Binge Eating Disorder: Breaking Down Patient-, Provider-, and Public Policy Barriers to Detection, Treatment Access, and Engagement

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**Abstract**

Binge eating disorder (BED) is an autonomous DSM-5 mental health diagnosis with high lifetime prevalence rates and a complicated health sequalae that significantly impairs quality of life. Standard of care interventions for BED have low treatment success rates (38–44%), high recurrence rates (49–64%), and early discontinuation of care. Moreover, 93–97% of individuals who meet DSM criteria for BED never receive a formal diagnosis, 67% do not perceive the need for formal treatment, and 56–87% never pursue or receive standard treatment, due in part to a variety of treatment barriers. Bray et al. (2024) provides an in-depth review of literature pertaining to existing barriers that can hinder BED identification (stage 1), treatment-seeking (stage 2), and treatment access and engagement (stage 3) at the levels of the patient, healthcare providers/systems, and the general public (including public health policy). Here, we propose a multifaceted approach to comprehensively address these barriers. Our approach involves targeted campaigns directed at three distinct audiences: 1) individuals who experience BED; 2) healthcare workers and systems who care for individuals with BED; and 3) the broader public sphere shaping the environment BED exists in. These campaigns should focus on dispelling stigma and raising awareness about BED prevalence, demographics, treatment options, and funding avenues. Incentivizing provider education through certifications, enhancing financial aid and insurance coverage, and establishing user-friendly online platforms that consolidate resources and multi-provider communication can further mitigate these barriers. Additionally, allocating research funding is imperative to develop and test treatment modalities that are: 1) free or low-cost; 2) remote/virtually accessible or community based; 3) socio-demographically sensitive and inclusive; and 4) sensitive to the unique experiences of individuals with BED. We propose five major solution aims and discuss current literature findings and public policy campaigns that support these solutions. Overall, our proposals align with existing literature, endorsing collaborative efforts that involve healthcare, public policy, education, and research to combat BED barriers and improve BED detection and treatment-seeking, access, engagement, and success.

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# Introduction

# Binge Eating Disorder is a Prevalent Global Health Problem that Often Goes Undetected

Binge Eating Disorder (BED) is an autonomous DSM-5 mental health diagnosis defined by discrete (2-hour) episodes of rapidly eating objectively large amounts of food (more than most people would eat under similar circumstances and/or past being full) with a sense of loss of control, accompanied by distress, guilt, and shame that occur at least once per week for at least three months (1). The disorder is linked to high lifetime prevalence rates (4.5–31% (2, 3)) and complex health sequelae (anxiety, depression, obesity, cardiovascular disease, diabetes) that significantly reduce quality of life (2, 4-8). Standard of care interventions for BED include cognitive behavioral therapy (CBT), behavioral weight loss, interpersonal therapy, and medications (9). However, these interventions have low treatment success rates (38.3–43.6% (2, 4)), high recurrence rates (49–64% (2, 10)), high treatment dissatisfaction (11), and high rates of early dropout (11). Furthermore, studies find that 93.4–96.8% of individuals who meet DSM criteria for BED never receive a formal diagnosis, 67.3% do not recognize the need for formal treatment, and 56.4–86.8% never seek or receive standard treatment, due to a complex host of reasons (2, 12, 13)(14){Bray, 2024 #8465}.

Bray et al. (2024) provides a critical review of barriers that can hinder BED identification (stage 1), treatment-seeking (stage 2), and treatment access and engagement (stage 3) at the levels of the individuals who experience BED, the healthcare providers/systems who care for individuals with BED, and the broader public sphere shaping the environment BED exists in (**Figure 1**){Bray, 2024 #8465}. These barriers encompass a wide spectrum, including denial/self-stigmatization, prioritization of physical complications over underlying psychological issues, miseducation about who can have BED, demographic disparities in healthcare utilization, stigmatization from healthcare providers, insufficient provider education and training on BED, insufficient BED screening, limited resources for finding, seeking, and coordinating care, eating disorder (ED) provider scarcity and wait lists, geographic access challenges, treatment costs, inadequate insurance coverage, and negative expectations/fears related to treatment outcomes.

# Barrers to Binge Eating Disorder Detection and Diagnosis

### Patient-Level Barriers

Patient-level barriers to BED identification generally include deficient self-recognition (often due to miseducation about who can have BED and the validity of BED as an autonomous DSM mental health disorder as well as attending to weight gain, gastrointestinal issues, and other physical ailments associated with BED rather than the underlying psychopathology (e.g., emotion dysregulation, trauma history, negative affect and negative urgency, often likely related to self-denial)), deflecting/avoiding self-identification (often related to self-stigmatization about having an eating disorder (ED) or mental health diagnosis), and missed opportunities for detection (often related to marginalization, racism, and stigmatization that can cause marginalized individuals to avoiding healthcare systems or avoid discussing binge eating behaviors with healthcare providers) (**Figure 1**){Bray, 2024 #8465}.

### Provider-Level Barriers

Provider-level barriers to BED identification generally relate to deficits in detection, screening, and diagnosis that stem from healthcare provider biases and deficient provider education and training on BED (**Figure 1**){Bray, 2024 #8465}.

### Systemic Barriers

Systemic barriers to BED detection are generally similar to patient-level barriers and include stigmatization, lack of education and awareness about BED (specifically related to its overall prevalence, demographic prevalence, validity as a DSM-5 mental health diagnosis, potential severity, full prognosis, including symptoms and consequences, and low media representation), and prioritization of physical health and appearance over mental health (**Figure 1**){Bray, 2024 #8465}.

# Barriers to Seeking, Accessing, and Engaging in Binge Eating Disorder Treatment

### Patient-Level Barriers

Patient-level barriers to BED treatment-seeking, access, and engagement generally include insufficient resources to find, coordinate, and receive care, including deficiencies in: knowledge of treatment resources (e.g., treatment approaches, options, providers, centers, insurance coverage policies, and financial aid options/resources); time required to seek, access, engage in, and coordinate interdisciplinary care; financial aid options to help cover treatment costs; insurance coverage; transportation to- and from treatment; geographic access/proximity to treatment resources; ED provider specialists (and long waitlists); and resources to coordinate communication between multiple providers in a multidisciplinary team. Negative expectations about treatment can also hinder patient treatment-seeking and engagement by resulting in healthcare system avoidance due to perceived stigmatization, marginalization, healthcare inequity based on race, gender, and ethnicity; and due to shame, self-stigmatization and denial about having BED, an ED, and/or a mental health diagnosis. Fears about facing treatment hardships, letting go of the coping/eating behaviors (often associated with trauma/adversity), and “sticking with” treatment when it becomes difficult are also relevant patient-level barriers to treatment-seeking and engagement (**Figure 1**){Bray, 2024 #8465}.

### Provider-Level Barriers

Provider-level barriers that can prevent an individual with BED from seeking, accessing, and engaging in treatment largely pertain to stigmatization from healthcare providers and insufficient resources to assist patients in finding/coordinating care, including deficiencies in provider education and training on BED treatment approaches and options, specialists and treatment centers, and financial aid resources as well as insufficient provider use of referrals for ED specialists, insufficient provider assistance in coordinating care, and insufficient compliance with empirical support for rapid response/behavior change within the first 3–4 treatment weeks (**Figure 1**){Bray, 2024 #8465}.

### Systemic Barriers

Systemic barriers to BED detection are generally similar to patient-level barriers and usually include insufficient resources (and knowledge of resources) to find, coordinate, and receive care (as identified in section 1.3.1) and stigmatization occurring at the levels of the healthcare providers/systems and systemically (**Figure 1**){Bray, 2024 #8465}.

# Our Proposal for Hope

Here, we propose a multifaceted approach to comprehensively address existing barriers that can hinder BED identification (stage 1), treatment-seeking (stage 2), and treatment access and engagement (stage 3) at the levels of the patient, healthcare providers/systems, and the general public (including public health policy)(**Figure 2**).

## Patient-Level, Provider-level, and Systemic Barriers to BED Identification and Treatment Seeking, Access, and Engagement

The barriers that impede adult BED detection, treatment-seeking, and treatment access continue to change and evolve, as does our awareness of them as a field. The themes identified here represent new and emerging barriers identified in the literature that can obstruct adult BED detection, diagnosis, treatment-seeking, and treatment access and engagement.

Here, we extend the existing literature by providing a theoretical model of how these barriers can interact and influence each other at different stages of the treatment-seeking and engagement process (**Figure 1**). Our model suggests that individuals with BED may face patient-level, provider-level, and systemic barriers at three stages in the process of treatment-seeking and access: stage 1) identifying BED; stage 2) seeking BED treatment; and stage 3) receiving BED treatment. These barriers may prevent individuals from recognizing their condition, seeking help, finding appropriate care, and engaging in treatment. Our model also implies that some barriers may be more prevalent or salient at certain stages than others. For example, denial and self-stigmatization may be more problematic in identifying and detecting BED (stage 1), while costs and insurance coverage may be more relevant at the treatment-seeking and engagement stages (2 and 3).

## Barriers to BED Recognition, Detection, Screening, and Diagnosis (Stage 1)

### Patient Level Barriers to Self-Recognition

Patient-level barriers to identifying BED pertain largely to self-recognition (**Figure 2**) and can be categorized broadly as follows:

1. Deficient self-recognition (e.g., due to miseducation about who can have BED (12, 14, 20, 24-26), lack of education about BED (12, 14, 20, 24, 25, 27, 28), and recognizing physical repercussions of BED (e.g., weight, gastrointestinal symptoms) vs. underlying psychopathology [e.g., emotion dysregulation, trauma history, negative affect, negative urgency (15, 16)1, also likely related to denial (12, 18, 20, 22-24)](12-14, 16-21, 26, 28).
2. Deflecting/avoiding self-identification (often related to self-stigmatization about having an ED or mental health diagnosis (12, 14, 18, 20, 22-24, 26)).
3. Missed opportunities for detection (e.g., avoiding healthcare systems to avoid marginalization (e.g., racism and stigmatization (14, 18-20, 22, 24, 27, 29)), not discussing binge eating behaviors with healthcare providers due to self-stigmatization, internalized stigmatization, and shame (12, 14, 18, 20, 22-24), and under-utilization of healthcare services among minority populations (14, 17, 20, 27)).

#### Deficient Self-Recognition

A variety of literature identifies BED as a highly undetected disorder (12, 13, 30). For example, studies find that 93.4–96.8% of individuals who meet DSM criteria for BED never receive a formal diagnosis (12, 13, 31), and 67.3% do not perceive the need for formal treatment (12). These findings suggest many individuals who have BED do not recognize they have an ED. This possibility is supported by findings in the literature, in which limited self-recognition of BED is consistently recognized as a barrier to seeking- and engaging in treatment (12, 14, 32). This may occur in large part due to miseducation about who can have an ED/BED (12, 20, 24-26, 32) and due to old misconceptions that ascribe EDs exclusively to thin, affluent, white, cis-gendered females (the “SWAG: skinny, white, affluent, girl” stereotype (33))(20). The literature now reflects a growing understanding that white affluent cis-gendered females are more likely than their respective counterparts to perceive a need for treatment and/or receive a diagnosis and treatment (12). The result is that this demographic has traditionally saturated the treatment-seeking population and research populations in turn (20).

Despite the prevalence of the “SWAG” stereotype, this demographic does not exclusively represent all individuals who experience BED. For example, black, indigenous, and people of color have higher prevalence rates of BED than their white peers (34-36) but comprise <10% of participants in BED research studies (20, 37), are less likely to be screened by medical professionals for EDs (38, 39) and are 50% less likely to be diagnosed or receive care (34, 35, 37, 38, 40, 41). Sexual minorities also have increased risks for developing an ED (42), with a nationally representative US-based study finding greater prevalence of adult BED in non-heterosexual participants (2.2%) than in heterosexuals (0.8%)(43). Literature on prevalence rates among agender, transgender, and non-binary individuals focuses primarily on youth (44, 45) but also demonstrates transgender young adults have higher BED prevalence rates than their cis-gendered counterparts (28% in females, 64% in males, and 73% in non-binary respondents) (44), with transgender males having higher ED pathology scores than transgender females (45). Other overlooked, under-diagnosed, and under-represented individuals with high prevalence rates of undetected BED include males (12) and individuals in “normally” sized/weighted/shaped bodies (12) and low socioeconomic status (12, 45-48), especially those with food/nutrition insecurity (past or present)(45-53) or use of government assistance programs like Supplemental Nutrition Assistance Program (SNAP), food stamps, or welfare (45, 49, 51, 53)), as addressed in Bray et al., 2022 (20).

Poor education about the diagnostic validity and criteria ofBED (e.g., that it is an autonomous DSM-5 mental health diagnosis) has also been identified as a potential barrier to BED detection in the literature (14, 18, 20, 24, 26, 28, 32, 54).

#### Deflecting Self-Identification

Literature also suggests many individuals with BED recognize, prioritize, and/or focus on physical issues often associated with BED (e.g., weight, gastrointestinal issues) but overlook the underlying mental health issues and ED psychopathology [e.g., emotion dysregulation, trauma history, negative affect, negative urgency (15, 16)1](16-20, 28, 30, 55). Weight overvaluation is thought to be a central feature of the underlying psychopathology for many individuals with BED (16, 56-62), possibly contributing to this phenomenon. The valuation of body weight/shape/size and physical health over mental health underpinnings may also result from denial (12, 20, 22), shame (12, 18, 20, 22-24, 26, 32, 54, 63), and stigmatization (17, 24, 26, 32, 63) associated with having an ED (17, 24, 26, 32, 63) and/or mental health diagnosis (17, 26, 63). These possibilities are recognized in Bray et al., 2024 (14) and the literature.

#### Missed Opportunities for Detection: Often Related to Systemic Sociocultural Barriers

Many patient-level self-detection barriers are related to (and further fortified by) sociocultural norms around weight and eating behaviors, as well as sociocultural views around physical and mental healthcare prioritization and use. For example, in Becker et al.’s 2010 qualitative study of perceived social barriers to care for EDs among ethnically diverse health consumers (26), a Puerto Rican male participant expressed a view that seeking help was “silly” and that “eating issues were ‘something I should deal with in myself,’ and ‘more of a personal thing than anybody else helping me with it.’” Similarly, an African American female participant stated, “I’ve had a lot of black women tell me that black women don’t really have EDs, eating problems, however, it’s phrased…. in a lot of people’s minds, it’s a white person’s problem,” and “no one ever looked at me [as possibly having an ED] because, you know, white girls [have EDs], not black girls” (26).

These particular barriers are also often related to sociodemographic disparities in healthcare utilization and treatment, as identified in the literature (14, 17, 20, 25-27, 64-69). This barrier pertains to healthcare avoidance in some racial, ethnic, and sociodemographic populations driven by sociocultural beliefs about healthcare utilization, marginalization from healthcare providers (e.g., racism and stigmatization), and disparities in treatment quality receipt based on race, ethnicity, or other sociodemographic factors) (17, 20, 25-27, 64-69). For example, a 2022 review on racism in healthcare reported that racialized minorities experience inadequate healthcare and feeling dismissed in healthcare interactions associated with lack of trust and delay in seeking healthcare (27). Notably, the patient-level barrier of sociodemographic disparity in healthcare utilization identified here is intertwined with additional provider-level barriers related to racism and marginalization that can result in patient healthcare avoidance and inferior patient care which prevents BED detection and referral to treatment engagement (addressed below).

Outside of ethnic and racial disparities in healthcare quality and use, socioeconomic status can also present a barrier to healthcare access for individuals who lack health insurance or resources to access a primary care provider, thereby missing the opportunity for BED recognition or screening) (12, 20, 22, 26, 70).

### Provider-Level Barriers to BED Detection

Provider-level barriers to BED identification generally relate to deficits in detection, screening, and diagnosis and are supported in the literature (14). For example, a 2017 randomized clinical trial found that among 100 women who qualified as having a DSM-diagnosed ED and enrolled in a BED intervention study (suggestion self-identification and high motivation for treatment-seeking), 99% had received health-related services in the past year, yet only 42% received services related to weight or EDs and only 4% had received an ED diagnosis in that time, as verified by insurance claims codes (31). These findings suggest that in an insured population of women who meet gender stereotypes for having an ED (and so are more likely to be detected for an ED based on gender), express motivation for treatment (suggesting higher likelihood of discussing eating behaviors with the provider), and have had at least one service contact with their health care provider (and thus at least one opportunity for their ED to be detected), only 4% received an ED diagnosis (31). Moreover, findings suggest that missed provider screenings are more prevalent among minorities, as addressed above (12, 14, 20, 38, 39, 45-49, 51, 53). Overall, deficiencies in provider detection, screening, and diagnosis can occur for a variety of different reasons but generally relate to provider biases, stigmatization, and miseducation about BED.

#### Healthcare Provider Biases

Implicit healthcare provider biases can compromise healthcare quality and equity, causing individuals with BED to avoid/delay healthcare utilization and/or avoid discussing BED symptoms with healthcare providers (12, 14, 17-20, 22, 24-29, 55, 63-69). In further support of this possibility, Hamed et al.’s 2022 review on healthcare staff’s racial attitudes, beliefs, and implicit racial biases revealed a range of negative stereotypes regarding racialized minority healthcare users who were viewed as “difficult” and racial biases that negatively influence medical decisions (27). Similarly, a “multi-ethnic (including African-American)” female participant in Becker et al. (2010) reported her psychologist “did not believe she had an ED because she was Black” and “didn’t fit the stereotype” further reporting “when … I explained to her things that had happened… [she] said she didn’t know how she would be able to help any further because she didn’t feel that I fit the stereotype or the protocol [of] someone with an ED” (26).

Provider biases that impede BED detection can also pertain to weight biases (e.g., focusing on weight gain/loss, gastrointestinal issues, and other physical ailments associated with BED, as identified in the literature (12, 14, 17-20, 22, 24, 26-29, 55, 63). These biases can also result in deficient provider screenings independent of patient avoidance.

Provider stereotypes about who can have an ED can also lead to insufficient BED screenings in minoritized populations (12, 17, 18, 20, 24-26, 32). Recognizing, screening for, prioritizing, and treating physical issues often associated with BED (e.g., weight, gastrointestinal issues) but overlooking or ignoring underlying mental health issues and ED psychopathology (as discussed above) (18, 28) has also been identified in the literature (14, 28) and can prevent or delay BED detection until associated physical symptoms are “severe and pronounced” (28).

Overall, these provider biases and deficiencies can result in missed opportunities for recognition and detection, both through deficient provider screenings and through breaches in the patient-provider relationship and communication, which can drive patients with BED to withhold information about their eating behaviors to avoid marginalization, stigmatization, and shame.

#### Deficient Provider Education and Training on BED

Deficient provider education and training on BED can also result in deficient screening and diagnosis (14, 71-73). In the literature, providers express a perceived lack of standardized or validated assessment tools for BED, a perceived lack of unified guidelines on using existing standardized or validated assessment tools, and a lack of education and training on standardized assessment tools and guidelines as barriers to screening and diagnosis (71-73). A lack of routine screening for BED in primary care or other settings has also been identified (12, 13, 17-20). Deficient provider education on the diagnostic validity and criteria of BED (e.g., that it is a valid autonomous DSM-5 mental health diagnosis) has also been identified as a provider-level barrier (14, 16, 18, 24, 26, 28, 32, 54). For example, a recent study including 405 healthcare providers from the US found that 93% of general healthcare providers and 89% of psychiatrists among the survey respondents were not able to correctly identify the diagnostic criteria for BED (Cao et al., 2019 as cited in Bilic et al., 2020 (32, 74)). Literature also suggests deficient provider education and training on diagnosing and treating BED can impede screening and detection (18, 22, 28, 32). Similarly, provider de-prioritization or avoidance of addressing and treating BED, often related to stigmatization, lack of education and training, low treatment success rates, and perceived financial concerns (24, 28), can also produce deficient screening (**Table 3**).

### Systemic Barriers to BED Detection

Systemic barriers to BED detection are generally similar to patient-level barriers and so will not be discussed at length here. These generally include:

1. Stigmatization (14, 17, 24, 26, 32, 54, 63, 75-92).
2. Lack of education and awareness about BED, specifically related to:
   1. Overall prevalence (12, 20, 24, 25).
   2. Demographic prevalence (12, 14, 20, 24-26, 32).
   3. Validity as a DSM-5 mental health diagnosis (14, 16, 18, 20, 24, 26, 28, 32, 54).
   4. Symptoms and consequences of BED (12-14, 17-20, 22, 26, 54).
   5. Low media representation of BED (18).
3. Prioritization of physical health outcomes over mental health (14, 20, 31, 93-98).

## Barriers to Treatment-Seeking (Stage 2), Access, and Engagement (Stage 3)

Treatment-seeking (stage 2; **Figure 2**) can be viewed as a contemplation/planning stage that is dependent on identifying the presence of BED (stage 1) and often required for an individual with BED to access and receive treatment (stage 3). Similarly, accessing and receiving treatment (**Figure 1**) is dependent on identifying BED (stage 1) and is often also dependent on treatment-seeking behaviors such as investigating treatment options and coordinating care and financial aid (stage 2). Thus, treatment-seeking (stage 2) and treatment access/engagement (stage 3) are discrete yet dependent steps in achieving treatment outcomes associated with recovery and remission. Because the barriers and proposed solutions to treatment-seeking and treatment access/engagement are very similar, we have grouped them here.

### Patient-Level Barriers to Treatment-Seeking and Engagement

#### Insufficient Resources to Find, Coordinate, and Receive Care

Patient-level barriers that can prevent an individual with BED from seeking and/or accessing and receiving treatment if sought (**Figure 1**) largely pertain to insufficient resources to find, coordinate, and receive care, including (14):

1. Knowledge of treatment resources (e.g., information on treatment approaches, options, providers, centers, and financial aid) (18, 22, 24, 28, 32, 54).
2. Time required to seek, access, engage in, and coordinate interdisciplinary care (18, 26, 99-102).
3. Financial aid options to help cover treatment costs (12, 18, 22, 26, 32, 55, 63, 70, 103, 104) and awareness of financial aid resources (18, 22, 28, 32, 54).
4. Insurance coverage (12, 22, 26, 70).
5. Transportationto and from treatment (22, 99-102, 105).
6. Geographic access/proximity to treatment resources (20, 26, 28, 32, 106).[[1]](#footnote-1)
7. ED provider scarcity and waitlists (20, 28, 32, 107).2
8. Insufficient resources to coordinate communication between multiple providers in a multidisciplinary team (18, 26).

##### Insufficient Knowledge of Treatment Resources

Various literature identifies insufficient knowledge of treatment resources (e.g., information on treatment approaches, treatment options, providers, treatment centers, and financial aid) as a barrier to treatment-seeking and treatment-engagement (14, 18, 22, 24, 28, 32, 54). For example, Johns et al.’s thematic synthesis of literature on current ED healthcare services identified “lack of ED experience, understanding, and knowledge among primary care professionals, particularly among general practitioners, practice nurses, and social workers” as a primary unhelpful experience and barrier to the help-seeking process (28). Johns et al. also reported that “primary care professionals saw the lack of training and resources in EDs as a barrier [43],” though this barrier was more commonly associated with a lack of confidence in screening for EDs in the primary care setting due to a commonly perceived lack of well-validated universal screening protocols for EDs (28). A 2001 study examining treatment barriers in an ethnically diverse community sample (N=61 women with EDs, 33 with BED, recruited through a community flyer) also found that 10.3% of participants (3/29) endorsed lack of transportation as a reason for not seeking treatment (22).

##### Treatment Costs and Insurance Coverage

Literature also identifies treatment costs and insurance coverage issues as barriers to BED treatment seeking and access (14). For example, a study estimating one-year healthcare costs and utilization of adults with BED based on clinical notes in the Department of Veterans Affairs electronic health record database from 2000–2011 found the mean total unadjusted one-year healthcare costs for individuals with BED in 2011 (including total healthcare, inpatient, outpatient, and pharmacy costs) were $33,716 ± $38,928 (N=257), which was estimated to be $18,152 higher than those associated with matched VA patients without an ED (p<0.001)(108). Moreover, recent findings suggest BED has high prevalence rates among individuals of low socioeconomic status (12, 45-48) who often require government assistance (20, 45, 49, 51, 53), suggesting reduced feasibility of funding the $18,152 annual treatment costs in these individuals. A 2019 study that used data from the 2012-2013 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC-III) also reported 25% of adults with DSM-5-defined BED reported an annual income of <$20,000 (thus less than the estimated annual costs associated with BED healthcare use (108))(56) and 44% reported an annual income of <$35,000 (less than the total unadjusted annual costs of healthcare use for individuals with BED)(108))(56).

Individuals with BED also consistently report treatment costs (12, 18, 22, 26, 55, 63) and inadequate insurance coverage (12, 22, 26, 70) as barriers to care. A 2010 cross-sectional qualitative study of perceived social barriers to care for EDs found that although 94% of participants reported having healthcare at the time of the survey, economic or health insurance constraints were still consistently identified as a barrier to treatment (26). One participant reported prematurely discontinuing treatment due to discontinued insurance coverage; another reported attending a treatment facility 2.5 hours away from home while continuing to see their PRIMARY CARE PROVIDER (2.5 hours away) due to coverage rules within their HMO (26). A third participant reported their insurance did not cover all their treatment needs (26). Tamargo et al. (2022) discuss healthcare policies that drive insurance coverage decisions (e.g., “medical necessity”), the roles of insurance companies in determining insurance coverage provisions, current limitations in insurance coverage, reasons for denial, the ethical implications of current insurance practices, and directives for improvement at length (70).

##### Transportation

Literature on transportation to- and from treatment as a treatment barrier is less direct. Cachelin et al.’s 2001 study examining treatment barriers in an ethnically diverse community sample (61 women with EDs, 33 with BED, recruited through community flyer) found 10.3% of participants endorsed lack of transportation as a reason for not seeking treatment (22). Additional evidence of transportation as a treatment barrier can be found in reasons for research dropout. Striegel-Moore et al. (2001) reported 20.8% of participants in their comparison of BED and bulimia nervosa in a community sample were interviewed by phone due to scheduling constraints or lack of access to transportation (100). Wilfley et al. (2000) reported 9.8% of participants who were screened by phone to participate in their study on comorbid psychopathology in BED did not participate because of time conflicts or deficiencies and 2.8% did not participate due to transportation limitations or being too far from the clinic (102). Thompson-Brenner et al. (2013) recognized transportation and time constraints as possible contributors to the observed disparity in dropout rates between individual vs. group self-help/guided self-help treatment (mean 26.1% vs. 40.3%) and between different ethnicities (101). In their estimate of the true costs of BED treatment, Jenkins et al. (2022) identified “out-of-pocket expenses” as an important factor, which “focused largely on transportation.” Lastly, Goode et al. (2023) report “several” eligible participants in their pilot open trial of an appetite awareness and lifestyle modification intervention for black women at risk for BED being unable to participate “due to work or transportation challenges” (99).

##### Time Burden

Literature identifying the time burden required to seek, access, engage in, and coordinate interdisciplinary care as a barrier to treatment-seeking and engagement is also less prevalent and direct, though it does exist (14, 18, 26, 99-102). For example, individuals with BED commonly cite time as a reason for research dropout, as identified above (99-102). In further support of the time burden associated with coordinating care and engaging in treatment, one participant in Herman et al.’s 2014 mixed-methods study on patient experience with DSM-5-defined BED reported seeing a variety of specialists, “my rheumatologist, …my gynecologist, the endocrinologist, …the nutritionist,” (18). Additionally, multiple patients report on time burdens identified as barriers to care in Becker et al.’s 2010 cross-sectional qualitative study of perceived social barriers to care for EDs (“it was a hassle to switch around the doctors, and things”)(26).

##### Geographic Proximity

Similarly, literature consistently identifies geographic access/proximity to treatment resources (14, 20, 26, 28, 32, 106) and ED provider scarcity and waitlists (14, 20, 28, 32, 107) as barriers to treatment entry and engagement. In Becker et al.’s 2010 cross-sectional qualitative study of perceived social barriers to care for EDs, one patient reported: ‘‘I think access to care can be a big problem. Even if it’s not just a factor of, ‘I don’t have insurance, I don’t have money,’ finding places at least here where I live that treat eating problems is hard. There are not a lot of places here” (26).

##### Provider Specialist Scarcity and Wait Times

Patients and providers also consistently identify “long waiting lists and a lack of [treatment provider and] resources with no guarantee of admission and treatment by more specialized services for eating disorders” (28) as major treatment barriers (14, 20, 28, 32, 107, 109-115). Johns et al.’s 2019 systematic review and thematic synthesis of patient, family, and provider experiences of current ED healthcare services found that “‘referring on’ [often ocurred] to under-resourced specialist service struggling to respond to demand (109, 114, 116, 117) [and] ED service [scarcity] created limited access (113, 115, 118), geographical barriers (113), long waiting lists and delays (109, 112, 113, 115) rigid admission rules based on single treatment modalities and ED physical traits (113, 115, 118). Lower BMI took priority (115, 119); referrals were only accepted for serious cases (112-115, 120). Furthermore, specialist ED care provided no guarantee of treatment even after gaining access (115), with the risk of losing a place if another patient took priority (114, 115) and immediate discharge occurring after weight restoration, with little if any aftercare (115)” (28).

While most of the research on provider scarcity and wait times is in the context of anorexia and bulimia nervosa, empirical support does exist in the context of BED. For example, Bell et al.’s 2004 prospective observational study of 125 patients with BED (N=27) or BN (N=98) referred to a supervised self-help program over a 2-year period and attended the initial mental health screening (demonstrating some interest in change) found that patient wait times ranged from 1–22 weeks; patients engaging treatment had significantly shorter wait times than those who never attended a single appointment (median 4 weeks in patients who engaged [68%] and 6 weeks in patients who failed to engage [32%]; p=0.445)(107). When wait times were stratified as short (≤ 4 weeks) or long (≥5 weeks), the odds ratio (OR) of attending a treatment appointment was 2.4 times greater for those with “short” wait times (107). A fitted regression model further suggested the odds of appointment attendance and treatment engagement reduced by 15% per week of wait time (OR =0.85, *p* = 0.002) (107), suggested clients should start treatment within 4 weeks of their assessment and no later than 10 weeks to ensure greatest likelihood of attendance.

Regarding treatment time courses, Gilo et al. (2006, 2007, 2012) found that rapid response to treatment (e.g., ≥65–70% reduction in binge eating by week four of treatment (121-123)) characterizes ~44–67% of participants across different treatment modalities (e.g., fluoxetine (122), CBT (121, 122), fluoxetine and CBT (122), CBT guided self-help (123), and behavioral weight loss (121)) and predicts binge eating remission and reductions in binge eating frequency, ED psychopathology, and weight loss (121-123). While rapid response was found to be unrelated to baseline variables, a possible relationship between treatment wait times and rapid response remains to be tested.

#### Negative Expectations About Treatment

A cluster of patient-level barriers has also been identified in the literature that can lead to healthcare avoidance and prevent an individual with BED from seeking and/or accessing/receiving treatment if sought (**Figure 1**) and that generally pertain to negative expectations about treatment (14). These barriers generally relate to stigmatization and treatment fears, addressed below.

Barriers related to stigmatization identified here and elsewhere include (14):

1. Healthcare system avoidance due to provider stigmatization (see section 2.1).
2. Sociodemographic disparities in healthcare utilization, often driven by marginalization and disparities in healthcare quality within healthcare systems and sociocultural norms about healthcare use (see sections 2.1.1.3 and 2.1.2.1).
3. Healthcare avoidance due to shame, self-stigmatization, and denial about having BED, an ED, and/or a mental health diagnosis (see section 2.1.1.2).

Barriers related to treatment fears include (14):

1. Fear of facing treatment hardships.
2. Fear of letting go of the coping/eating behavior (often associated with trauma/adversity).
3. Tolerating (“sticking with”) treatment when it becomes difficult.

Interestingly, these three possible treatment barriers have little empirical investigation in the context of BED, to our knowledge. For example, the literature base on “fear of facing treatment hardships” focuses more on populations with anorexia nervosa (e.g., facing fears of weight gain and “breaking food rules”/facing “fear foods”) (124, 125). However, some support does exist for patient ambivalence/low motivation to change in the context of BED (14, 32, 55).

“Fear of letting go of the coping/eating behavior (often associated with trauma/adversity)” also has little direct empirical support in the context of BED but does have some indirect support. For example, systematic reviews and meta-analyses collectively demonstrate strong associations between trauma history (including adverse childhood experiences (ACEs), adverse life experiences (ALEs), family-related non-abuse ALEs, and post-traumatic stress disorder (PTSD)) and BED (126-130). Similar associations have been observed in obesity,(130-132) which has high comorbidity with BED (2, 5, 57). For example, Felitti’s hallmark ACEs Study (133) found that individuals with obesity and comorbid ACEs perceived excess body weight to feel “safe;” whereas major weight loss was perceived as “threatening”(134) and associated with high attrition rates (>50%) (131, 133-135). Whether a similar fear of weight loss may exist among individuals with BED and comorbid adverse experiences remains to be tested.

Lastly, the possible barrier of insufficient willingness or ability to tolerate/“stick with” treatment hardships surprisingly lacks direct empirical support in the context of BED, to our knowledge, outside of Bray et al., 2024 (14). However, retention rates for BED treatment are generally low (136), ranging from 42–88% (36, 137-141), and early discontinuation of care is a common quandary (11, 136, 142). Whether low retention and early discontinuation of care are related to tolerating treatment hardships requires further testing.

Additionally, several other patient-level treatment barriers are consistently identified in the literature:

1. Belief that BED is “not that big of a deal,” and consequently deprioritizing treatment (12, 22, 26, 54) both at the patient (12, 22) and public levels (26, 54).
2. Patient ambivalence/low motivation to change (32, 55).
3. The fear/belief that “others can’t help” (22, 24, 26).
4. Lack of social support (26, 32).
5. Aversion to being treated alongside individuals with low-weight EDs, such as anorexia nervosa (a distinctly different ED associated with different underlying psychopathology), which can worsen weight stigma and shame (12).

### Provider-Level Barriers to Treatment-Seeking and Engagement

Provider-level barriers that can prevent an individual with BED from seeking treatment and/or from accessing/receiving treatment if sought (**Figure 1**) largely pertain to stigmatization from healthcare providers (see sections 2.1.1.3 and 2.1.2.1), and insufficient resources to assist patients in finding/coordinating care (14). This includes insufficient provider education and training on BED treatment approaches and options, specialists and treatment centers, and financial aid resources, as well as insufficient provider use of referrals for ED specialists and insufficient provider assistance in coordinating care (11, 12, 28, 143). For example, in Becker et al.’s 2010 qualitative study of perceived social barriers to care for EDs among ethnically diverse health consumers (26), a female participant of Polish, Hungarian, and Italian heritage stated, “I was pretty much the one that got my own help” (26). This also includes not pushing for rapid response/behavior change within the first 3–4 treatment weeks (14, 24, 28, 121-123, 144, 145), as addressed in section [2.2.1.1.4](#_4.2.2.1.1.4_Time_Burden).

### Systemic Barriers to Treatment-Seeking and Engagement

Systemic barriers to BED detection are generally similar to patient-level barriers (14) and will not be discussed at length here. These generally include the insufficiency of resources identified in section 2.2.1.1 and stigmatization (both from healthcare providers and systemically) addressed in sections 2.1.2.1, 2.1.1.3, and 2.1.1.1.

## Proposed Solutions to Treatment Barriers: Systems-Level Public Policy Interventions

The treatment barriers identified in Bray et al. (2024) and elsewhere emphasize the need for systems-level solutions to improve BED detection, screening, diagnosis, treatment-seeking, and treatment access and engagement. Our proposed emphasis on systems-level public policy solutions aligns with findings from Bray et al., 2022 (20), in which several environmental factors identified as contributing to BED were also described as public policy issues (e.g., systematic oppression, marginalization, economic and food insecurity, stigmatization and its psychological impacts, social messaging and social media, and “predatory” food industry practices and environments). For example, one participant noted:

*“…with tobacco, we were working on these treatments, and pharmacology, and all these sorts of things, and we really didn’t start to see drops in [tobacco use] until we changed the tobacco environment. … Leaning on a public health perspective ...if you can have a more optimal environment … that allows our individual treatments to have a better chance for success. Because if you’re trying to use … individual treatments to combat a [public policy issue], that’s a really tall order,” (P19 as quoted in Bray et al., 2022 (20))*

In further support of the need for public health and public policy solutions to improve BED detection, screening, diagnosis, treatment-seeking, access, and engagement, we first point to literature identifying BED as a highly undetected disorder (e.g., 93.4–96.8% of individuals with BED are never formally diagnosed, 67.3% do not perceive the need for treatment, and 56.4–86.8% never pursue or receive treatment (2, 12, 13)). The lack of recognition/detection, diagnosis, treatment-seeking, and engagement can exist for a variety of complex reasons highlighted in Bray et al., 2024. While some of these reasons result from patient-level barriers, many are systemic, occurring at the levels of healthcare providers/systems and the general public at large, often contributing to patient-level barriers in turn.

To exemplify, Johns et al.’s 2019 systematic review and thematic synthesis of current ED healthcare services found that “for individuals with EDs, the primary care service was described as an ‘obstacle’ or ‘barrier’ to care, rather than the first port of call or effective ‘gate-keepers’ to specialist services,” (28). Johns et al. also found that for family and friends of individuals with EDs, “help-seeking was initially sought in primary care or community settings” but were generally not effective/helpful and “self-help books, internet resources, support-based organizations [and/or] private treatment were where most of the ‘useful help’ was located.” Similarly, Bilic (2020) found that “lack of knowledge and experience among health professionals from outside the ED fieldmay contribute to delayed diagnosis and suboptimal treatment” (32).

Together, these and other findings emphasize two points. First, these findings suggest the need for primary care providers to receive more adequate education and training on EDs, including BED screening, detection, workup, and treatment options, as proposed in [Solutions #4](#Solution ) and [5](#Solution ) below (sections 3.4 and 3.5). Second, these finding suggest individuals with BED and their friends and families are receiving information about BED from “self-help books, internet resources, support-based organizations, [and] private treatments;” not from their primary care providers. Therefore, efforts aiming to improve BED detection, identification, treatment-seeking, and treatment engagement should focus on providing education at the point of “consumer contact” – e.g., through direct-to-consumer marketing by providing BED education at the point where those with BED (and their friends and families) are looking for it (e.g., “self-help books, internet resources, support-based organizations, [and] private treatments,”), as proposed in [Solutions #1](#Solution ) and [3](#Solution ) below (sections 3.1 and 3.3). Overall, these and other findings suggest the benefits of systemic public health/policy solutions that target the healthcare, mass media, and public policy systems that influence the environment in which BED exists, rather than targeting primary care providers or those with BED individually.

## Proposition #1: Public Campaign(s) to Increase Public Education About BED

First, we propose the need for public campaign(s) to increase public education about BED.

### Aim 1: Reduce Stigmatization that Impedes BED Recognition, Treatment-Seeking, and Treatment Engagement

First (Aim 1), the proposed campaigns should aim to reduce stigmatization and shame that are often cited as barriers to self-identification, disclosing symptoms to healthcare providers, seeking treatment, and engaging in treatment once sought (12, 14, 18, 20, 22-24). This aim can be accomplished through four core educational sub-aims.

First, increasing public education and awareness of the high lifetime prevalence rates associated with BED (e.g., 4.5–31% (2, 3)) can help normalize the diagnosis and dismantle stigmatization and shame, thus increasing self-identification, provider detection, treatment-seeking, and treatment engagement (12, 18, 20, 22-24).

Second, providing demographic information about who can have BED can help dispel the “SWAG: skinny, white, affluent, girl” stereotype (33) that incorrectly ascribes EDs exclusively to thin, affluent, white, cis-gendered females (20). Demographic education campaigns can also help increase awareness of the high risk and prevalence rates of BED in minority socioeconomic, racial, ethnic, sex, gender, sexual orientation, body weight, and body size populations who are often underrepresented in research and overlooked clinically (20), as addressed in sections 2.1.1.1, 2.1.2.1, and 2.1.3.

For example, literature supports the growing understanding that white affluent cis-gendered females are more likely than their respective counterparts to perceive a need for treatment and/or receive a diagnosis and treatment (12) and have thus traditionally saturated the treatment-seeking population (and research populations as a result) (20). However, this demographic does not exclusively represent all individuals who experience BED. Studies suggest that 93.4–96.8% of individuals who meet DSM criteria for BED never receive a formal diagnosis (12, 13); 67.3% do not perceive the need for treatment (12); and 56.4% – 86.8% never receive or pursue treatment (2, 12). These overlooked, under-diagnosed, and under-represented individuals often include males (12), individuals in “normally” sized/weighted/shaped bodies (12), and individuals with low socioeconomic status (12, 45-48), especially those with past or present histories of food/nutrition insecurity (45-53), or use of government assistance programs like SNAP, food stamps, or welfare (45, 49, 51, 53)), as addressed in Bray et al., 2022 (20). Additionally, Black, Indigenous, and people of color have higher prevalence rates of BED than their White peers (34-36), but comprise <10% of participants in BED research studies (37), are less likely to be screened by medical professionals for EDs (38, 39), and are 50% less likely to be diagnosed or receive care (34, 35, 37, 38, 40, 41). Sexual minorities also have increased risks for developing an ED (42), with a nationally representative U.S. study finding greater prevalence of adult BED in non-heterosexual (2.2%) than in heterosexual participants (0.8%)(43). Literature on prevalence rates among agender, transgender, and non-binary individuals focuses primarily on youth (44, 45) but also demonstrates transgender young adults have higher prevalence rates of BED than their cis-gendered counterparts (28% in females, 64% in males, and 73% in non-binary respondents) (44), with transgender males having higher ED pathology scores than transgender females (45). Providing public education around these issues can help marginalized and under-represented individuals with BED (or at risk) more readily self-identify and self-screen.

Third, emphasizing inclusive language (e.g., identity-first language: “individuals with BED” vs. “BED patients/individuals”) can help reduce stigmatization by separating the person from the diagnosis/condition (146-151).

Fourth, increasing public awareness and education around stigmatization (20, 54, 81, 83, 85-87, 90, 91, 152-160) and discrimination (20, 83, 161-170) as they pertain to weight disorders (20, 90, 91, 152, 153, 155), EDs (20, 85-87, 90, 154, 157, 159), and BED specifically (20, 81, 85) – at the levels of the patient/self, institution(s) (e.g., healthcare systems), and society/public can help to reduce sociocultural stigmatization and discrimination in these conditions (171, 172).

The proposed campaigns should specifically focus on providing education about the forms of stigmatization and discrimination individuals with BED experience (e.g., stigma and discrimination related to weight (20, 90, 91, 152, 153, 155), having an ED (20, 81), having a mental health diagnosis (20), and perceived eating behavior (20, 81)), as well as the impacts stigmatization and discrimination can have on individuals with BED (20), including the often harmful and traumatic psychological impacts that contribute to the disorder (20) as well as unequal and unjust healthcare quality and treatment (20, 54, 154), unequal employment opportunities and security (20), and potential for marginalization and oppression (20, 157). The proposed campaigns should recognize the differences in stigmatization that may exist across gender (156, 158), race/ethnicity (83, 157), and sexual orientation (160). Overall, the goal of providing education around stigmatization and discrimination as it pertains to BED is to help reduce stigmatization and discrimination, thus creating a safer environment in which individuals with BED can more readily self-identify, disclose their struggles, and seek and engage in treatment.

### Aim 2: Enable Self-Identification

Second (Aim 2), the proposed campaigns should aim to enable self-identification by increasing public awareness around four core topics related to BED, as described below.

First, providing education about the validity of BED as an autonomous DSM-5 ED and mental health diagnosis can help validate individuals with this condition and support access to care. Providing diagnostic education about BED can increase self-recognition and identification in individuals who do not recognize their binge eating behavior as disordered, often due to sociocultural norms and healthcare provider biases and ignorance (14, 16, 20). In support of the possible benefits of public education campaigns on BED validity, one BED expert stated, *“I have to say, Vyvanse [e.g., lisdexamfetamine demethylate, a stimulant medication for attention deficit hyperactive disorder, ADHD, that is the only FDA-approved medication for BED at the time of this publication], with all of the ads that they did, was incredibly helpful for [BED] research because people are self-identifying as having BED at much younger ages,” (P72 as quoted in Bray et al., 2024).*

Second, providing education about the signs, symptoms, and DSM diagnostic criteria associated with BED can help increase self-detection and identification, as described in [Solution #1, Aim 2.1](#Solution ) and in [Solution 4, Aim 2.3](#Solution ) (section 3.4.2) below.

Third, providing demographic information about who can have an ED can help dispel the “SWAG” stereotype (33) and increase awareness of the high risk and prevalence rates of BED in minority populations who are often underrepresented in research and overlooked clinically (20), as described above. This can help increase self-identification, regardless of demographic status.

Fourth, increasing public awareness of weight bias (12, 13, 16-21) and possible connections between weight changes, gastrointestinal issues, and other physical symptoms commonly associated with BED (16) and common underlying ED psychopathology (e.g., emotion dysregulation, trauma history, negative affect, negative urgency (15, 16)1) can help individuals with BED link their perceived “weight problem(s)” (12, 13, 16-21) to possible ED(s). Use of slogans such as “we came for the vanity and stayed for the sanity,” popular in peer-led, mutual-help, community-based eating recovery programs (e.g., Overeaters Anonymous)(173, 174) may help link weight (“vanity”) to psychopathology (“sanity”).

### Aim 3: Promote Treatment-Seeking and Engagement

Third (Aim 3), the campaigns should promote treatment-seeking and engagement through four core education sub-aims.

First, fostering a demographically inclusive public education about who can seek and receive treatment for BED can help encourage treatment-seeking and access, particularly among minority populations. The rationale behind this sub-aim is that marginalized and minority individuals with BED may be inspired by campaigns that show individuals they identify with (e.g., of their socioeconomic status, race, ethnicity, sexual orientation/preference, pronouns, body weight/shape/size) seeking and receiving treatment for BED to believe BED treatment is possible and acceptable for them, too.

Second, advertising the benefits of treatment can help offset fears about treatment hardships and behavior change, and foster positive attitudes about treatment-seeking and engagement. This assumption is supported by a variety of literature demonstrating direct-to-consumer advertising can positively influence patients’ awareness, knowledge, and communication with healthcare providers about advertised treatments (175, 176). In Bray et al (2024), experts suggest Vyvanse advertising may have similar results, as addressed in [Solution #1, Aim 2.1](#Solution ) (section 3.1.2) above.

Third, championing the success of “treatment ambassadors” (e.g., successful treatment stories from individuals of all demographics) can further help to dispel fears about treatment hardships and encourage treatment-seeking and engagement among individuals of all demographics. There is a precedence for championing the benefits of ED treatment and recovery (177-179). In the commercial sector, ED recovery programs advertise their success rates, positive treatment outcomes and often promote ambassadors (often public figures) who have had success in their particular program(s) (179, 180). However, empirical support for this tactic has not been published. Peer-led mutual support programs also often promote the benefits of recovery based on the experiences of those who have recovered or are recovering within the anonymity of their specific meetings and fellowships (173, 181, 182). In 12-Step programs, this is done through sponsorship and individual sharing guidelines that promote sharing “experience, strength, and hope” at meetings, and these tactics do have empirical support (173, 183, 184).

Fourth, campaigns designed to emphasize the importance of mental health can counterbalance the current sociocultural emphasis on external appearance (20, 185-187) and help reduce mental health stigmatization and weight over-valuation/bias that often prevent individuals with BED from recognizing BED and seeking and engaging in treatment (20). Thus, campaigns designed to create awareness around mental health relevance can: a) help dismantle mental health stigma (31, 98) and promote an environment where, b) identifying a mental health disorder like BED feels safer to individuals who experience these disorders, and c) where seeking and engaging in treatment for these disorders are more positively reinforced with more positive (vs. negative) connotations.

### Aim 4: Simplify Treatment-Seeking and Enable Treatment Access

Fourth (Aim 4), the proposed campaigns should aim to simplify treatment-seeking and enable treatment access by increasing awareness of treatment resources in five core areas/sub-aims:

First, the proposed campaigns should aim to increase public education and awareness of current standard empirically supported treatment approaches for BED and their respective success rates. These include psychological interventions (e.g., CBT, CBT-guided-self-help, interpersonal therapy, and psychodynamic therapies), medications (e.g., antidepressants, anticonvulsants, and weight loss medications), nutritional counseling, and behavioral weight control (which combines nutritional and psychological counseling to promote healthy behavior change)(9, 188). Success rates associated with these standard interventions generally range from 38.3–43.6% (2, 4) and recurrence rates generally range from 49–64% (2, 10)). Increasing public awareness of these treatment approaches and their associated success rates can help alleviate the burden of treatment-seeking for individuals with BED who may not have information on what treatment options are available to them. Providing information on treatment success rates can also help individuals with BED make better-informed decisions about their treatment plan(s).

Second, campaigns should aim to increase public awareness of available directories of BED treatment providers and centers. For example, the Provider Directories provided by the National Eating Disorder Association (NEDA) or the Alliance for Eating Disorders Awareness (AEDA) could be of great benefit to individuals with BED interested in seeking treatment (189, 190).

Third, campaigns should also aim to increase public awareness of equal opportunity treatment options with empirical support that are:

1. Free or low-cost.
2. Remote/virtually accessible or community based.
3. Socio-demographically sensitive and inclusive.
4. Sensitive to the unique experiences of individuals with BED.

Examples include:

1. CBT self-help, which can be self-paced to minimize time burden, does not require a therapist or the associated economic and transportation burden(s), has been tested in ethnically diverse urban populations (191), and produces 33–85% reductions in binge eating and abstinence rates of 12.8–47% (191, 192).
2. CBT guided-self-help, which does require the use of a therapist (and the associated costs) but is accessible virtually, thus beneficial for those without transportation resources or geographic limitations, and produces ~47–84% reductions in objective binge eating, abstinence rates of ~36–38%, and remission rates of ~30–50% (193-196).
3. Mindfulness meditation mobile applications (197, 198), which alleviate burdens associated with a therapist (e.g., cost, transportation) and can produce ~30% reductions in Binge Eating Scale (BES) scores (138) but can also have weak mindful eating-specific content if not empirically tested in the context of BED recovery (199).
4. Support group interventions that are free/donation-based, local/community-based, or remote/virtually accessible, socio-demographically sensitive/inclusive. Many support groups are offered by ED foundations (e.g., the ED Foundation (182) and the National Alliance for EDs (181)). Additionally, Overeaters Anonymous (OA), a 12-Step mutual-support, peer-led, community-based intervention, has empirical support (173, 200-207). For example, OA has been found to produce ~70% rates of abstinence from disordered eating for between 30–360 days on average (201), with 46% of those who are abstinent for >30 days reporting never or rarely relapsing (201). There is also strong evidence supporting the efficacy and underlying mechanisms of 12-Step support programs (e.g., Alcoholics Anonymous) in achieving long-term treatment engagement and thus delaying or preventing relapse (173, 184, 208-213) that includes minority populations (213-217). Moreover, free support groups are specifically optimized for individuals who do not have access to formal healthcare interventions (e.g., due to costs, insurance, time constraints, transportation/geography, provider scarcity, and healthcare avoidance (14))(14, 173, 218, 219). They are also optimized for long-term engagement when used independently or as a complement to formal treatment options.

Fourth, the proposed campaigns should seek to promote equal-opportunity treatment solutions such as those identified in sub-aim #3 above and also include telehealth or online platforms for BED treatment, such as videoconferencing, telephone, text messaging, or mobile applications that can deliver evidence-based interventions or peer-led programs to individuals with BED who live in remote or underserved areas. Such platforms may also help reduce costs, travel time, and stigma associated with seeking treatment (14, 138, 173, 181, 182, 184, 191-219).

Fifth, the proposed campaigns should also aim to increase public awareness of any financial aid options available for individuals with BED. This can help alleviate the burden of treatment-seeking for many with BED who have financial hardships.

### Aim 5: Provide Public Education on Provider-Level Treatment Barriers

Fifth (Aim 5), the proposed campaigns should aim to provide public education on provider-level treatment barriers to minimize these barriers and the harm they can cause for individuals with BED (e.g., psychological impacts of stigmatization, including internalization, gaslighting, and healthcare avoidance)(12, 14, 18-20, 22-24, 29). This aim should focus on increasing public awareness and education around the following provider-level barriers (14):

1. Stigmatization within the healthcare system (18-20, 22, 24, 29).
2. Unequal screening in minorities (12, 13, 17-20, 24-28).
3. Weight bias within the healthcare system (12, 13, 16-21).
4. Poor education about BED within healthcare systems (12, 13, 16-20).
5. Poor education on treatment resources within healthcare systems (143).
6. The importance of rapid response for BED recovery (144).

This aim can align with those identified in [solution #4](#Solution ) in section 3.4 below.

### Relevant Considerations for Solution #1: Public Campaign(s) to Increase Public Education About BED

In support of the feasibility of the education and training campaigns proposed here and in sections 3.2 and 3.4 below, the Anna Westin Act of 2015 ([H.R. 2515](https://www.congress.gov/bill/114th-congress/house-bill/2515), [S. 1865](https://www.congress.gov/bill/114th-congress/senate-bill/1865)) set a precedent by calling for the National Institute of Mental Health (NIMH) and the Substance Abuse and Mental Health Services Administration (SAMHSA) funds to be used to train healthcare professionals and school personnel to identify EDs and intervene early (220). Similar policy to provide funding to educate the public on adult BED and barriers to treatment could be helpful.

Additionally, the proposed campaign should leverage multi-media advertising via social media, internet, television, radio, and billboards. This suggestion is based on a variety of literature demonstrating that direct-to-consumer advertising can positively influence patients’ awareness, knowledge, and communication with healthcare providers about the advertised treatments (175, 176). This literature is corroborated by expert reports that Vyvanse (lisdexamfetamine demethylate) advertising may have similar results (14), as addressed in [Solution #1, Aim 2.1](#Solution ) (section 3.1.2) above.

## Solution #2: Public Campaign(s) to Increase Resources for Equal-Opportunity Treatment Engagement

Second, we propose the need for public policy changes that increase equal opportunity treatment resources. First (Aims 1 and 2), the proposed campaigns should aim to increase financial aid options and insurance coverage for BED treatments. This can reduce the costs that often prevent many individuals with BED from seeking or engaging in treatment (18, 22, 40, 70, 103, 104, 221).

Second (Aim 3), the proposed campaigns should seek to increase federal funding for BED research, with specific calls to action for research that can empirically test and support treatment options that are free or low-cost, remote/virtually accessible or community-based, and socio-demographically sensitive/ inclusive, as described in [Solution #1, Aim 4, point #3](#Solution ) in section 3.1.4 above.

In support of the feasibility of the public policy campaigns proposed here, we again point to the Anna Westin Act of 2015 ([H.R. 2515](https://www.congress.gov/bill/114th-congress/house-bill/2515), [S. 1865](https://www.congress.gov/bill/114th-congress/senate-bill/1865)), which also improved health insurance coverage for EDs by clarifying the intent the [Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008](https://www.cms.gov/CCIIO/Programs-and-Initiatives/Other-Insurance-Protections/mhpaea_factsheet.html) (the Parity Law, which required insurance providers to cover individuals with mental illness equally as those with other health issues) to include residential treatment services for EDs (220). Since then, insurance coverage for BEDs has improved, though it remains a barrier to treatment. Tamargo et al. (2022) discuss healthcare policies that drive insurance coverage decisions (e.g., “medical necessity”), the roles of insurance companies in determining insurance coverage provisions, current limitations in insurance coverage, reasons for denial, the ethical implications of current insurance practices, and directives for improvement in their 2022 publication (70). Similar policy to provide funding for equal opportunity BED treatment testing and treatment engagement could have great public benefit both qualitatively and economically.

## Solution #3: Free, One-Stop, Online Resource Platform for Individuals with BED

Third, we propose the need for a free, one-stop, online resource platform that can reduce stigmatization and promote BED education/awareness, self-identification, treatment-seeking, and treatment engagement. This can be accomplished through the following aims:

Given the identification of insufficient resources to find/coordinate care as a major barrier to treatment-seeking and engagement (143) (see sections 2.2.1.1 and 2.2.2), the overarching aim of this proposed solution is to provide – in one free, easily accessible, one-stop, online platform – all resources an individual with BED may need to navigate and heal their disorder. Specifically, this proposed solution recognizes the importance of early intervention and rapid recovery in BED care (123, 143) and aims to provide resources in such a way that an individual who screens positive for BED can be seamlessly directed to resources on BED management and care as well as information on stigmatization, resources for addressing stigmatization, and a one-stop platform that can be used to help coordinate care and communication across a multidisciplinary team of providers, thus alleviating this burden (coordinating care and communication between a variety of multi-disciplinary specialists) from the patient.

### Aim 1: Companion Resources to Parallel Solution #1 Aims

First (Aim 1), the proposed online resource platform should contain informational material and resources that complement the aims of the BED public education campaign proposed in [Solution #1](#Solution ) (Section 3.1).

### Aim 2: Screening Tools for Self-Identification

Second (Aim 2), the proposed resource platform should provide free online screening tools for individuals with BED to self-screen and self-identify. The proposed screening tools may include (222):

1. The ED Examination-Questionnaire (EDE-Q, full or brief) (223, 224).
2. The Binge Eating Scale (BES) (225-227).
3. The Eating Beliefs Questionnaire (EBQ, full or brief) (228, 229).
4. The Questionnaire on Eating and Weight Patterns-Revised (QEWP-R) (230).
5. The Yale Food Addiction Scale 2.0 (231-233).

It may also be beneficial to preface the screening tools with the diagnostic criteria for BED, as defined by the DSM-5 (1).

### Aim 3: Scalable Treatment Resources

Third (Aim 3), given the importance of early intervention and rapid recovery to BED treatment success, (123, 143) the proposed resource platform should seek to facilitate a seamless transition from screening (Solution #3, Aim 2) to treatment resources, particularly for individuals who screen positive for BED (thus helping to facilitate rapid intervention and recovery). The platform should provide a variety of scalable treatment options and resources, including information on the importance of early intervention and rapid recovery (123, 143) as well as information on:

1. Financial aid options.
2. Insurance provider policies and coverage.
3. Navigating insurance.
4. Provider and Treatment resources (described in Solution #1, Aim 4 above).
5. Treatment options that do not require financial aid or insurance coverage (e.g., options that are free or low-cost, as well as remote, virtually accessible, or local/community-based and sociocultural and demographically sensitive/inclusive, described in Solution #1 (Aim 4) and Solution #2 (Aim 3) above).

### Aim 4: Resources for Coordinating Communication and Care Across Multidisciplinary Providers

Fourth (Aim 4), the proposed resource platform aims to help alleviate the patient burden of coordinating communication and care across multiple multidisciplinary providers. This burden is cited here as a barrier to treatment-seeking and engagement. This aim may be accomplished through secure patient login pages that providers can use to document and communicate care to the patient and other providers on the care team. This aim could be particularly helpful for patients who receive care from multiple providers working within different networks or facilities.

### Aim 5: Resources for Individuals with BED who Experience Stigmatization

Fifth (Aim 5), the proposed resource platform should provide free online resources for individuals with BED who experience stigmatization. In addition to information on stigmatization and its impacts on individuals with BED (proposed in Aim 1 above), this aim should also include resources for healing and reducing stigmatization at the individual/self, institutional/structural, and public levels (171, 172).

### Aim 6: Resources for Healthcare Providers

Sixth (Aim 6), the proposed resource platform should provide free online resources for healthcare providers that align with the aims proposed in [Solution #4](#Solution ) (section 3.4 below) and [Solution #5](#Solution ) (section 3.4.1 below). The goal of this aim (as in Solutions 4 and 5) would be to reduce provider-level treatment barriers and their impacts on individuals with BED. In addition to those proposed in Solutions #4 and 5 below, the proposed resources provided here (in a free, one-stop, online platform) may include:

1. Information on stigmatization (18-20, 22, 24, 29), weight bias (12, 13, 16-21), and under-screening (12, 13, 17-20, 24, 25, 27) within healthcare systems.
2. Information on treating BED (e.g., laboratory work that might be helpful, referrals, and follow-up for individuals with BED to appropriate care options (9, 143, 234-237)).

These resources should also be accessible to individuals with BED, should they wish to share them with their healthcare provider(s).

### Relevant Considerations for Solution #3: Free, One-Stop, Online Resource Platform for Individuals with BED

Importantly, several existing online resource platforms are similar to our proposed solution:

* The NEDA website (238) contains information about a variety of different EDs (including BED), including information on signs and symptoms of BED, screening tools, insurance and legal information/resources, a treatment/provider directory, free and low-cost treatment options (including social support group directories), information on identity and EDs that pertains to socio-demographic minorities and marginalized populations, information on weight stigma and its impacts on mental health, an ambassador program (to champion treatment successes) and professional development courses and resources for providers.
* The EDs Coalition website (239) has information on EDs, including their prevalence in minority and marginalized populations as well as an ambassador program and a variety of resources on parity and insurance, including Medicare and the Anna Westin Act. However, this site caters more to research and policy than to individuals who experience EDs.
* The ED Foundation website (240) offers information on EDs (including BED) that includes signs and symptoms, treatment options, including free and low-cost options and support groups, and mentorship programs.
* The Mayo Clinic (241) offers patient and provider resources specific to BED, including information on symptoms, causes, risk factors, complications, diagnosis (including relevant laboratory workup), treatment approaches/options (including standard treatment options as well as “lifestyle and home remedies,” “alternative medicine” approaches, coping and support, and Mayo Clinic providers).

Various commercial treatment centers also offer all or some of this information. Here, we propose that individuals with BED may benefit from having one definitive unified/streamlined resource platform that combines the aims identified here rather than having several unvetted piecemeal resource options. Importantly, we do not suggest a consensus on how BED should be conceptualized or treated. Rather, we suggest that individuals with BED could benefit from having a one-stop online resource where they can learn about the various existing conceptualizations of BED and use that information to explore treatment options suitable to their needs and circumstances.

In support of the feasibility of the online resource platform proposed here, we again point to the Anna Westin Act of 2015 ([H.R. 2515](https://www.congress.gov/bill/114th-congress/house-bill/2515), [S. 1865](https://www.congress.gov/bill/114th-congress/senate-bill/1865)), which set a precedent by calling for NIMH and SAMHSA funds to be used to train healthcare professionals and school personnel to identify EDs and intervene early (220). Similar policy to provide funding for a free, easy-access, one-stop, online resource platform for BED could have great public benefit.

## Solution #4: Public Health Campaign(s) to Increase Education About BED within Healthcare Systems

Here, we propose the need for public campaign(s) to increase education about BED within healthcare systems. We suggest these campaigns should include the following aims:

### Aim 1: Reduce Stigmatization within the Healthcare System

First (Aim 1), the proposed campaigns should aim to reduce stigmatization that individuals with BED often face from within the healthcare system and site as barriers to self-identification, disclosing symptoms to healthcare providers, seeking treatment, and engaging in treatment once sought (12, 18, 20, 22-24), as also addressed in Solution #1, Aim 1.4. This aim can be accomplished through three core educational sub-aims.

1. Providing education about stigmatization related to BED within healthcare systems (addressed in Solution #1, Aim 1.4).
2. Emphasizing inclusive (“identity-first”) language, as described in Solution #1, Aim 1.3 in section 3.1.1 above).
3. Providing education on weight bias within healthcare systems (12, 13, 16-21), including possible connections between physical symptoms commonly associated with BED (e.g., weight changes, gastrointestinal issues (16)) and common underlying psychopathology of BED, as addressed in Solution #1, Aim 2.4.

### Aim 2: Increase Recognition, Screening, and Detection

Second (Aim 2), the proposed campaigns should aim to increase BED recognition, screening, and detection by targeting provider-level barriers to BED identification (see sections 3.2.1.2 and 4.3.1.2). This aim can be accomplished by providing education focused on three core areas:

1. BED demographics and demographically biased under-screening (12, 13, 17-20, 24, 25, 27). Education related to this sub-aim should focus on dispelling the “SWAG” (skinny, white, affluent, girl) stereotype about who can have an ED (20, 33) and increasing recognition of populations of individuals with BED who have been historically overlooked in the field (20), as addressed in Solution #1, Aims 1.2 and 2.3.
2. Weight bias within healthcare systems (12, 13, 16-21), including possible connections between physical symptoms commonly associated with BED (e.g., weight changes, gastrointestinal issues (16)) and common underlying psychopathology of BED, as addressed in Solution #1, Aim 2.4 and Aim 1.3 of Solution #4 above. The overall goal of this sub-aim is to reduce the potentially harmful focus on weight loss that exists in BED and the focus on the underlying ED pathology, thus increasing BED screening and detection.
3. Diagnostic criteria for BED and recognition of BED as a valid DSM-5 mental health and ED diagnosis separate from overweight and obesity (1), as addressed in Solution #1, Aim 2.1. The overall goal of this sub-aim is to reduce the miseducation that exists within the healthcare system about the validity of BED and its distinction from overweight and obesity and that often impedes BED recognition, screening, detection, and diagnosis (12, 20, 24, 25, 27, 28).

### Aim 3: Promote Narrative-Based Medicine

Third (Aim 3), the proposed campaigns should promote narrative-based medicine (e.g., taking and accounting for patient narratives and lived experiences in the clinical setting and using patient narratives to inform care, including unbiased screening and scalable treatment resources and solutions) (242-245) (242-245). The potential for narrative-based medicine to better inform our current understanding of BED and the barriers that prevent its identification and treatment are well-described (20, 35, 37, 41, 45, 46, 51, 242-245). Furthermore, the themes identified herein emphasize the need for clinical tactics and open-ended research that can access and include the ~70% of individuals who experience BED symptoms but may not recognize their need for treatment (12) as well as the ~95% of individuals with BED who never receive a formal diagnosis (12, 13) and the ~56-87% who never pursue or receive treatment (2, 12). It is equally important to identify screening, treatment engagement, and research recruitment and dissemination tactics and treatment options that include minority and marginalized populations and receive and account for the unique treatment barriers these populations face.

### Aim 4: Increase Provider Education and training on BED Treatment Options and Resources

Fourth (Aim 4) the proposed campaigns should aim to increase provider education and training on BED diagnosis, referrals, treatment options, and resources, as described in [Solution #1, Aims 4](#Solution ) and [5,](#Solution ) and [Solution #3 Aim 3](#Solution ) (sections 3.1.4, 3.1.5, and 3.3.3) above. These can include online courses, workshops, or webinars that can enhance the knowledge and skills of primary care providers/general health practitioners, internists, and any healthcare provider treating BED. This campaign should make use of relevant clinical practice guidelines for BED:

* The American Psychiatric Association’s 2023 practice guidelines for treating patients with EDs, including BED (246, 247).
* Ralph et al.’s 2022 clinical practice guidelines for managing EDs in people with higher weight (236).
* The United Kingdom National Institute for Health and Care Excellence (NICE)’s 2020 clinical guidelines for recognizing and treating EDs, including BED (237).
* The Australia & New Zealand Academy for EDs (ANZAED) 2020 principles on ED treatment and general clinical practice and training standards (143).
* The Australian National EDs Collaboration (NEDC)’s 2018 National Practice Standards for EDs (235).
* Hilbert et al.’s 2017 evidence-based clinical guidelines for EDs: international comparison (9).

Providing certification or accreditation (e.g., continuing medical education (CME) credits or continuing education units (CEU)) for such courses may also help incentivize healthcare providers to receive such training and enable them to signal their expertise and competence in BED treatment, as addressed in [Solution #5](#Solution ) (section 3.5) below.

### Aim 5: Streamline Interdisciplinary Treatment Processes and Communication

Fifth (Aim 5), the proposed campaigns should streamline interdisciplinary treatment processes and communication to reduce patient burden/barrier of coordinating care, addressed in Solution #3, Aim 4.

### Relevant Considerations for Solution #4: Public Health Campaign(s) to Increase Education About BED within Healthcare Systems

As addressed in Section 3.3.7 (“[Relevant Considerations for Solution #4](#Relevant Considerations for Solution )”), several existing online resources are similar to our proposed solution:

* The NEDA website (238) contains information about a variety of different EDs (including BED), including free and low-cost treatment options (including social support group directories)and professional development courses and resources for providers.
* The Mayo Clinic (241) offers patient and provider resources specific to BED, including diagnostic resources (including relevant laboratory workup) and treatment approaches/options (including standard treatment options as well as “lifestyle and home remedies,” “alternative medicine” approaches, coping and support, and Mayo Clinic providers).

Various commercial treatment centers also offer all or some of this information. We propose that BED providers may benefit from having one definitive unified/streamlined resource platform that combines the aims identified here rather than several unvetted piecemeal resource options. Accordingly, we also suggest that the information in the campaign proposed here be made available in the online resource platform, as proposed in [Solution #3, Aim 6](#Solution ) (section 3.3.6 [above](#Solution )).

In support of the feasibility of the online resource platform proposed here, we again point to the Anna Westin Act of 2015 ([H.R. 2515](https://www.congress.gov/bill/114th-congress/house-bill/2515), [S. 1865](https://www.congress.gov/bill/114th-congress/senate-bill/1865)), which set a precedent by calling for NIMH and SAMHSA funds to be used to train healthcare professionals and school personnel to identify EDs and intervene early (220). Similar policy to provide funding for a public health campaign for BED providers could have great public benefit.

## Solution #5: Certification and Accreditation for Provider Training in BED

Lastly, we propose developing and incentivizing education courses on BED in healthcare systems through certifications and accreditations (e.g., CME or CEU). Proposed course content should include BED stigmatization (18-20, 22, 24, 29), patient experience (18-20, 22, 24, 29), screening, and treatment. The proposed certifications and accreditations could be helpful both in incentivizing healthcare providers to engage in these educational initiatives and enabling providers to signal “safe spaces” for those with BED (e.g., by advertising or displaying their credentials), as outlined in the two aims below.

1. **Aim 1:** Educate healthcare providers on BED management and care in various settings (including primary care).
   1. Course content can focus on Aims 1–5 in [Solution #4](#Solution ) (section 4.4.2.1) above.
   2. Course content should incorporate the relevant clinical practice guidelines identified in [Solution #4, Aim 4](#_Aim_4:_Increase) (section 3.4.4) above (9, 143, 235-237, 246, 247).
   3. Courses can be included into medical school curriculum and offered for CME accreditation and specialized certification.
   4. Course content should specifically incorporate the training standards suggested in the ANZAED 2020 principles on ED treatment and general clinical practice training standards (143).
2. **Aim 2:** Signal safe treatment/healthcare spaces for those individuals with BED.
   1. Course certificates and accreditations can be displayed and leveraged to signal safe and informed treatment/healthcare spaces for individuals with BED.
   2. Accreditations and certifications can specifically signal education on stigmatization and weight bias.

As addressed in Solution #4 (section 3.4.6) and elsewhere above, the Anna Westin Act of 2015 ([H.R. 2515](https://www.congress.gov/bill/114th-congress/house-bill/2515), [S. 1865](https://www.congress.gov/bill/114th-congress/senate-bill/1865)) provides a precedent for directing federal funds to train healthcare professionals and school personnel in ED treatment (220), thus supporting the potential feasibility of this solution.

## Conclusions

In conclusion, this review explored the current barriers to treatment access for adult BED from the perspectives of expert researchers, clinicians, and healthcare administrators. We identified several patient, provider, and systems-level barriers that can prevent BED detection, diagnosis, treatment-seeking, and treatment engagement. Addressing these barriers requires a concerted effort from healthcare providers, policymakers, and researchers. By reducing internal and external obstacles, improving education, and expanding affordable treatment options, we can enhance the prospects for individuals affected by BED to receive the care they need and improve their mental health outcomes.

We also developed a theoretical model of how these barriers can interact and influence each other at different stages of treatment. Our findings have implications for research, practice, and policy in BED. We suggest that more education and awareness campaigns, tools that can simplify screening, treatment-seeking/access, accessible and affordable treatment options, and supportive and empathic care are needed to improve the identification, referral, and treatment engagement of individuals with BED. We also recommend that future studies further investigate the experiences of individuals with BED (in general and in relation to treatment barriers), identify how to best integrate multi-disciplinary team approaches, examine the effectiveness of peer mentorship programs, and secure more funding for BED research.

Funding for research that can test new treatment options that are: 1) free or low cost; 2) sensitive to the unique experiences of individuals with BED; 3) inclusive to individuals of all demographics; and 4) easily accessible (e.g., community-based and/or virtually available) is warranted.

## Conflict of Interest

*The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest*.

## Author Contributions

Conceptualization, B.B. and H.Z.; methodology, B.B. and H.Z.; formal analysis, B.B., and H.Z.; investigation, B.B. and H.Z.; resources, B.B.; data curation, B.B.; writing—original draft preparation, B.B.; writing—review and editing, B.B., D.W., A.S., A.J.S., C.B., and H.Z.; supervision, H.Z.; project administration, B.B. and H.Z. Online artificial intelligence (e.g., BING chat (bing.com) and [ChatGPT (openai.com)](https://openai.com/chatgpt)) was used as an editorial tool for manuscript preparation. All authors have read and agreed to the published version of the manuscript. All authors agree to be accountable for the content of the work.

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## Tables and Figures

## Table 1

Table : Treatment Barriers Spontaneously Identified by BED Experts in Bray et al., 2024

|  |  |  |  |
| --- | --- | --- | --- |
|  | ***Treatment Barriers Spontaneously Identified by BED Experts in Bray et al., 2024*** |  | |
|  | 1) Treatment Costs | 6 (43%) | |
|  | 2) Inadequate Insurance Coverage | 5 (36%) | |
|  | 3) Stigmatization from Healthcare Providers | 5 (36%) | |
|  | 4) Insufficient Provider Screenings | 4 (29%) | |
|  | 5) Demographically Characteristic Healthcare Under-Utilization | 3 (21%) | |
|  | 6) Denial and Self-Stigmatization about Having an ED, Mental Health Diagnosis, or Medical Diagnosis | 3 (21%) | |
|  | 7) ED Provider Scarcity and Waitlists | 3 (21%) | |
|  | 8) Geographic Access to Treatment Resources | 3 (21%) | |
|  | 9) Insufficient Resources to Find/Coordinate Care\* | 3 (21%) | |
|  | 10) Misunderstandings about Who can have an ED | 3 (21%) | |
|  | 11) Recognizing, Screening for, and Prioritizing Physical Problems Associated With- or Resulting From an ED but not the Underlying Mental Health Issues and ED Psychopathology§ | 3 (21%) | |
|  | 12) Poor education on BED diagnosis‡ | 2 (14%) | |
|  | 13) Treatment Time¥ | 2 (14%) | |
|  | 14) Fear of Facing Treatment Hardships | 1 (7%) | |
|  | 15) Fear of Letting Go of the Coping/Eating Behavior£ | 1 (7%) | |
|  | 16) Tolerating/“Sticking with” Treatment when it becomes Difficult | 1 (7%) | |
|  | **Table Legend:** Results expressed as n (%). Percentages: n/14 times 100. **Abbreviations:** **BED**, BED; **ED**, eating disorder.  \*Including time, transportation, and resources required to coordinate communication between multiple providers.  §The psychopathology thought to drive BED most likely varies according to the individual. Commonly endorsed models of conceptualizing BED psychopathology are presented in Bray et al., 2023 and Neyland, Shank, & Lavender 2020. These include emotional dysregulation, trauma history, negative affect, negative urgency, stigmatization, and self-denial.  ‡E.g., that it is in fact a valid autonomous DMS-5 mental health diagnosis.  ¥E.g., having time to find/coordinate care and pursue/engage in treatment.  £Binge eating behavior is often viewed as a coping behavior associated with trauma/adversity in BED (Cashini et al., 2016; Cuthbert et al., 2020; Grogan et al., 2020; Molendijk et al., 2017; Palmisano et al., 2016) and obesity (Hovel et al., 1988; Felitti et al., 1993; Felitti et al., 1998; Felitti et al., 2019; Williamson et al., 2002; Palmisano et al., 2016). | |

## Figure 1

Figure : Theoretical Model of Patient-, Provider-, and Systems-Level Barriers that can Impede BED Identification (Stage 1), Treatment-Seeking (Stage 2), and Treatment Engagement (Stage 3).

A screenshot of a diagram

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**Figure 1:** Theoretical model of where, when, and how patient-, provider-, and systems-level barriers that can impede BED identification (Stage 1), treatment-seeking (Stage 2), and treatment engagement (Stage 3), as spontaneously identified by 64% of BED experts (9/14**)**.

## Table 2

Table : Model of Patient-Level, Provider-Level, and Systemic Barriers to BED Treatment-Seeking, Access, and Engagement, as Identified by BED Experts

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | ***Subtheme 1) Barriers to Recognizing/Detecting/Identifying BED*** | | ***7 (50%)*** | |
|  | **i) Patient-Level Barriers to BED Recognition/Detection/Identification** | | **7 (50%)** | |
| 1. Desire to avoid stigmatization from healthcare providers | | 5 (36%) | | |
| 1. Demographically characteristic healthcare avoidance/under-utilization† | | 3 (21%) | | |
| 1. Denial/self-stigma re: ED/mental health diagnosis | | 3 (21%) | | |
| 1. Miseducation about who can have BED (which can prevent self-detection)¥ | | 3 (21%) | | |
| 1. Recognizing physical repercussions of BED (e.g., weight, gastrointestinal symptoms) vs. underlying psychopathology\* | | 3 (21%) | | |
| 1. Poor education about BED as a diagnosis‡ | | 2 (14%) | | |
|  | **ii) Provider-Level Barriers to BED Recognition/Detection/Identification** | | **7 (50%)** | |
| 1. Stigmatization from healthcare providers | | 5 (36%) | | |
| 1. Unequal screening in racial, ethnic, sex, gender, and sexual orientation minorities¥ | | 4 (29%) | | |
| 1. Screening for physical issues (e.g., weight/GI) not psychological ones (e.g., underlying ED pathology)\* | | 3 (21%) | | |
| 1. Miseducation about who can have BED (which can prevent detection and screening)¥ | | 3 (21%) | | |
| 1. Recognizing physical repercussions (e.g., weight/GI) vs psychological pathology\* | | 3 (21%) | | |
| 1. Poor education on BED as a diagnosis‡ | | 2 (14%) | | |
|  | **iii) Systemic Barriers to BED Recognition/Detection/Identification** | | **7 (50%)** | |
| 1. Sociocultural stigmatization around weight, EDs, BED, and mental health problems | | 5 (36%) | | |
| 1. Lack of education and awareness about BED, including: | | 3 (21%) | | |
| * 1. Miseducation about who can have BED (which can prevent detection and screening)¥ | | 3 (21%) | | |
| * 1. Poor education on BED as a diagnosis‡ | | 2 (14%) | | |
| 1. Prioritization of physical appearance over mental health | | 3 (21%) | | |
|  | ***Subthemes 2 and 3) Barriers to BED Treatment Seeking, Access, and Engagement*** | | ***8 (57%)*** | |
|  | **i) Patient-Level Barriers to BED Treatment-Seeking, Access, and Engagement** | | **8 (57%)** | |
| 1. Treatment cost§ | | 6 (43%) | | |
| 1. Insurance coverage§ | | 6 (43%) | | |
| 1. Desire to avoid healthcare provider stigmatization | | 5 (36%) | | |
| 1. Demographically characteristic healthcare utilization† | | 3 (21%) | | |
| 1. Denial/self-stigmatization about having an eating disorder and/or mental health diagnosis | | 3 (21%) | | |
| 1. Insufficient resources for finding/coordinating care£ | | 3 (21%) | | |
| 1. **\*\*Geographic access to treatment resources\*\*** | | 3 (21%) | | |
| 1. **\*\*Eating disorder provider scarcity and wait lists\*\*** | | 3 (21%) | | |
| 1. Having/prioritizing/taking time required to seek, access, coordinate, and engage in treatment | | 1 (7%) | | |
| 1. Fear of facing the discomfort and hardships associated with treatment (e.g., “treatment is hard”) | | 1 (7%) | | |
| 1. Fear of letting go of the coping/eating behavior (often linked to trauma/adversity) | | 1 (7%) | | |
|  | **ii) Provider-Level Barriers to Seeking, Accessing, and Engaging in Treatment** | | **8 (57%)** | |
| 1. Stigmatization from healthcare providers | | 5 (36%) | | |
| 1. Insufficient resources for finding and coordinating care£ | | 3 (21%) | | |
| 1. Time associated with treatment engagement | | 2 (14%) | | |
|  | **iii) Systemic Barriers to Seeking, Accessing, and Engaging in Treatment** | | **8 (57%)** | |
| 1. Treatment costs§ | | 6 (43%) | | |
| 1. Insufficient insurance coverage§ | | 5 (36%) | | |
| 1. Systemic/societal stigmatization | | 5 (36%) | | |
| 1. Insufficient resources for finding/coordinating care£ | | 3 (21%) | | |
| 1. **\*\*Geographic access to treatment resources\*\*** | | 3 (21%) | | |
| 1. **\*\*Provider/treatment center scarcity and wait lists\*\*** | | 3 (21%) | | |
| 1. Sociocultural prioritization of physical health outcomes and appearances over mental health | | 3 (21%) | | |
| 1. Time required for treatment | | 2 (14%) | | |
|  | **Table Legend:** Results expressed as n (%). Percentages: n/14 times 100. **Abbreviations:** **AN**, anorexia nervosa; **BED**, binge eating disorder; **BN**, bulimia nervosa; **ED**, eating disorder.  †For example, some racial, ethnic, sexual, and gender minorities are less likely to access and utilize healthcare.  ¥ For example, although thin white affluent women have traditionally dominated eating disorder treatment-seeking and research populations (and demographics), more recent studies reveal that black, indigenous, and people of color have higher prevalence rates of BED than their white peers but make up <10% of participants in BED research studies, are less likely to be screened by medical professionals for EDs, and are 50% less likely to be diagnosed or receive care. Emerging literature also suggests sexual minorities are at an increased risk for EDs, with transgender young adults having higher prevalence rates of BED than their cis-gendered counterparts (28% in females, 64% in males, and 73% in non-binary respondents) and transgender males having higher ED pathology scores than transgender females. These minority and marginalized populations often also experience multiple environmental factors associated with BED pathology (e.g., economic precarity, food/nutrition scarcity, stigmatization, and discrimination). See Bray et al., 2022 and citations therein for references.  \*The psychopathology thought to drive BED most likely varies according to the individual. Commonly endorsed models of conceptualizing BED psychopathology are presented in Bray et al., 2023 and Neyland, Shank, & Lavender 2020. These include emotional dysregulation, trauma history, negative affect, negative urgency, stigmatization, and self-denial.  ‡E.g., that BED is in fact a valid autonomous DMS-5 mental health diagnosis that is separate from overweight and obesity, and that not all EDs present as AN or BN.  §E.g., treatment cost prioritization and lack of information on financial assistance as well as insufficient health insurance coverage, information, and/or lack of health insurance.  £ Including time, transportation, and resources required to coordinate communication between multiple providers.  **\*\***Geographic access to treatment resources and provider/treatment center scarcity and wait lists are treatment barriers that pertain more to treatment access/entry (stage 3) than to treatment-seeking (stage 2). | | |

## 

## Figure : Proposed Solutions to Treatment Barriers: Systems-Level Public Policy Interventions.

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**Figure 2:** Proposed Solutions to Treatment Barriers: Systems-Level Public Policy Interventions. Theoretical model of possible solutions that can be enacted to overcome or minimize the barriers identified in **Figure 2**

## Table 3

Table : Empirical Support Linking Deficient Provider Screenings to Possible Underlying Causes (e.g., Provider De-prioritization or Avoidance of Addressing and Treating BED)

|  |
| --- |
| Johns et al.’s 2019 systematic review and thematic synthesis of healthcare professionals’ perspective of barriers to care and unhelpful experiences in current ED healthcare services stated: |
| *“professionals in primary care settings (for example [general practitioner] practices, general wards, student/resident placements) described …[facing] challenges and difficulties with individuals with eating disorders, their families and the eating disorder healthcare interface itself. Primary care professionals argued that individuals with eating disorders are difficult and challenging and create tension between all parties (248). They felt that people with eating disorders often lack motivation and adherence with treatment … (116, 248., 249-252) Therefore, some primary care professionals were reluctant to work with eating disorders (253), with expressions of ‘frustration’ (250, 252), ‘resentment’ (254) and ‘irritability and disgust’ in the physical comorbidities (251, 254), considering eating disorders as being ‘low prestige’ compared with other illnesses (254), with some stating they ‘don’t like’ or ‘don’t want to work with them’ (252, 255). Other primary care professionals indicated that they just ‘don’t’, or ‘don’t want’ to screen for eating disorders (249, 252, 256, 257), as they find them time consuming or too complex (116, 249, 251-253, 258)…” (28).* |
| In a 2017 qualitative study on the experiences of eating disorder treatment in men (Thapliyal et al., 2017 (24) ), lack of expertise in treating eating disorders and perceived incompetence of therapists, ignorance of eating disorders in men, and money-mindedness of therapists emerged as important and critical themes and issues identified in at least half of the autobiographies included in the study. For example, Thapliyal et al., 2017 (24) provide a passage from a male with BED describing his treatment experience, as published in Henning & Woods 2004 (259): |
| *“Until this stay, I had seen eight different professionals who tried to help me and at the same time only two knew how to work with someone who suffered from an eating disorder,” (p. 67)*(259)*.* |
| A “multi-ethnic (including African-American)” female participant in Becker et al.’s 2010 qualitative study of perceived social barriers to care for eating disorders based on perspectives from ethnically diverse health care consumers (26) stated: |
| *“I felt like basically what I was saying [to my psychologist] was going over her head, …it was like it was almost going in one ear and out the other, she wasn’t paying any attention to me or taking her job seriously…” (26).* |
| **Abbreviations:** **BED**, binge eating disorder; **ED**, eating disorder. |

1. Geographic access to treatment resources and provider/treatment center scarcity and wait lists are treatment barriers that pertain more to treatment access/entry (stage 3) than to treatment-seeking (stage 2). [↑](#footnote-ref-1)