mensinger et al., 2018), thus impacting results about delaying care due to weight-related beliefs. Second, about 1/3 of the data was imputed for the MI dataset, meaning a substantial amount of the values were estimates and not true observations. Third, MI was conducted after the BMI variable was calculated and recoded into a dichotomous variable. There are inconsistencies in the literature about timing of when to multiply impute a binary variable, however, due to the inability for MI to acknowledge the high and low cut points of the BMI variable, the imputation was done after dichotomizing BMI.

There are also limitations in using the complete data for this study's analysis. First, the sample size and group sample sizes for each variable were exceptionally small (e.g., *n*=1 for individuals with BED symptoms and a lower BMI who endorsed delaying care due to a fear of experiencing weight discrimination). This is likely why the CI is very wide, demonstrating a large amount of uncertainty, and cannot be confidently generalized to the larger population. Second, the complete data analysis used listwise deletion, assuming data were MCAR, and thus the large OR of 19.2 and small p-value of less than .05 were likely biased, incorrectly inflating the significance of the moderation analysis.

In sum, it is important to note that findings of the main effects model and moderation effects model could have differed based on how this variable's missing data was handled. However, the specificity analysis showed that overall results of the variables in the equation and the predicted probabilities between the complete data and the MI data were similar in that they would have been interpreted similarly showing BMI significantly moderating the relationship between having BED symptoms and delaying care due to a fear of experiencing weight discrimination. Data missingness increases the level of uncertainty with findings, and future studies should ensure that data collection methods address and account for the potential for missing values in the study design.

Second, there may have been missing variables in the regression equation, increasing unexplained variance and uncertainty for both the MI data and the complete data (Azubuike & Chinaka, 2020). The main effects and moderation binary logistic regression models only included four independent variables: BED symptoms, BMI, race/ethnicity, and gender identity. Additional variables added to the models could

decrease the level of uncertainty of the models and the predicted odds of the relationships between BED symptoms, BMI, and delaying mental healthcare due to a fear of experiencing weight discrimination. These could include variables controlling for other reasons for delaying care and variables that might also moderate or mediate the relationships such as measures of weight bias: experienced and internalized weight stigma and experienced weight discrimination. Future research should include variables such as measures of internalized and experienced weight stigma in examining weight-related reasons as barriers to care for BED symptoms populations.

Third, the variable of BED symptoms included both those who self-reported symptoms of BE and BED and those who had been diagnosed with BED by a healthcare provider at some point. It is possible that findings could differ depending on self vs provider indication of symptoms or a diagnosis, as individuals with clinical BED tend to have higher BMIs compared to those with subclinical symptoms (Brown et al. 2018), experiencing more frequent weight discrimination and decreased help-seeking behavior (Mensinger et al., 2018). Future research should examine these potential differences specifically related to their effect on delay of mental healthcare, and additionally, screen for BED using DSM-5-TR diagnostic criteria in study participants.

Fourth, the outcome variable of delaying mental healthcare due to a fear of experiencing weight discrimination was unclear regarding the intention of the non-endorsements of the item. Non-responses could have indicated either nonagreement with the statement assuming a reason for delaying mental healthcare was *not due to* a fear of weight discrimination, or nonagreement could have represented a missing response. It is unknown whether responses were truly indicative of non-agreement with the statement

due to the nature of the question. However, overall missingness of the question was under 4% (11 missing responses out of the 337 cases) where there was *no* endorsement of *any* of the “select all that apply” response options for indicating reasons for delaying care. Thus, the assumption for the outcome variable was that a non-response was considered a non-endorsement of the item, whereas mental healthcare delay was due to something other than fear of weight discrimination.

Fifth, all variables except for BMI were "select all that apply" question types. This allowed for potential researcher subjectivity bias in the recoding of the categories. However, literature supports the categorized groups utilized in this study of race/ethnicity (Gaither, 2015), gender identity (Quinn et al., 2015), and between classes of BMI (Flegal et al., 2013; Muennig, 2008; Fulton et al., 2023; Hunger & Major, 2014; Mensinger et al., 2018). Moreover, variables were transformed and recoded based on distributions, sample size, and contextual appropriateness of distinguishing, collapsing, or expanding categories. There are limitations to collapsing variables (Taylor & Yu, 2002), however, it is recommended to do so with small cell counts (Agresti, 2012).

Sixth, the sample size of this study concerning endorsements of the outcome variable of “Yes” -- delaying mental healthcare due to a fear of experiencing weight discrimination, whereas the predictor variable category of having BED symptoms and the BMI variable category of classified as "obese", is relatively small (n = 30 and n = 26 respectively), reducing generalizability to the wider population. This may also reduce the statistical power to detect significant effects, which may partially explain the findings of this study where the level of significance for both models is under p = .10, but not quite reaching an alpha value of .05.

Seventh, the alpha level of significance was set at p = .10, which increases the probability that the findings were due to chance and may reduce the impact of reliability of the findings. Moreover, almost all regression values of odds ratios had CIs that contained “1”, which further showcased this chance. These factors underline the nature of this study as an exploratory investigation to inform future research efforts. Future research should consider replicating aspects of this study with a larger sample (see limitation four) and setting the alpha at p = .05 for statistical significance (Andrade, 2019), to further validate the observed results.

Lastly, less of a limitation and more of a caution, there are instances of the BMI variable used in this study and its classifications set by the WHO as employed in the broader literature to generate oppressive narratives about weight and health (e.g., Pray & Riskin, 2023). Further, the BMI categories of "overweight" and "obese" have contributed to social stigma and labeling of individuals who fall in these categories, impacting mental health, physical health, and access to care (Muennig, 2008; Fulton et al., 2023; Hunger et al., 2015; Mensinger et al., 2018). Therefore, the use of the measure BMI and documenting its categories must be interpreted with the intention that they are strictly objective identifiers in this study to observe trends in their relationship to mental healthcare delay and weight discrimination. Thus, it is the hope of this research that findings will be deployed for efforts in addressing weight stigma for those in larger bodies and/or higher weights.

Conclusion

BED populations face significant barriers to receiving appropriate care that include weight stigma and discrimination. This is the first known study to address a gap

in the literature exploring the relationship between BED populations and delaying mental healthcare due to a fear-based belief about experiencing weight discrimination, and the association with body size and shape (via BMI) on this relationship. A binary logistic regression and moderation analysis were run to examine these factors. Results showed that those with BED symptoms had significantly greater odds of delaying mental healthcare due to a fear of experiencing weight discrimination compared to those without BED symptoms, however, that this relationship was moderated by BMI, such that the relationship between having BED symptoms and delaying care was strengthened for those with a higher BMI classified as "obese". Together, this research underlines the impact that beliefs about experiencing weight discrimination can have on BED populations, particularly those with larger body sizes and higher BMIs, and getting care. Such beliefs and delays in care may hinder the recovery process for individuals with BED symptoms and efforts are needed to address weight stigma, particularly in healthcare settings.

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APPENDIX

Table A2.1. Study variables.

Variable	Response Type	Original Scale of Measurement	Response	Data Transformations/ Recoding	Recoded Scale of Measurement	Type of Variable
Race/ethnicity	Select all that apply	Each individual category was dichotomous (Yes or No)	Black/African American Asian/Asian American Pacific Islander/Native Hawaiian Alaskan Native Native/Indigenous/American Indian/ First Nations Middle Eastern Latinx/Chicanx/Hispanic Non-Hispanic White Multiracial/Biracial Other (with a write in option)	Six categorical variables: Non-Hispanic White Black/African American Latinx/Chicanx/Hispanic Asian/Asian American Other single race/ethnicity Multiracial	Categorical	Control
Gender identity	Select all that apply	Each individual category was dichotomous (Yes or No)	Female/Woman Male/Man Transwoman Transfeminine Transman Transmasculine Nonbinary Gender Queer Agender Gender Fluid Gender Nonconforming (GNC) Transgender/Trans Multiple Genders Other/Additional (with a write-in option)	Three categorical variables: Female/Woman Male/Man Other	Categorical	Control
BMI	Open text	Continuous	Weight at present Height at present	Formula for BMI = weight (kg) / height $(m)^2$ x 703 BMI calculated, then recoded to two categorical variables (see Data Preparation): "0" - "Underweight", "Normal/average weight", "Overweight" "1" "Obese" class 1, "Obese" class 2, "Obese" class 3	Dichotomous	Control and Moderator

Table A2.1. continued.

Variable	Response Type	Original Scale of Measurement	Response	Data Transformations/ Recoding	Recoded Scale of Measurement	Type of Variable
Delay in mental health care due to a fear of experiencing weight discrimination	Question item 1: single-answer option Question item 2: select all that apply. Response item: single-answer option.	Dichotomous (Yes or No)	Single Response item from a combination of two question items. Question item 1: "Have you delayed or avoided getting mental health care for any reason in your lifetime?" All "Yes" responses were presented the second question item. Question item 2: "If you delayed getting needed mental health care in your lifetime, what were the reasons?" Single response item: "I was scared of experiencing discrimination based on my body size/shape/weight."	Two categorical/dichotomous variables (see Measures) "1" = endorsed item: ""I was scared of experiencing discrimination based on my body size/shape/weight." "0" = did not endorse item: "I was scared of experiencing discrimination based on my body size/shape/weight."	Dichotomous	Outcome
BED symptoms	Select all that apply.	Each individual category was dichotomous (Yes or No)	Single response item from a single question item. Question item: "Have any of these symptoms or diagnosis been present in your life (you personally experienced them) in the past year and/or past 6 months?" Response item: BED symptoms or a diagnosis. Response options: Never in my lifetime Yes, in my lifetime Yes, in the past 6 months	Answer options grouped together to form a dichotomous variable. "1" = An indication of "Yes, in my lifetime" or "Yes, in the past 6 months" were grouped together as a single variable of, "Yes, in my lifetime." "0" = An indication of "No, never in my lifetime."	Dichotomous	Predictor

Table A2.2. Frequency table of BMI classifications for those who have BED symptoms (*n*=87).

Characteristic	n	%
BMI		
"Underweight", "Normal/average" weight, "Overweight"	**51**	**58.6**
"Underweight"	4	4.9
"Normal/average" weight	35	42.0
Overweight	12	22.6
"Obese"	**36**	**41.4**
"Obesity" Class I	15	11.9
"Obesity" Class II	9	7.4
"Obesity" Class III	12	11.1

Note. Frequency counts are reported from data before multiple imputations that include missing data

Total Sample

Sample Sizes
n = 337 total sample size
n = 217 BED*BMI sample size

Missing Data
BMI = 94
BED = 29 (26 additional to BMI)
Total missing data for BED*BMI = 120 (35.6% of total sample size)

	No BED Symptoms (*n*=130)	**BED Symptoms** (*n*=87)
Lower BMI (*n*=169)	95	51
"Obese" BMI (*n*=74)	35	36
Missing	40 (17.6%, from 170 to 130)	51 (36.7%, from 138 to 87)

Note. Frequency counts are reported from data before multiple imputations

Sample Endorsing "Yes" Delayed Mental Health Care Due to a Fear-Based Belief of Experiencing Weight Discrimination.

Sample Sizes
n = 60 endorsed this reason for delay
n = 157 did *not* endorse this reason for delay
n = 32 BED*BMI sample size endorsed this reason

Missing Data
BMI = 23
BED = 8 (5 additional to BMI)
Total missing data for BED*BMI = 28 (46.7% of total endorsed)

	No BED Symptoms (*n*=13)	**BED Symptoms** (*n*=19)
Lower BMI (*n*=11)	7	1
"Obese" BMI (*n*=26)	6	18
Missing	9 (41.0%, from 22 endorsing to 13 with BED*BMI)	11 (36.7%, from 30 endorsing to 19 with BED*BMI)

Note. Frequency counts are reported from data before multiple imputations

Figure A2.1. Sample size differences with interaction BED*BMI missing data.

CHAPTER IV

STUDY #3: INDIVIDUALS WITH BED SYMPTOMS' THOUGHTS AND BELIEFS THAT INFLUENCE GETTING PROFESSIONAL ED-RELATED TREATMENT

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Abstract

Thoughts and beliefs, including overarching stereotypes and stigma are one prominent reason that individuals with EDs hinder accessing care. The purpose of this study was to explore individual cognitions and their influence on getting professional ED-related treatment for individuals with BED symptoms who have not received professional ED-related care. Moreover, these were examined through thoughts and beliefs regarding engaging in BE behavior, a diagnosis of BED, BE and BED's relationship with weight, and treatment for BE and BED. Data were collected with an online qualitative survey and analyzed using content analysis with a subsample of 49 participants who had never been to an ED facility or program. Four main themes emerged: 1) Limiting Thoughts and Beliefs about BED Symptoms and/or BED; 2) Shame, Stigma, or Embarrassment about BE Symptoms, a BED Diagnosis, or Getting Care; 3) Limiting Thoughts and Beliefs about Treatment and Care for BE and BED; and 4) Limited Knowledge, Understanding, or Awareness about BE Symptoms, a Diagnosis of BED, or Related Treatment. Across themes, stereotypes and stigma, specifically weight bias, and limited knowledge or awareness surrounding BED and treatment were associated with negatively influencing accessing ED-related professional care. Future

research should examine the impact of specific beliefs on limiting access to care for individuals with BED symptoms, with a particular focus on weight bias.

Introduction

Binge Eating Disorder (BED) is recognized as the most prevalent eating disorder (ED) within the general population (Udo & Grilo, 2018; Keski-Rahkonen, 2021) with estimates of the average point prevalence among adults globally ranging from 0.3% to 5.8% (Galmiche et al., 2019). While recent pooled prevalence rates of adult populations are limited, studies targeting specific populations, including older women (Wilfred et al., 2021), adolescents (Derks et al., 2022), and those with higher body weight (Niego et al., 2007), highlight that the prevalence of BE symptoms without a formal diagnosis of BED is even more common (19-26%, 12.6%, and 6-64% respectively).

The high rates of BE and BED indicate a high need for clinical services, however, individuals with BE and BED often face significant barriers to accessing and engaging with appropriate treatment. The American Psychiatric Association (APA, 2023) recommends appropriate care for BED centers on ED-related professional services targeting the psychological aspect of the symptoms. This approach prioritizes psychotherapy, with additional nutritional counseling, and in some cases, medication as supplemental (APA, 2023). Research has consistently shown that individuals with BE and BED exhibit low rates of treatment engagement (Ali et al., 2020; Grammer et al., 2022; Coffino et al., 2019). For example, a study among younger adults found that only 13.2% of those with BED and 9.0% of those with sub-threshold BED received ED treatment in the past year (Sonneville & Lipson, 2018). Moreover, a large-scale national study found that only 36% of individuals diagnosed with BED sought professional mental health care in their lifetime (Coffino et al., 2019). Individuals with BED often do not seek

or are not referred to services reflecting appropriate ED-related care. Instead, treatment is often directed towards addressing BE behaviors in isolation or is focused on weight-related concerns (Hart et al., 2011; Brown-Bowers et al., 2017; Sonnenblick et al., 2024; Bray et al., 2022). This discrepancy in adequate treatment engagement and misalignment between recommended treatment approaches and actual care-seeking behaviors highlights the critical need to understand the factors that influence treatment engagement among individuals with BED.

The Role of Cognitions in Eating Disorders and Care

One factor that is known to influence help-seeking in ED populations is individual cognitions (Nicula et al., 2022; Ali et al., 2025). Cognitions also play a fundamental role in the onset, maintenance, and recovery of BED (Burton & Abbott, 2017; Burton & Abbott, 2019; Burton et al., 2018; Palmieri et al., 2023; Laliberte & Lucibello, 2022). Cognitions encompass various higher-order psychological processes (Oxford University Press, 2022; Usu-Domenech & Nescolarde-Selva, 2016), and among them include thoughts—immediate, conscious experiences of processing and interpreting information (Vosgerau & Synofzik, 2010)—and beliefs—deeply held assumptions that shape one's broader experience (Mifsud & Sammut, 2023; Usu-Domenech & Nescolarde-Selva, 2016). Certain thoughts and beliefs, such as the idea that seeking treatment is shameful or stigmatizing, being undeserving of treatment, and self-sufficiency in managing symptoms have been shown to hinder individuals with EDs' behavior in seeking treatment (Ali et al., 2020; Liu et al., 2022; Goel et al., 2022; Potterton et al., 2020). Additional thoughts and beliefs that serve as treatment barriers include that the problem is not severe enough

(Leavey et al., 2011; Radunz et al., 2024), denial of symptoms (Ali et al., 2020; Radunz et al., 2023), the belief no effective treatments exists (Wilson et al., 2009), and that professional help is not essential to recovery (Ali et al., 2020; Radunz et al., 2023).

Stereotypes and Stigma of BED as Barriers to Care

Literature suggests that thoughts and beliefs, shaped by overarching societal stereotypes and stigma, may be linked to the barriers individuals face in accessing care for BED (Bray et al., 2022; Brelet et al., 2021). Stereotypes, defined as generalizations about the personal attributes or characteristics of a group of people (Rosenthal & Overstreet, 2016), occur in the context of BED (Brelet et al., 2021; Reas, 2017). These stereotypes often pertain to the behaviors of BE, the diagnosis of BED, the association of BE and BED with body weight, and perceptions regarding treatment (Brelet et al., 2021; Cain et al., 2017; Ali et al., 2020; Bray et al., 2022; Bray et al., 2023). Specifically, for example BE behaviors are perceived as indicative of a diagnosis of "overeating" (Bye et al., 2018; Kornstein et al., 2015) and are frequently treated as a "weight problem" with interventions aimed at weight loss (Bray et al., 2022; Brelet et al., 2021; Hart et al., 2011). Moreover, while individuals with BED symptoms tend to have higher weights and larger body sizes or shapes (Brown et al., 2018), a dominant stereotype of BED is its perceived disproportionate and predominant association with these individuals or those classified by the BMI as "obese" (Brelet et al., 2021).

Furthermore, these stereotypes surrounding BED are often intertwined with stigma, which includes negative attitudes and judgements about the disorder. A systematic review by Brelet and colleagues (2021) highlighted that stigmatizing content

related to BED often mirrored common stereotypes. Stigma associated with BED includes beliefs about the behaviors of BE, such as blaming individuals for their symptoms, and about the diagnosis itself, such as having BED is associated with negative character traits like being "weak," "lazy," or "careless" (Brelet et al., 2021). Additionally, there is a prevalent belief that BED arises from a "lack of self-control," "lack of self-discipline," or "lack of willpower" (Brelet et al., 2021), and other literature suggests beliefs that treating the condition should be self-managed (Ali et al., 2020).

Broader societal stereotypes and stigma can be internalized by individuals and affect the behavior of those they are targeted towards (Matthews et al., 2017; Mensinger et al. 2018; Brelet et al., 2021; Neuberg et al., 2020; Vogel et al., 2013; Hammarlund et al., 2018). This may similarly be true for those with BED symptoms. Experiences of stigma and internalization-- when individuals apply the negative societal beliefs against themselves, area significant barrier to care in populations with mental health conditions, (Fox et al., 2018; Vogel et al., 2013; Hammarlund et al., 2018) and within the context of weight-bias (Mensinger et al., 2018), frequently experienced by individuals with BED symptoms (Brelet et al., 2021). For instance, Mensinger and colleagues (2018) demonstrated that experienced weight stigma was associated with internalized weight stigma, which were both significant predictors of avoiding healthcare services. Similarly, other studies have shown that stigma related to EDs, such as the belief that these conditions are blameworthy, or stereotypes suggesting that symptoms can be self-managed, are associated with reduced help-seeking behavior (O'Connor et al., 2019; Brelet et al., 2021). These associations present a need for more critical inquiry into the

influence of stereotypes and stigma impacting decisions and behaviors for individuals with BED symptoms, and importantly, regarding appropriate ED-related treatment services.

Present Study

Most individuals with BED do not access appropriate ED-related treatment (Ali et al., 2020; Grammer et al., 2022; Coffino et al., 2019; Hart et al., 2011) and there is a need to understand barriers in reducing obstacles for recovery. While existing research has explored barriers to care for ED populations (e.g., Ali et al., 2020; Daugelat et al., 2023), including the association with beliefs and overarching stereotypes and stigma (e.g., O'Connor et al., 2019; Nicula et al., 2022), there is a paucity of research focused specifically on these factors within individuals who experience BED symptoms. Moreover, given the overarching stereotypes and stigma that surround the condition of BED, understanding specific cognitions that include neutral thoughts, stereotypes, and stigma as potentially contributing to not receiving appropriate care is an important step toward addressing individuals' decisions and behaviors to increase accessing ED-related treatment.

The purpose of this study was to explore individual cognitions and their influence on getting professional ED-related treatment for individuals with BED symptoms who have not received professional ED-related care. Moreover, these were examined through thoughts and beliefs regarding engaging in BE behavior, a diagnosis of BED, BE and BED's relationship with weight, and treatment for BE and BED. The study was guided by a single research question: What thoughts and beliefs do people with BED symptoms

have about BE behavior, the diagnosis of BED, BE and BED's relationship to weight, and treatment for BE and BED that influence getting professional ED-related care?

Methods

Design

The current study was part of a larger cross-sectional qualitative exploratory survey study originally conducted to explore thoughts and beliefs pertaining to BED and getting professional ED-related care. Exploratory research is broad-ranging, purposive, and used to maximize the discovery of general social or psychological phenomena (Stebbins, 2001), appropriate for understanding a new line of inquiry surrounding the thoughts and beliefs of individuals with BED symptoms as barriers to care. Qualitative survey research is a valuable design that harnesses the person-centered, bottom-up nature of qualitative methodologies, providing nuanced, in-depth insights and fostering new understandings through the use of a survey instrument (Braun et al., 2021). The use of a survey instrument to collect qualitative data was intended to strengthen study rigor through the application of an anonymous online survey design that could enhance participant anonymity in disclosing sensitive information related to BED symptoms, weight, and treatment (Terry & Braun, 2017; Ayton, 2023). Further, an online qualitative survey instrument allowed for enhancement of confirmability and dependability of the findings by expanding the scope of potential responses with an increased sample size, generating a broader set of data, and allowing participants to review their own data to inform the overall themes for exploration (Braun et al., 2021; Terry & Braun, 2017; Ayton, 2023).

Procedure, Recruitment, and Data Collection

All study procedures were approved by the University of Tennessee Institutional Review Board (IRB).

Data were collected January through February of 2025. Purposive, snowball, and network sampling methods were used for recruitment, with increased efforts to recruit minoritized identities (e.g., body sizes, races/ethnicities, gender identities, ages, etc.) by emphasizing the need for minoritized respondents in recruitment materials for adequate representation of the population sample who have BED symptoms. Various organizations and professionals in the domains of ED research, advocacy, and clinical practice and some specifically representing minoritized communities of race/ethnicity, gender identity, and weight inclusivity were contacted to assist with study recruitment and to provide referrals, if possible. We also posted advertisements on Facebook and on ED, social work, and academic listservs. Advertisements directed interested individuals to a website where they completed a screening survey for study eligibility. The eligibility requirements included 1) having ever engaged in BE symptoms with related feelings of loss of control and distress and not subsequently using compensatory behaviors (i.e., restriction, purging, over-exercising), 2) ever delaying or not seeking professional ED treatment specifically for the BE symptoms, and 3) being 18 years of age or older. Eligible participants were directed to an informed consent, and those who agreed were directed to the online survey which took approximately five minutes to complete. Once participants completed the survey, they were redirected to a separate page where they could enter their email address to register for a chance to be selected for a $5 gift card

and indicate if they would like to be contacted to provide feedback on initial study findings or for future research. Personal information was collected on a separate page from the survey to maintain the anonymity of their responses. Participant responses regarding compensation and follow-up did not impact their inclusion in the study.

Participants

The larger study included 75 participants. The current study utilized a subsample of participants (n=49) who indicated never having been to an ED treatment facility or program to focus on the influences towards appropriate care that specifically pertained to ED treatment. There was a total of 49 participants in this study. A total of 51.0% of participants had been diagnosed with BED, 46.9% had not, and one participant was unsure about being given an official diagnosis. The most frequently reported race/ethnicity was non-Hispanic White (61.2%), followed by Black/African American (22.5%). The majority of the sample identified as Female/Woman (81.6%). The average age in this sample was 30.0 years old (*SD* = 9.7) and the average self-reported body size was 7.0 (*SD* = 1.9) out of 10 (scale of "1" indicating extremely low body weight/shape/size to "10" indicating high body/weight/shape/size). The most frequently indicated length of time experiencing BED symptoms was 2 – 5 years (26.5%), followed by 5 – 10 years (22.5%), and then more than 20 years (18.4%). For a full description of participant characteristics, see **Table 3.1**.

Measures

Pilot testing of the survey with a convenience sample of 15 colleagues and professionals in qualitative research and the field of EDs was implemented prior to data

Table 3.1. Participant characteristics.

Characteristic	n	%	M	SD
Age			33.02	9.74
Race/Ethnicity				
Non-Hispanic White	30	61.22%		
Black/African American	11	22.45%		
Asian/Asian American	3	6.12%		
Pacific Islander/Native Hawaiian	1	2.04%		
Native/Indigenous/American Indian/First Nations/Alaskan Native	1	2.04%		
Middle Eastern	1	2.04%		
Latinx/Chicanx/Hispanic	1	2.04%		
Multiracial/Mixed Ethnicities	1	2.04%		
Other race/ethnicity not listed	0	0.00%		
Gender Identity				
Female/Woman	40	81.63%		
Male/Man	9	18.37%		
Non-binary/Gender Queer/Two-Spirit/Gender Fluid	0	0.00%		
Agender	0	0.00%		
Other gender identity not listed	0	0.00%		
Diagnosed with BED				
Yes	25	51.02%		
No	23	46.94%		
Other	1	2.04%		
Length of Time Experiencing BED Symptoms				
Less than 6 months	2	4.08%		
6 months to a year	1	2.04%		
1 - 2 years	6	12.24%		
2 - 5 years	13	26.53%		
5 - 10 years	11	22.45%		
10 - 15 years	4	8.16%		
15 - 20 years	3	6.12%		
More than 20 years	9	18.37%		
Body Size				
1	1	2.04%		
2	0	0.00%		
3	1	2.04%		
4	4	8.16%		
5	4	8.16%		
6	4	8.16%		
7	14	28.57%		
8	13	26.53%		
9	5	10.20%		
10	3	6.12%		

collection, with initial feedback informing the final online survey. Feedback led to improvements in the user interface of the survey platform and amendments to question prompts to read in a more conversational tone. Pilot testing of a survey is recommended as a best practice in online qualitative survey research designs (Braun et al., 2017; Terry & Braun, 2017). The online survey consisted of a quantitative questionnaire to capture participant characteristics, and a series of qualitative survey questions used to capture information for the primary aim of this study. The survey also included detailed explanations about the questions and prompts and provided a rationale before asking sensitive questions with a goal of increasing the quality of responses by accounting for potential discomfort, enhancing transparency of the research, and establishing trust in the intentions of the questions (Braun et al., 2021; Thomas et al., 2024; Braun et al., 2017).

Quantitative Questionnaire

Participant Characteristics. This part of the survey captured participant demographics, body size, BE symptoms, and ED treatment history and was used as supplemental information to describe the sample. Limited participant characteristics were collected due to the intentional brevity of the survey and the characteristics chosen were specifically relevant to the research question and to briefly describe the sample. Demographics included age, race/ethnicity, and gender identity. Age was captured in years. Race/ethnicity was recorded by a multiple-choice question with answer options that included Black/African American, Asian/Asian American, Pacific Islander/Native Hawaiian, Native/Indigenous/American Indian/First Nations/Alaskan Native, Middle Eastern, Latinx/Chicanx/Hispanic, Non-Hispanic White, Multiracial/Mixed Ethnicities,

Other (with a write-in option). Gender identity was reported by a multiple-choice item that included answer options: Male/Man, Female/Woman, Non-binary/Gender Queer/Two-Spirit/Gender Fluid, Agender, Other gender identity not listed here (with an open-text answer option).

Body size was assessed using a single-item self-report measure: "On a scale from 1 to 10, how would you identify your body weight/shape/size, with lower numbers (1–3) representing smaller body sizes and higher numbers (8–10) representing larger body sizes?" While not yet psychometrically validated, the subjective scale was designed to reduce potential stigma associated with clinical classifications like BMI and to promote a more inclusive, participant-centered approach. Similar unvalidated subjective measures have been used in prior research to assess perceived weight status (e.g., Gruszka et al., 2022).

Symptom characteristics included a multiple-choice item that asked how long BE symptoms have been experienced, categorized by six-months and then yearly intervals. Symptom characteristics also included an item asking, "Have you ever been diagnosed with binge eating disorder?", with response options of "Yes", "No", and "Other" with an open-text write-in option. Treatment information was captured by one item asking about having ever received ED treatment for binge eating, with response options of "Yes", "No", and "Other" with an open-text write-in option.

Qualitative Data

The qualitative portion of the survey was introduced with an initial description to prepare participants to think about their personal experiences with BED symptoms and

professional ED-related care. Then, four sequential question prompts asked participants to describe their thoughts and beliefs about: 1) BE symptoms, 2) a diagnosis of BED, 3) weight, and 4) treatment; and how their thoughts and beliefs influenced whether they got professional ED care or not. Each question prompt provided examples of potential responses. See **Figure 3.1** for the four question prompts as presented in the survey.

Data Analysis

Data were coded by this author (KMK) using a combination of conventional content analysis and directed content analysis approaches. Conventional content analysis is generally used to describe a phenomenon (Hsieh & Shannon, 2005). It used inductive techniques to develop new insights into phenomena that are limited, such as the beliefs and thoughts of interest for individuals with BED symptoms and their influence on getting ED professional care (Hsieh & Shannon, 2005). Directed content analysis is utilized to expand on related phenomena or theories (Hsieh & Shannon, 2005), such as stigma and stereotypes about BE, BED, weight, and treatment. A deductive use of theory is applied to map the research question on the data for analysis (Hsieh & Shannon, 2005). This directed approach guided the structured process of analysis, while the conventional approach allowed for codes and themes to emerge with this researcher's immersion into the data.

Analyses were guided by a five-phase process of qualitative data analysis recommended by Bingham (2023), adapted from Bingham and Witkowsky (2022), and employing techniques described by Saldana (2013). The five-phase process included memoing and employed either deductive or inductive analysis within each phase. The

Question Prompt
People with Binge Eating Symptoms, sometimes have thoughts or beliefs about their symptoms – things like their knowledge or awareness of binge eating symptoms, their perceptions of how severe the symptoms are, their beliefs about stigma or stereotypes, or whether the symptoms are related to mental health distress. Here is a list of binge eating disorder symptoms that you may relate with: *Eating a large amount of food in a short period of time* *Feeling like you can't stop eating or control what or how much your eating* *Eating a large amount of food when not feeling physically hungry* *Eating faster than usual* *Eating until uncomfortably full* *Eating alone because of being embarrassed about how much your eating* *Feeling disgusted with oneself, depressed, or guilty after eating* *Feeling distress over your binge eating* *Binge eating occurs daily, weekly, monthly* *Binge eating is not associated with compensatory behavior (e.g., purging, fasting, excessive exercise)* 1. Tell me about any thoughts or beliefs you have had about your **binge eating symptoms** and how they influenced whether or not you got professional eating disorder related care.
People with Binge Eating Symptoms, sometimes have thoughts or beliefs about the diagnosis of binge eating disorder (BED)– things like who has BED, what BED "looks like", what it means to have BED, or their beliefs about stigma or stereotypes and BED. 2. Tell me about any thoughts or beliefs you have had about the **diagnosis of BED** and how they influenced whether or not you got professional eating disorder related care.
People with Binge Eating Symptoms, sometimes have thoughts or beliefs about weight – things like how weight might or might not relate to their symptoms or BED, their beliefs about stigma or stereotypes regarding weight and symptoms or BED or the type of treatment needed or anticipated or previous treatment experiences related to weight/size/shape. 3. Tell me about any thoughts or beliefs you have had about **weight** and how they influenced whether or not you got professional eating disorder related care.
People with Binge Eating Symptoms, sometimes have thoughts or beliefs about treatment – things like their perceived need of treatment, beliefs about potential fears or benefits of getting treatment, and their thoughts about the type of treatment or level of care they should seek or will be referred to them. 4. Tell me about any thoughts or beliefs you have had about **treatment** for binge eating symptoms or BED and how they influenced whether or not you got professional eating disorder related care.

Figure 3.1. Qualitative data question prompts.

following phases were employed, with the corresponding process detailed regarding this research. In phase one, the data were first organized for the content analysis (Bingham, 2023). The data were organized in Microsoft Excel with a workbook dedicated for each of the four qualitative topic prompts (i.e., BE, BED, weight, and treatment). Each spreadsheet within the workbook included a column for the prompt responses, for the relevant topical categories, codes, themes, and other necessary components for this analysis.

In phase two, the data were sorted into relevant topical categories (Bingham, 2023) and the first round of coding was conducted applying descriptive codes (Saldana, 2013). A priori topic codes were developed aligning with this study's research question, primary prompts employed to answer the question, and previous literature and theory. The categories were first organized into the four higher-order topics consisting of the four individual open-text survey question prompts: 1) BE, 2) BED, 3) weight, 4) and treatment. Then, lower-order category topics informed by prior literature were used for deductive coding of descriptive codes within each of the four question prompt topics. These lower-order topics were: 1) neutral thoughts and beliefs, 2) stereotypes, and 3) stigma. Data that were not relevant to these categories or to the research question were filtered out. A coding guide was developed in this phase and iteratively updated describing pertinent categories, codes, and themes for this analysis.

Phase three included open/initial coding in which inductive analysis techniques were employed within each of the higher-order and lower-order categories to create, define, and apply codes as respondent statements were read through (Bingham, 2023). As

codes were developed, constant comparison (Glaser & Strauss, 1967) of these codes were done to verify existing codes or create new ones to reflect the data.

In phase four, patterns and themes were identified (Bingham, 2023) to inform the findings of the content analysis. The data, codes, and emerging themes from phase three were reviewed and collapsed, subsumed, revised, or eliminated to develop synthesized patterns of final themes (Saldana, 2013). These final codes for each prompt were applied and coded within each prompt to validate the final codes and further develop overall final themes within each prompt and across prompts. After the final themes and subthemes were developed, several rounds of coding were employed to verify the themes and retain evidence of the accuracy of the themes via supporting participant quotes.

At the end of this phase, member checking was employed to inform the validity of the findings and increase the rigor and trustworthiness through the confirmability of the themes (Ahmed, 2024) generated by this researcher (KMK). Participants who indicated interest in follow-up of study results were contacted to provide feedback for initial findings. Since participant contact information was not linked to survey responses, whereas the subsample of participants was filtered through survey responses, it was not possible only to contact participants in the subsample. A total of 59 participants indicated interest in study follow-up from the full sample and eight participants provided feedback.

Lastly, in phase five, themes and findings from the analysis were applied to examine related and existing theory and other literature to support findings (Bingham, 2023) for the writeup of the discussion.

Statement of Reflexivity and Rigor

This researcher (KMK) acknowledges that their social location and associations with the topics of BED and care may influence, limit, or impact this research. This researcher (KMK) is a non-Hispanic White, currently able-bodied and thin to straight-size bodied cisgender female who is personally in recovery from BED and has attended professional ED-related treatment. To increase rigor and transparency and decrease bias, several tactics were employed in this study: member checking to enhance credibility; memoing to enhance confirmability and dependability; exemplar quotes from participants to enhance confirmability; an audit trail, peer debriefing, and ongoing reflexivity to enhance dependability; and thick description in the write-up of the scope of the research to enhance transferability (Ahmed, 2024).

Results

Four main themes emerged: 1) Limiting Thoughts and Beliefs about BED Symptoms and/or BED; 2) Shame, Stigma, or Embarrassment about BE Symptoms, a BED Diagnosis, or Getting Care; 3) Limiting Thoughts and Beliefs about Treatment and Care for BE and BED; and 4) Limited Knowledge, Understanding, or Awareness about BE Symptoms, a Diagnosis of BED, or Related Treatment.

Theme 1: Limiting Thoughts and Beliefs about BED Symptoms and/or BED

This theme emerged as the most frequently reported across participant responses (n = 44). Under this theme, participants expressed sentiments of limiting thoughts and beliefs about BED symptoms and BED that were intertwined with stereotypes and stigma, and that impacted getting professional ED-related care. Responses consisted of

varying narratives related to negative judgements about BED and associated symptoms, often as stereotypes rooted in stigma, and commonly consisted of weight-based stereotypes and weight-stigma. Three subthemes emerged within this theme: a) BE and BED are Eating, Weight, and Personal Character Problems; b) Weight as an Indicator of Symptom Severity or a Problem; and c) Doubt or Minimization of BE Symptoms or a BED Diagnosis.

Subtheme 1.1: BE and BED are Eating, Weight, and Personal Character Problems

Participant responses (n = 40) included specific limiting stereotypes and stigma of BE symptoms and BED that related to eating, individuals with higher body weight, and personal character. Participants stated that BE and BED were problems of eating—that one ate "too much" or ate the "wrong" food. This was expressed by two participants describing their perceptions of BED as, "I thought it [BED] was related to eating out, too much [food], or just not being mindful of food choices;" and "Binge eating disorder to me was someone who constantly eats." Others assumed BE and BED and higher weight were one in the same, speaking about weight problems and their BE symptoms or BED diagnosis together as impacting getting treatment: "My weight is a huge problem…I'm not sure what would help or work with binge eating disorder." Moreover, through many participant statements, it was assumed that BED was a condition for people living in larger bodies, whereas one participant expressed, "only people in larger bodies could have BED."

Negative judgements about personal character were also frequently expressed for individuals with BED symptoms. Several specific statements were mentioned over and

again across participants that included the terms of "disgust," "willpower," "lazy," and "personal failing," and referenced being a "bad person" due to having BED symptoms. One participant summed up their experience of judging personal character as the problem associated with BE and getting help: "It feels like it is a deficit of willpower... It feels like if I were a better person, I would not need to get help."

Subtheme 1.2: Weight as an Indicator of Symptom Severity or a Problem

Several participants' (n = 13) thoughts and beliefs regarding the severity of their symptoms, problems associated with their symptoms, or having a BED diagnosis was associated with a limiting stereotype related to weight. Moreover, thoughts and beliefs about weight were used as an indicator of or to legitimize symptoms or experiences with BE and BED, hindering getting appropriate care. Participants mentioned that their beliefs about BED symptoms didn't reflect that of someone having an ED or getting professional ED-related care, such as "I was not obese nor underweight, so professional help not needed."

Many participants' responses also referenced being a higher weight, in a larger body, or being "fat" as a stereotype or indicator of BE or having BED, and that ultimately limited or warranted getting care. Some participants noted this as a stereotype from providers, impacting their care by attending to or focusing on BED symptoms as a" problem" only at higher weights. One participant explained, "…because at smaller sizes the problem was ignored." Others had self-stereotypes that BE and BED were problematic only at higher weights. For example, another participant stated, "For some of

my time that I had BED, I was not fat, and this further confused me about what I was experiencing with BED and whether or not it was problematic."

A participant who was diagnosed with BED further illustrated this stereotype, and that conversely, a higher body weight is conflated with having BED: "It was easy for me to accept my diagnosis of BED because I was fat… I bought into the stereotype that BED is a fat person's eating disorder. I don't even think I realized that thin people could have BED or that fat people could have eating disorders besides BED."

Subtheme 1.3: Doubt or Minimization of BED Symptoms or a BED Diagnosis

Participants (n = 30) doubted or minimized their symptoms as not indicating a problem that would require professional care. These limiting thoughts and beliefs were related to overarching stereotypes and stigma regarding symptoms and the diagnosis of BED and beliefs that they are not "severe enough" or legitimate to warrant care (also see Subtheme 1.2). Some participants noted that prior experiences with these types of messages, commonly from healthcare spaces, influenced their own thoughts and beliefs and negatively impacted getting ED-related professional treatment. One participant illustrated this in relation to their weight:

> I have always believed that my symptoms were "less severe" because I did not struggle with being low weight. Providers often did not take my concerns seriously, and that impacted the way that I saw my own symptoms. I believe that I needed more care, but was continuously pushed off by providers (medical, and mental health) so I started to gaslight myself…I thought it [a BED diagnosis] was inaccurate because I have always had restrictive symptoms as well but have

always been in a larger body. I believe that if I was in a smaller body the diagnosis would have been different…I never believed I was "sick enough" to get treatment because I didn't have a diagnosis like anorexia/bulimia.

Their quote also highlighted several of the participants' responses that reflected doubt of their BED symptoms or diagnosis due to a comparison of their symptoms to an internalized gauge. This was often based off internalized messages received from others, frequently healthcare providers, or comparison with their perceptions of other EDs.

Theme 2: Shame, Stigma, or Embarrassment about BE Symptoms, a BED Diagnosis, or Getting Care

Shame, stigma, or embarrassment about BE symptoms, the BED diagnosis, or getting care was reported frequently by participants (n = 32). This theme is overarching among the other themes and subthemes related to stigmatizing thoughts and beliefs; however, it encompasses the specific mentions of shame and embarrassment that are tied to stigma about BE symptoms, BED, and related care.

Throughout participant responses, shame and embarrassment were typically linked to stigma, either experienced stigma, anticipated stigma, or self-stigma. Two participants noted their embarrassment with BED its' symptoms, which were tied to their experiences with medical professionals: "I was embarrassed by the diagnosis and felt that doctors only ever saw my larger body and not the things I struggled with;" and "I have feelings of shame and lack of control…and don't want judgement [from providers]." Others stated shame and embarrassment about their symptoms associated with BED that impacted help-seeking and receiving care. This is described by one participant stating, "I

knew that I would eat uncontrollably large amounts of food in a short period of time, and I would hardly feel full until my stomach started to feel sick. I feel embarrassed about this situation and would rather eat alone than receive care." Some statements and sentiments exhibited shame and stigma related to morality; that BE, BED, or associated treatment was "wrong". One participant compared their experience with BED to other EDs in that, "It seems wrong to have a binge eating disorder when people have anorexia or bulimia so seeking professional help seems wrong as well."

Theme 3: Limiting Thoughts and Beliefs about Treatment and Care for BE and BED

Participants (n = 32) reported on thoughts and beliefs about treatment and care that were limiting to their receipt of ED-related professional care. This included the features of treatment and its' components, judgements of treatment and anticipated experiences, and related decisions about getting care. Three subthemes emerged within this theme: a) Treatment is Related to Weight-Management; b) Treatment is a Burden, Not Beneficial, or Not Effective; and c) BE Symptoms and/or a BED Diagnosis Can Be Self-Managed or Controlled.

Subtheme 3.1: Treatment is Related to Weight-Management

Several participants (n = 19) mentioned treatment for BED symptoms or a BED diagnosis as related to weight-management. This included negative past experiences, anticipated experiences, and experiences with or expectations of the focus on weight-loss or restriction, which impacted their decisions to get ED-related care. Several participants assumed that treatment included specific weight-control interventions, such as "giv[ing]

up sugar and flour," or "weight-loss drugs, [and] gastric bypass." Many of these participants noted their experiences included the influence of professionals such as being told to "limit [their] eating," and "lose weight." These experiences that focused on weight-loss as a treatment to BE and BED limited their care seeking behavior and negatively impacted their thoughts about receiving professional help. Two participants illustrated this in their responses: "Many professionals focus on weight-loss and no one understands," and "I hate going to the doctor because the solution is always to lose weight."

Subtheme 3.2: Treatment is a Burden, Not Beneficial, or Not Effective

Participants (n = 38) generally had negative thoughts and beliefs about treatment and ED-related professional care. This included judgements about the effectiveness of treatment, such as "I don't think any professional help would have been beneficial." These also included specific problems with providers, "…my issues are minimized by medical staff," or the treatment itself, "I think most treatment will just offer temporary relief." Moreover, one participant stated, "I was worried that the treatment process would be painful and long, and that it might not even achieve the desired results," relating to the unknown treatment effectiveness.

Several participants emphasized their beliefs about a resource burden of treatment, or that it would not be accessible to get care. Time constraints and financial strains were primary burdens. One participant echoed many of the sentiments of others in that the burdens of treatment did not outweigh the benefits, also relaying that the expenses would take away from other necessities: "I personally can't afford to pay for

treatment and food at the same time… I wouldn't have money to pay for my education and other [needs]."

Subtheme 3.3: BE Symptoms and/or a BED Diagnosis Can Be Self-Managed or Controlled

Participants (n = 15) shared their thoughts and beliefs that BE symptoms and/or a BED diagnosis could be, and sometimes should be, managed, addressed, or controlled by oneself, which influenced them not to get professional ED-treatment. Participants blamed themselves for their BED symptoms, "I should know better than to binge," and concluded that they themselves should "fix" them, with statements such as, "I should be able to get a handle on things on my own," when referring to getting professional care. These limited participants beginning the process of getting care, describing that they were "apprehensive to take the first step because I always tell myself I can handle it on my own." Some expressed shaming messages related to managing symptoms, including "it needed to be a thing fixed in secret." They also internalized messaged from others being told their eating habits [i.e., BE] were "easily fixable" due to their symptoms being "just laziness and lack of discipline." Together, participants appeared to not seek out or receive treatment because of limiting internalized self-blaming narratives.

Theme 4: Limited Knowledge, Understanding, or Awareness about BED Symptoms, a Diagnosis of BED, or Related Treatment

Participant responses (*n* = 19) under this theme provided a brief depiction that there was generally limited knowledge, understanding, or awareness about BED symptoms, a diagnosis of BED, or subsequent appropriate treatment. Frequently,

responses were specific to treatment. Participants had “never heard of BED treatment” or ED-related professional care. They also did not know about the components of ED-related treatment and were “not really aware of what this treatment entails,” which limited seeking care.

Participants also mentioned the limited knowledge surrounding BED and how that affected them knowing about or getting ED-related care. Often, participants reported not knowing their symptoms were a problem, such as “I never knew it was an eating disorder when I struggled,” in which they didn’t get care. They generally reasoned that their symptoms were due to something else, such as a character flaw (see Subtheme 1.1) or were normalized as behaviors others experienced, not warranting professional care. One participant illustrates this: “I grew up in a house with a bulimic mother. My sisters and I each have eating issues. Getting help was never thought about.”

Member Checking Feedback of the Results

Eight participants provided feedback for the results of this study. Overall participants agreed with the study findings and were appreciative of the opportunity to “air our voices.” They highlighted that the themes align with common concerns regarding thoughts and beliefs as barriers to care, specifically mentioning stigma and shame, the legitimacy of BED as a recognizable disorder, the relationships with BED and weight, misconceptions about treatment for BED, treatment’s association with weight-loss, the belief that BED can be self-managed, and the limited awareness of BED and treatment.

Discussion

Findings provide meaningful information about the kinds of thoughts and beliefs that influence getting professional ED-related treatment from participants with BED symptoms. This study contributes to the larger body of knowledge on cognitions and beliefs that are central to the onset, maintenance, and treatment of BED (Brauhardt et al., 2014; Burton et al., 2019), and on the stereotypes and stigma that surround BE and BED (e.g., Brelet et al., 2021). Moreover, this research adds to the literature on barriers to care for EDs and BED (e.g., Ali et al., 2017; Hamilton et al., 2022), specifically focusing on those with BED symptoms, and identifying particular themes of individual cognitions comprised of thoughts and beliefs of components related to BED (i.e., BE symptoms, the BED diagnosis, BE and BED's relationship to weight, and treatment for BE and BED; Brelet et al., 2021; Hollett & Carter, 2021) that influenced getting professional ED-related care. Themes of specific thoughts and beliefs found in this study mirror prior studies that have identified stereotypes and stigma related to BED, such as being predominantly and disproportionately associated with higher weight, and negative character traits (Brelet et al., 2021; Hollett & Carter, 2021), feelings of shame and embarrassment about BE and BED (O'Loghlen et al., 2022; Kornstein et al., 2016), beliefs about treatment (Laliberte & Lucibello, 2022; Wilson et al., 2009), and in research that demonstrates poor literacy about BED (Reas, 2017; Supina et al., 2016; Cain et al., 2017).

The themes and subthemes that emerged across participants and prompts were largely interconnected in regard to their influence on getting professional ED-related

care, and this often occurred in relation to limiting beliefs consisting of overarching stereotypes and stigma. For instance, the subtheme 1.1 "BE and BED are eating, weight, and personal character problems," particularly the association of BE or BED with higher weight, influenced participants' views reflected in the subthemes 3.1 "treatment is related to weight-management" and 1.2 "weight as an indicator of symptom severity or problem." Similarly, in the same subtheme 1.1, beliefs about negative personal character judgments were attributed to individuals with BE and BED, and these were linked to their thoughts and beliefs about getting professional care and considering ED-professional care represented in the subtheme 3.3 "BE symptoms and/or a BED diagnosis can be self-managed or controlled" and the theme 4 "limited knowledge, understanding, or awareness about BED symptoms, a diagnosis of BED, or related treatment."

Limiting Beliefs and Stereotypes and Stigma

Overall, findings from this study highlighted that limiting thoughts and beliefs influenced getting professional ED-related treatment and were frequently comprised of stereotypes and stigma regarding BED symptoms, a diagnosis of BED, and getting care, corroborating previous research on barriers to care for EDs (O'Connor et al., 2019; Brelet et al., 2021; Ali et al., 2020; Daugelat et al., 2023; Bomben et al., 2022; Hamilton et al., 2021). Moreover, the themes that emerged in this study revealed several stereotypes and stigma previously identified in prior investigations of BED populations. For instance, the stereotype that BED is predominantly associated with individuals who are higher weight, weight-based stigma, and stigma about eating behaviors are also demonstrated in vignette studies by Hollett and colleagues (Hollett & Carter, 2021; Hollett et al., 2023) and a

systematic review of the literature by Brelet and colleagues (2021) on stereotypes and stigma associated with BED. Additionally, themes in this study regarding beliefs about stigmatizing stereotypes such as those with BED having character flaws, the minimization of symptoms, and that the condition could or should be self-managed or controlled was also identified in prior research (Ebneter & Latner, 2013; Brelet et al., 2021; Hollett & Carter, 2021; O'Connor et al., 2016). Notably, however, the specific stereotypes and stigma identified in this study for BED populations were also shown to influence receiving treatment, a connection that has not been previously established in earlier studies.

Shame, Embarrassment, and Stigma

Thoughts and beliefs encompassing shame and embarrassment about BED symptoms, a diagnosis of BED, and getting treatment were mentioned, oftentimes accompanying implied stigma. In line with other research, shame and stigma about symptoms were frequently associated with a healthcare experience (Lubieniecki et al., 2024; Bray et al., 2022; Kornstein et al., 2016), which negatively influenced receiving professional ED-related care. Moreover, other shaming and stigmatizing beliefs that influenced care were due to comparison of BED as less severe and less warranting of professional help, also evident in other literature on knowledge and attitudes of BED (Reas, 2017) and on barriers to care for BED (Leavey et al., 2011; Kornstein et al., 2015).

Weight-Bias

A prominent finding across themes in this study was the association of thoughts and beliefs with weight and their influence on getting professional ED-related treatment.

Given that the majority of participants in this study identified as living in larger body sizes (i.e., a "7" out of "10"), this finding could reflect the overarching nature of weight-bias towards this population (Kressel et al., 2024; Andreyeva et al., 2008; Brewis et al., 2011; Puhl & Heuer, 2009) and its' impact on delaying or avoiding healthcare services (Mensinger et al., 2018). Consistent with existing research on weight stigma and individuals in larger bodies (Puhl & Heuer, 2009), study themes suggest that weight stigma and stereotypes were experienced, and likely internalized (Mensinger et al., 2018). While healthcare settings and interactions with providers were frequently mentioned as sources of these experiences, and are known environments that present weight bias (Peterson & Savoie Roskos, 2023; Puhl et al., 2021), it is also important to acknowledge that weight bias is pervasive across various domains, including media, social interactions, and public-health messages (Bray et al., 2022; Pearl & Schulte, 2021; Pearl et al., 2018). These experiences, regardless of origin, may have ultimately influenced participants' thoughts and beliefs related to BE and BED and receiving treatment.

Limiting Thoughts and Beliefs about Treatment

Limiting thoughts and beliefs about treatment emerged as a central theme, encompassing stereotypes about care, including stigmatizing views, and negative perceptions of professional ED treatment for BE and BED. These findings highlight previous literature demonstrating that treatment is often associated with weight management (Brown-Bowers et al., 2017), whereas individuals with BED are referred to weight-loss interventions by providers (Bray et al., 2022; Bray et al., 2023; Supina et al., 2016), believe that weight control is necessary in recovery (Laliberte & Lucibello, 2021)

and also seek help for their BED symptoms through weight-loss treatments (Hart et al., 2011; Sonnenblick et al., 2024). Additionally, the belief that BE symptoms or a BED diagnosis can be self-managed aligns with findings from previous studies on the stigmatization of BED (Brelet et al., 2021). In this current study, however, such beliefs acted as a barrier to accessing ED-related professional care.

Limited Knowledge, Awareness or Understanding

The findings demonstrated that thoughts and beliefs influencing receiving ED-related professional care included limited knowledge, awareness, or understanding about BED and related symptoms and care. Participant responses mirrored research that shows public understanding of BED is lacking (Reas, 2017; Hollett et al., 2023; O'Connor et al., 2016) and that people affected by BED are often not aware they have an ED (Hamilton et al., 2022). Moreover, findings from this study align with other research on BED literacy and barriers to care for BED, highlighting that thoughts and beliefs about symptoms are often not understood as a mental health problem or a problem needing professional care (Ali et al., 2020). Instead, they often attribute them to a personal character flaw or a problem regarding weight (Hollet et al., 2023; Hollet & Carter, 2021; Reas, 2017; O'Connor et al., 2016), whereas professional ED-related care is unknown or not considered.

Implications

This study underscores that individuals with BED symptoms face barriers to receiving professional ED-related care, and that these obstacles were influenced by individuals' own thoughts and beliefs about BED and related care. The participants in

this study had never attended an ED treatment program, and many had never been formally diagnosed with BED. Similar to other mental health conditions, individuals often delay seeking care until their symptoms become severe or critical (Wang et al., 2004; Daneshvari et al., 2021), oftentimes due to stigma, stereotypes, and a lack of awareness about the symptoms and available treatment (Henderson et al., 2013; Hamilton et al., 2022). Therefore, it is crucial to prioritize efforts aimed at improving access to appropriate care, particularly by addressing the cognitive and belief-based barriers faced by those with BED symptoms.

A key focus should be the deconstruction of associated stereotypes and stigma surrounding BE and BED, which can lead to internalized shame-based narratives (McEntee et al., 2023; Matthews et al., 2017) and potentially impede individuals' decisions towards receiving help. Among other areas, addressing weight-based stigma is essential, given its established link to BE (Puhl & Suh, 2015) and its role as a barrier to seeking care, as evidenced in both prior research (Mensinger et al., 2018) and this study. To combat this stigma, a cultural and systemic shift is recommended, targeting the behaviors and attitudes of those who contribute to stigmatization rather than solely focusing on affected individuals (Pearl, 2018). This includes healthcare institutions and the providers that are a first line of contact when individuals with BE and BED seek care to adopt weight-inclusive practices, screen for BED across body sizes, and prioritize the treatment of psychological symptoms of BED rather than weight management (Bray et al., 2023; McEntee et al., 2023). Public health messaging should also move away from shaming larger body sizes and promoting potentially deleterious weight-loss

interventions (Bray et al., 2022; Lawson, 2022), and instead focus on inclusive narratives that challenge harmful stereotypes regarding BE behavior and weight. Additionally, media outlets should be encouraged to prioritize diverse representations of body sizes and individuals struggling with BE to mitigate societal stereotypes and stigma.

Enhancing literacy about BED symptoms and appropriate treatment is also recommended to increase access to ED-related care. This can be achieved by integrating educational efforts within educational institutions, online platforms, and other spaces frequented by individuals at risk for BE and BED. Research suggests that online psychoeducational platforms specifically addressing BE show promise as an intervention to increase symptom recognition and treatment awareness (Linardon et al., 2020). Additionally, research suggests that mental health literacy and stigma reduction interventions can help improve help-seeking behaviors among individuals with ED symptoms (Martin et al., 2020).

Beyond general awareness of available treatment options for BE and BED, understanding that interventions are tailored to these individuals and demonstrably effective may help overcome limiting thoughts and belief-based barriers about the treatment experience for those affected. Cognitive behavioral therapy, interpersonal psychotherapy, and dialectical behavioral therapy are recognized as effective psychological treatments for BED (Giel, et al., 2022). However, it is also important to prioritize an anti-diet approach within treatment (Mauldin et al., 2022). This is crucial given that the majority of the participants in this study identified as living in larger bodies, and, that individuals with BED frequently face weight stigma, regardless of their

weight status (Hollet & Carter, 2021; Romano et al., 2021). A weight-neutral paradigm, focusing on improving overall health rather than weight, should be employed (e.g., Laliberte et al., 2022; Clifford et al., 2015; Schaefer & Magnuson, 2014), allowing for a more comprehensive and supportive treatment experience. Disseminating information about tailored and evidenced-based treatments for BED through various channels—such as social media campaigns, educational programs in schools, and informational materials in healthcare settings (e.g., waiting rooms)—may enhance public awareness. More importantly, these efforts could reach individuals with BED symptoms who have never sought treatment, providing them with essential knowledge about available care options.

Limitations and Future Research

First, this study relied on four open-ended questions in a cross-sectional survey, which did not allow for follow-up or clarifying questions. However, literature supports the use of qualitative survey methods for the primary intentions of this study, which was to explore initial perspectives on sensitive topics across a wider range of participants (Braun et al., 2021). Second, this study relied on participant self-reported BED symptoms with a brief eligibility screener, whereas the sample may vary across symptom severity and frequency. Third, the data were derived from a subsample who had never attended an ED treatment program or facility, and therefore findings should be limited to this particular population. Future research should incorporate qualitative interviews and more comprehensive screening measures for participant inclusion to provide a deeper and more nuanced understanding of individual cognitions and beliefs that influence care, particularly for those with varying levels of severity and/or frequency of BED symptoms.

Fourth, the sample was predominantly homogenous in terms of gender identity, primarily representing Female/Woman identities, and future research should aim to include a larger proportion of individuals with diverse gender identities.

Fifth, the measure of body size, shape, and weight used in this study was developed specifically for this research and has not yet been psychometrically validated. Its subjective nature may limit reliability, and prior studies have noted inconsistencies between self-reported and objective measures such as BMI (Sutcliffe et al., 2014; Wilson et al., 2019). However, BMI and similar clinical tools have been widely criticized for reinforcing weight bias and stigmatizing individuals classified as "overweight" or "obese" (Nuttall, 2015). To address these concerns, the present study employed a subjective, self-identification scale ranging from 1 to 10, with lower numbers indicating smaller body sizes and higher numbers indicating larger body sizes. This value-neutral, descriptive approach was designed to minimize weight stigma and promote a more respectful, participant-centered method of assessing body size. Although similar subjective measures have been used in previous research (e.g., Gruszka et al., 2022), they too lack psychometric validation. Alternatives such as silhouette-based scales (Stunkard et al., 1983) are constrained by standardized imagery that may not reflect diverse body types. More precise tools, including customizable 3D avatars (Ralph-Nearman et al., 2019), show promise but currently lack integration with widely used survey platforms. Future research should focus on validating subjective measures and advancing inclusive, reliable tools for assessing body size across diverse populations.

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CHAPTER V

DISCUSSION/CONCLUSION

Discussion

BED is a serious psychiatric condition and the most prevalent ED worldwide (APA, 2022; Qian et al., 2021). Despite its high prevalence, many individuals with BED do not receive necessary ED-specific or mental healthcare (Ali et al., 2020; Lydecker, 2024). While existing research has explored barriers to care across multiple socioecological and systemic levels, these studies often combine BED with AN and BN, limiting insights into the unique challenges faced by individuals with BED (e.g., Lane et al., 2020; Nicula et al., 2022; Bomben et al., 2022; Wacker et al., 2018; Daugelat et al., 2023; Ali et al., 2017). Moreover, there was a notable gap in research examining barriers to treatment at the individual level for BED populations, particularly in relation to cognitions and beliefs. Therefore, the purpose of this dissertation was to examine barriers to ED-specific treatment among individuals with BED symptoms, and additionally, explore individual-level cognitions, including beliefs, that may influence accessing care.

This exploration was carried out through three interrelated studies. First, a systematic literature review identified factors related to not receiving ED-treatment for individuals with BED symptoms across cultural/systemic, provider, and individual-levels. Findings further highlighted that individual-level factors, particularly cognitions and beliefs, and with overarching themes of stereotypes and stigma, primarily related to weight, were frequent and prominent factors. Second, a secondary data analysis online questionnaire study demonstrated that individuals with BED symptoms had greater odds of delaying mental healthcare due to a fear-based belief about experiencing weight discrimination compared to individuals without BED symptoms, and that this relationship

was stronger for individuals classified with a BMI of "obese" compared to individuals with a BMI classified as "underweight," "normal/average" weight, or "overweight." Lastly, a qualitative survey study revealed that thoughts and beliefs, consisting of stereotypes, stigma, and lack of knowledge or awareness about BE, BED, and treatment, and frequently related to weight-bias, influenced not getting ED-related professional care for individuals with BED symptoms.

Findings from these studies collectively suggest that, for individuals with BED symptoms, cognitions, specifically beliefs act as barriers to accessing ED-related care. This mirrors previous systematic reviews for ED populations that combine AN, BN, and BED that identified attitudes and beliefs as barriers to care, including denying a need for professional care and shame and stigma of symptoms (Lane et al., 2020; Nicula et al., 2022). This research extends the knowledge base regarding these factors as barriers for individuals specifically with BED symptoms.

Additionally, across studies it was found that beliefs for individuals with BED symptoms contained an association with bias that negatively affected accessing care. These findings corroborate with existing ED research that demonstrates biased beliefs, such as self-stigma of one's symptoms or beliefs about treatment not being helpful, can limit access to care (Ali et al., 2020; Bye et al., 2018; Kornstein et al., 2015). This dissertation builds upon prior literature by providing a deeper understanding of biased beliefs in individuals with BED symptoms. Moreover, for individuals with BED symptoms, it highlights specific biased beliefs related to weight and accessing treatment.

These findings suggest that bias has a role in shaping treatment access for individuals with BED symptoms, highlighting that beliefs may be influenced by bias. Bias can include stigma, stereotypes, and discrimination and manifest as prejudgments or negative judgments that can affect behavior (Sociology Plus, 2025, Oxford University Press, 2025). Prior literature has shown that bias regarding BED includes shame and sigma about symptoms, being able to manage symptoms without professional care, linking BE and BED predominantly with individuals of higher bodyweight, or of having a weight problem (Brelet et al., 2021). These biases are present in the general public and in healthcare related settings (Brelet et al., 2021), as with provider bias and bias related to not having adequate care systems set up for individuals with BED (Kornstein et al., 2021; Liu et al., 2022).

Additionally, findings from this dissertation revealed that biased beliefs related to barriers to care were also associated with weight bias. Weight bias, a negative bias towards generally towards individuals with higher weight, is pervasive throughout societal narratives and practices (Alberga et al., 2016). It can be enacted and experienced in various contexts, including schools, workplaces, interpersonal relationships, and healthcare settings (Pearl et al., 2018; Puhl & Heuer, 2009). Weight bias is reinforced by mainstream health narratives and institutional practices that hold significant influence over individuals' well-being, such as those in healthcare (Reas, 2017; Alberga et al., 2016). Tools like the BMI, widely used to assess health based on height and weight, along with obesity research linking higher weight to increased health risks, have

informed public health messaging and medical care that often encourages lower weight for greater overall health (Peterson & Savoie Roskos, 2024; Alberga et al., 2016).

Thus, it is possible that barriers to care that were associated with bias for individuals across the studies of this dissertation were influenced and internalized from exposure to overarching stereotypes, stigma, and discrimination regarding BED and weight. Research demonstrates a connection between societal and cultural influences on individual beliefs and behaviors (Pearl & Puhl, 2018; Phelan et al., 2021), including how experiences of stigma and discrimination contribute to internalized biases and hinder access to healthcare (Mensinger et al., 2018). Findings from Study #2 revealed that individuals with BED symptoms were more likely to delay seeking care due to a fear-based belief about experiencing weight discrimination compared to those without BED symptoms and that this relationship was especially pronounced among individuals classified as "obese" compared those who were classified with lower BMIs. These findings suggest that anticipated weight discrimination acted as a barrier to mental healthcare. This fear may stem from prior experiences of weight stigma or discrimination faced by individuals with larger body sizes (Reas, 2017; Mensinger et al., 2018). Moreover, Study #3 found that prior weight stigmatizing and stereotyping experiences influenced beliefs that limited getting ED treatment, and that these beliefs often reflected overarching societal bias regarding BED and weight. Together, prior research and findings from this dissertation suggest a critical need to address bias to improve access to ED related care for individuals with BED symptoms.

Implications for Social Work

Social workers are particularly positioned to address barriers to care faced by individuals with BED symptoms as a duty to uphold ethical principles and a commitment to individuals they serve within the broader society (National Association of Social Workers [NASW], 2021). Specifically, social workers' primary goal is service, to help people in need and address social problems, that includes access to necessary healthcare, and follow the principle of dignity and worth of the person, which includes individuals with BED symptoms (NASW, 2021). Findings from this dissertation suggest that social workers should address individual level barriers that include cognitions, specifically beliefs regarding bias, and general overarching societal bias, including bias towards BED and weight, that likely informs individual beliefs. It is recommended that a multi-level approach of social work practices on the micro, mezzo, and macro level be applied to comprehensively address bias and help individuals with BED symptoms access necessary ED related care.

Micro-Level: Focusing on Individuals with BED and Treatment Literacy

At the micro level, social workers can instill efforts directly towards individuals with BED symptoms or those at risk. Findings from Study #1 and Study #3 illustrated that biased-based beliefs included limited awareness regarding BED symptoms and appropriate treatment. Thus, improving literacy about BED among individuals may be beneficial in reducing limitations to accessing care. Research suggests that increasing individual mental health literacy and reducing stigma can promote help-seeking behaviors among individuals with ED symptoms (Martin et al., 2020). This literacy

should include recognizing the presentation of BED symptoms across diverse body sizes, shapes, and weights, emphasizing that these symptoms are unrelated to weight (APA, 2022). It should also encompass understanding appropriate treatment options, focusing on addressing the mental health components of the disorder rather than weight management (APA, 2023), and validating the need for professional ED care.

These efforts from social workers can begin early by advocating for integration into school- and college-based settings, where health courses and peer education programs can provide education on BED recognition and treatment options. Additionally, online psychoeducational platforms specifically addressing BE have shown promise in improving symptom recognition and treatment awareness (Linardon et al., 2020). Social workers can instill efforts to promote these platforms across age groups through targeted social media campaigns, utilizing AI algorithms to reach high-risk individuals. Healthcare settings also offer valuable opportunities to improve BED and treatment literacy for individuals through patient-centered educational efforts, ensuring individuals are informed about BED symptoms and appropriate care options.

Mezzo-Level: Focusing on Healthcare and Providers with BED Informed and Weight-Inclusive Environments

At the mezzo-level, social workers can focus efforts on addressing BED and weight bias within healthcare settings and provider interactions. Findings from all three studies in this dissertation suggest that beliefs about care experiences serve as barriers to accessing treatment. These findings, and prior research demonstrating frequent experiences of BED and weight bias in healthcare settings (Brelet et al., 2021; Reas,

2017), suggest that healthcare environments and provider interactions could be particularly critical in influencing decisions and behaviors to access care for individuals with BED symptoms. Addressing these biases is essential to fostering more supportive and accessible treatment experiences for individuals with BED symptoms.

Providers and healthcare systems need to be informed about appropriate treatment for BED and encompass an inclusive environment free from weight bias. When individuals with BED symptoms present in healthcare settings, providers need to be prepared to educate their patients on appropriate treatment options and pathways to access care. Social workers can play a key role in this effort by becoming informed themselves, following the NASW principle of competence, and supporting the education of other providers. Online BED literacy resources can be integrated into social work and medical curriculum and professional training programs to enhance providers' knowledge about symptom presentations and appropriate treatment (e.g., Linardon et al., 2020). Current recommendations for BED treatment include cognitive behavioral therapy, weight-inclusive nutritional care, and various levels of ED-specific care, such as intensive outpatient programs and residential treatment (APA, 2023). Providers and healthcare organizations should direct patients to reputable ED resources, such as nationaleatingdisorders.org or allianceforeatingdisorders.com to facilitate access to appropriate treatment when not available within their facility.

Moreover, weight bias—prevalent across healthcare, mental healthcare, and ED treatment settings (Pearl, 2018; McEntee et al., 2023) experienced by individuals with BED symptoms— can be mitigated through social workers' advocacy for a shift from

weight-centric to weight neutral paradigms of care. Rather than prioritizing weight as the primary indicator of health, it is suggested to adopt a holistic approach that considers a comprehensive patient profile, including health behaviors and broader determinants of health, regardless of weight (McEntee et al., 2023; Tylka et al., 2014). Recent efforts in ED literature and national initiatives, such as the Eating Disorder Task Force from the International Association of Eating Disorder Professionals (Samuels et al., 2025), have focused on developing and implementing strategies to reduce weight stigma in healthcare settings (McEntee et al., 2023; Bray et al., 2022; Kramer et al., 2024). These efforts include modifying physical environments—for example, ensuring the availability of larger hospital gowns, blood pressure cuffs, and seating options—to accommodate diverse body sizes. Additionally, they emphasize weight-inclusive provider practices, such as using neutral and respectful language to describe body sizes, shapes, and BED symptoms (McEntee et al., 2023; Kramer et al., 2024) and implementing BED screening regardless of BMI. Together, when individuals seek care for either BED specifically or other healthcare needs, there will be a BED informed and weight-inclusive environment of care set up to provide or refer to appropriate treatment for individuals with BED.

Macro-Level: Focusing on Overarching Societal Bias with Reformed Messaging

At the macro-level, social workers can follow the NASW principle of social justice by focusing efforts on addressing social injustices of overarching societal bias surrounding BED and weight, particularly within the narratives and messaging produced by influential domains that shape public understanding about appropriate care. Findings from Study #1 of the systematic literature review suggest that barriers to care for

individuals with BED symptoms exist at the cultural/systemic level, including widespread societal perceptions and beliefs. Additionally, findings from Study #3 suggest that the thoughts and beliefs of individuals with BED symptoms often reflect overarching societal biases.

To improve access to care, it is essential to address and reform macro-level messaging that can potentially influence individual beliefs about BED and treatment. This includes social workers engaging in efforts to reshape narratives within key domains such as BED and weight-related research, public health discourse, and medical guidelines. One critical area for research is the development of effective, non-weight-focused treatment approaches for BED recovery. Social work researchers should conduct studies that incorporate person-centered perspectives on treatment effectiveness across diverse body sizes, particularly among individuals with BED symptoms who have prior treatment experiences. Additionally, their research should examine the benefits and effectiveness of weight-inclusive care compared to weight-centric approaches (e.g., McEntee et al., 2023; Tylka et al., 2014).

Beyond research efforts, social workers should integrate findings on non-weight-biased treatment and general BED literacy into public health and medical contexts. Disseminating accurate, non-stigmatizing, and non-stereotyping information about BED and its treatment can help reduce misinformation and improve care accessibility. Social workers could develop public health campaigns—including billboards, social media initiatives, and television advertisements—promoting evidence-based, weight-inclusive treatment approaches while emphasizing that BED affects individuals of all body shapes,

sizes, and weights. Additionally, social workers should advocate for non-weight-biased treatment recommendations to be incorporated into official care guidelines from medical organizations such as the American Psychiatric Association and the American Medical Association.

Across these domains, the central goal is to ensure that messaging about BED, weight, and treatment is unbiased from stigma and stereotypes. By generating efforts to promote accurate, inclusive, and non-stigmatizing information, macro-level interventions can help reshape individual beliefs about BED, ultimately reducing barriers to care and improving treatment access for those affected.

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VITA

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