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Stigma and Eating and Weight Disorders

Rebecca Puhl · Young Suh

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Abstract Although research has consistently documented the prevalence and negative health implications of weight stigma, little is known about the stigma associated with eating disorders. Given that weight stigma is a risk factor associated with disordered eating, it is important to address stigma across the spectrum of eating and weight disorders. The aim of this review is to systematically review studies in the past 3 years evaluating stigma in the context of obesity and eating disorders (including binge eating disorder, bulimia nervosa, and anorexia nervosa). Physical and psychological health consequences of stigma for individuals with obesity and eating disorders are discussed. Recent studies on weight stigma substantiate the unique influence of stigma on psychological maladjustment, eating pathology, and physiological stress. Furthermore, research documents negative stereotypes and social rejection of individuals with eating disorder subtypes, while attributions to personal responsibility promote blame and further stigmatization of these individuals. Future research should examine the association of stigma related to eating disorders and physical and emotional health correlates, as well as its role in health-care utilization and treatment outcomes. Additional longitudinal studies assessing how weight stigma influences emotional health and eating disorders can help identify adaptive coping strategies and improve clinical care of individuals with obesity and eating disorders.

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R. Puhl (✉) · Y. Suh
Rudd Center for Food Policy and Obesity, University of Connecticut, 1 Constitution Plaza, Suite 600, Hartford, CT 06103, USA
e-mail: Rebecca.puhl@uconn.edu

Y. Suh
e-mail: young.suh@yale.edu

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Introduction

Weight-based stigma and discrimination are prevalent in the USA and are often rooted in societal weight-based stereotypes that individuals with obesity are lazy, weak willed, sloppy, lacking in self-discipline, unintelligent, and lacking motivation to improve health [1–4]. These stereotypes are present in many settings, including the workplace, health-care facilities, educational institutions, and the media, leaving overweight and obese persons vulnerable to stigma and unfair treatment [5, 6].

Although several decades of research have provided substantial documentation of weight stigma among individuals with obesity, less work has examined stigma associated with eating disorders (EDs) such as anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED). Persons with obesity experience high levels of dieting, eating, and body image concerns, and approximately 30 % of overweight individuals who seek treatment engage in binge eating or compulsive overeating [7, 8]. Research also indicates a high lifetime prevalence of obesity among individuals with eating disorders, including BED (ranging from 36 to 42 %) or BN (31–33 %) and history of overweight among men with AN (39 %) [9–11]. Compared to individuals without eating disorders, adults with BN or BED are more likely to report a history of severe childhood obesity [12]. Among individuals with BED, as many as 63 % report that weight problems preceded their dieting or binge eating behaviors. Furthermore, available evidence suggests that weight stigmatization itself is a risk factor for maladaptive eating behaviors, eating disorder symptoms, and obesity [13–16]. For these reasons, individuals who are at risk of experiencing weight stigmatization are also at risk for disordered eating, and vice versa, indicating that stigma associated with body weight and EDs is important to

address across the spectrum of eating and weight disorders. The aim of this review was to summarize recent research on stigma as it pertains to obesity and eating disorders, with attention to the emotional and physical health consequences of stigma for individuals with obesity, BED, BN, and AN.

Methods

A systematic literature search of studies published between January 2011 and through July 2014 was conducted using electronic psychological, medical, and social science databases including PsycINFO, PubMed, and SCOPUS. As an exception, five studies published prior to 2011 were included when more recent studies relevant to the content of this review were not available. Variations of stigma-related keywords including bias, discrimination, stigma, prejudice, stereotype, victimize, blame, shame, tease, bully, assumption, attribution, attitude, perception, or belief were combined with weight, BMI, obese, overweight, anorexia, bulimia, or binge eating. Additionally, manual searches were conducted with reference lists of retrieved articles and in databases for authors with published work in this field. Unpublished manuscripts, dissertations, commentaries, and qualitative studies were excluded. Additionally, studies without measures specific to an eating disorder subtype (e.g., general eating pathology or composite disordered eating scores) were excluded. Given the aim of this review to summarize health consequences of stigma, studies evaluating stigma in employment and education settings or addressing underlying theories or legal initiatives against discrimination based on weight are not addressed.

Stigma and Obesity

Among adults in the USA, discrimination against individuals with obesity is among the most common forms of discrimination reported and is comparable to rates of racial discrimination, especially among women [17]. Among youth, weight-based bullying is similarly reported by students to be one of the most frequent types of victimization and harassment experienced in the school setting [18, 19], even among racially diverse samples of youth [20]. These views are shared by educators [21] and parents [22], regardless of their child's weight status. Longitudinal trends further suggest that weight-related teasing remains stable over time throughout adolescence into young adulthood, indicating that for many individuals, this is a chronic stressor [23].

Attributions of blame and personal responsibility for excess body weight and resulting negative stereotypes that persons with obesity are lazy, lacking in willpower, and gluttonous, are strongly reinforced by the mass media and further perpetuate societal weight biases. In news coverage of obesity, in entertainment media (such as television and film), and in social media, stigmatizing portrayals of obesity are common [24–27] and have been shown to exacerbate expressions of weight bias [28–30]. Even in children's media content, weight bias is common [31], perhaps partially explaining why expressions of negative weight biases are already present in children as early as preschool age [32].

Both youth and adults who experience weight stigma are at an increased risk for a range of adverse health behaviors and outcomes, many of which can exacerbate disordered eating and reinforce weight gain. Considerable evidence has documented associations between poor psychological functioning and weight stigma. Adults with obesity who experience weight stigma have increased risk of depressed mood [33, 34] (regardless of race), low self-esteem, poor body image [35, 36], and psychological stress [37]. Children and adolescents who experience weight-based teasing and bullying are similarly more likely to experience depressive symptoms [38–40], low self-esteem [38, 39], body dissatisfaction [39–41], psychological distress [42], as well as increased substance use [39]. Importantly, most studies control for body mass index (BMI) and other demographic factors, suggesting that weight-stigmatizing experiences, rather than body weight itself, contribute to psychological maladjustment in youth and adults.

The ways in which individuals cope with experiences of weight stigma and its resulting psychological distress can lead to additional adverse health behaviors related to eating and physical activity. For example, among youth, more frequent experiences of being teased or bullied about their weight is associated with increased binge eating [14, 43]. Youth also report coping with stigma through avoidance of physical activity (often because physical activities at school are common settings where students are teased about weight) and increasing food consumption [18]. Among adults, experimental research shows that overweight women who are exposed to weight-stigmatizing stimuli leads to increased calorie consumption [44, 45] as well as feeling less able to control eating compared to non-overweight women [44]. Importantly, recent evidence indicates that internalization of weight bias among adults (e.g., blaming oneself for one's weight, societal devaluation, and resulting mistreatment) is strongly correlated with psychological maladjustment and eating pathology, including depression, poor body image, and binge eating behaviors [46•, 47–50], as well as reduced motivation and participation in exercise [35, 51]. Preliminary work suggests similar associations with weight bias internalization among adolescents [52].

In recent years, studies have begun to examine the relationship between weight stigma and physiological measures of stress. Experimental research has demonstrated that exposing women to experiences of weight stigma leads to increased blood pressure [44] and cortisol reactivity [53]. Elevated

oxidative stress and cortisol reactivity have also been demonstrated among women who report weight stigma (independent of BMI) in cross-sectional research [54]. Furthermore, a national sample of men and women (N=938) from the Midlife in the United States (MIDUS-II) survey demonstrated that perceived weight discrimination exacerbated the effects of waist-to-hip ratio on glycemic control (HbA(1c) levels) [55], and a study of 7394 adults with overweight or obesity from the Health and Retirement Study found that weight discrimination was positively associated with C-reactive protein, a physiological marker of systemic inflammation [56].

The evidence above linking weight stigma to adverse outcomes of psychological maladjustment, eating pathology, and physiological stress may help to explain recent findings demonstrating impaired weight loss outcomes among treatment-seeking adults who report weight stigma [57, 58], as well as longitudinal research demonstrating an increased risk of obesity and remaining obese over time among individuals who report weight stigma or discrimination [13, 59–61]. These findings further highlight a need to address patients' experiences of weight stigma in the context of treatment, to help individuals implement adaptive coping strategies that could buffer or reduce the negative consequences of stigmatizing experiences. Although little research has examined this issue, preliminary work suggests that addressing weight stigma with patients as a component of psychological treatment may facilitate improvements in psychological well-being and body mass in adults [62] and reduced instances of teasing in youth [63]. Further empirical testing of strategies to help patients cope with weight stigma is needed.

Stigma and Binge Eating Disorder (BED)

Compared to other types of eating disorders, the development of BED is attributed to greater personal responsibility, although individuals with BED are considered the least impaired and distrustful compared to those with AN or BN [64•]. Beliefs that BED is caused by a lack of self-discipline is positively correlated with BED stigma [65•], and compared to AN and BN, BED is perceived to be most reflective of poor self-control [64•]. Blame for one's eating disorder may incite shame, which can reinforce binge eating intentions and behavior [66]. To date, few studies have examined BED stigma, and preliminary evidence warrants additional studies to understand public attitudes (e.g., causal attributions related to social or family environments or psychological vulnerability of individuals with BED) that might influence the extent of BED stigma and its impact on eating pathology and psychological well-being.

As obesity commonly occurs among individuals with BED, several studies have examined experiences of weight stigma in this population. Among adults, several studies consistently show that experiences of weight stigma contribute to binge eating [16, 49, 67]. Some work has documented associations between weight stigmatization with binge eating among students (N=100) but not treatment-seeking bariatric patients (N=99) [16]. Other research suggests that interpersonal weight discrimination (e.g., being disrespected by another person) but not institutional discrimination (e.g., discrimination in employment) is predictive of binge eating [49]. Thus, more work is needed to identify what types of weight stigmatization may increase risk of binge eating and how this differs across individuals of different weight or eating disorder status.

Among youth, similar findings have recently emerged. One study of Hispanic and black girls (N=141) reported that weight-related teasing from parents (but not peers) was associated with binge eating [14]. A longitudinal study additionally showed that among female dieters (N=1827), teasing experiences in late adolescence and early adulthood contributed to greater likelihood of binge eating in later adulthood [68]. Other work has instead found that weight-based teasing among adolescents (N=394) was not directly related to binge eating, but rather promoted increased food consumption as a coping strategy in response to negative affect resulting from teasing experiences. As the severity in binge eating has been documented to worsen with greater negative emotions [69], emotional distress related to weight-based teasing may reinforce eating pathology.

Unlike many other stigmatized groups, research indicates that individuals with obesity, and those with BED, express considerable explicit and implicit weight bias [70–72]. These expressions may reflect internalized weight stigma (IWS), in which individuals begin to internalize negative societal weight biases and blame themselves for the stigma they confront. Several studies evaluating individuals with obesity have consistently documented adverse implications of internalized weight bias for poor psychological functioning (e.g., body dissatisfaction and depression), overvaluation of weight and shape, and concerns about weight, shape, and eating [27, 46•, 48, 73]. Given the potential contributions of IWS to eating pathology and psychological health, research has examined IWS as a risk factor specifically for binge eating. Two studies examining patients in weight loss clinics indicate that greater IWS can increase binge eating [48, 74]. In contrast, three studies evaluating patients with BED did not find a significant relationship between IWS and binge eating [46•, 47, 73], while another study evaluating a community sample of adults found that IWS mediates the relationship between perceived discrimination and eating disturbances [49]. It may be that some individuals with obesity may have certain protective psychological or social factors that mediate the influence of IWS for developing clinical levels of binge eating. It is also possible that in study samples of individuals with BED, the

frequency of binge eating was already too high to detect any significant differences in severity. Given that one study reported greater IWS among treatment-seeking patients with BED than in a community sample of individuals with overweight/obesity (N=100) [47], IWS may in some cases partially explain variances in binge eating. Continued research examining links between IWS and binge eating can provide valuable information for identifying who may be at risk of engaging in binge eating in response to IWS, as well as for developing potential targets of treatment, and adaptive strategies for patients with BED to cope with stigmatization.

Stigma and Bulimia Nervosa (BN)

Negative stereotypes have been documented toward individuals with BN including views that they lack self-discipline, are self-destructive, and have psychological problems [65•, 75–77]. Research additionally shows a considerable level of desire for social distance from individuals with BN [78, 79•], suggesting that social rejection constitutes an important aspect of stigmatization related to BN. However, studies indicate a milder level of social rejection and blame for BN compared to other psychological disorders (e.g., depression and schizophrenia) and obesity [64•, 80, 81]. Furthermore, public perceptions of BN appear to be mixed; although it is largely perceived to be a serious illness [76, 78, 82], some research shows beliefs about the possibility of beneficial aspects of BN and the potential for BN to increase one's popularity and social acceptance [76, 82].

Attributions of personal responsibility have been documented as correlates of BN stigma. Two nationally representative studies and one study of college students found frequent blaming of individuals with BN [75, 78, 79•]. In light of evidence testing causal framing as a strategy for reducing stigma [83–90], studies have comparatively evaluated causal beliefs of BN. Relative to biogenetic explanations and family factors, several studies indicate that both the general public and medical professionals most strongly endorsed psychological (i.e., low self-esteem or body dissatisfaction) and social (i.e., media and peer) influences as causes for BN [77, 81, 82, 91, 92, 93•]. A notable difference between perceptions of the public versus psychologists emerged in one study (N=787), showing that psychologists endorsed greater beliefs in family dynamics as a risk factor for BN [91]. More research is needed to clarify stereotypes and causal attributions of individuals with BN, including studies to examine whether perceptions of BN among the general public and health professionals contribute to patients' BN symptoms or behaviors related to treatment seeking and adherence.

In addition to stigma specific to BN, individuals with BN can also experience stigma because of their body weight. In a case-control study (N=60 cases and 60 controls), 66.7 % of women diagnosed with BN (versus 10.1 % of healthy controls), reported receiving negative comments about their weight or shape [94]. Experiences of weight criticism and stigma are also associated with the development of bulimic behaviors regardless of BMI [49, 95], suggesting that patients' perceived weight stigma could contribute to their onset and maintenance of disordered eating behaviors. Notably, research also shows that some women with BN hold strong anti-fat attitudes and weight stigma toward others [96, 97]. In light of this evidence, more work is needed to examine whether, and to what extent, expressions of weight stigma toward others versus personal experiences of weight stigma relate to eating pathology, body dissatisfaction, and self-esteem among individuals with BN.

Although increasing studies have begun to explore the nature of BN stigma, this field of study remains in its infancy, and major gaps in research exist regarding the physical and psychological health consequences of BN stigma. Given the documented prevalence of weight stigma and its negative health consequences, stigma related to body weight and/or BN could promote dislike and social distance toward individuals who have BN and potentially increase vulnerability to psychological distress such as depression, body dissatisfaction, poor self-esteem, and low self-efficacy, which are frequently documented correlates of weight stigma. Furthermore, existing evidence documenting social rejection, blame, and perceived benefits and acceptability of BN suggests that improved social support for individuals with BN may be warranted. A study investigating stigmatizing attitudes toward AN, BN, and BED demonstrated that for BN (but not for AN or BED), greater stigma was related to the lack of social support [65•]. Thus, it will be informative for future research to examine the relationship between BN stigma and social support offered to individuals with BN by peers, family members, and health professionals.

Finally, it will be useful for future research to examine implications of BN stigma for treatment seeking and adherence. For example, societal attributions of personal responsibility and negative stereotypes about BN could incite feelings of shame or fear of stigmatization among individuals with BN and, in turn, deter them from seeking or adhering to treatment or reinforce secrecy of their bulimic behaviors. It will be important to examine how individuals with BN respond to stigma, and whether certain coping strategies to deal with stigma influence eating pathology or treatment behaviors. Perspectives from primary care physicians, professionals treating eating disorders, and patients are additionally necessary. Although two studies have examined the causal beliefs of BN among medical professionals [91, 93•], research is needed to identify the implications of stigma on providers' assessment of BN, their approach to treatment, and their interactions with patients with BN.

Stigma and Anorexia Nervosa (AN)

Research indicates that individuals with AN may be perceived as boring, weak, self-destructive, psychologically vulnerable, and having less desirable personality traits (e.g., openness, agreeableness, or extroversion) compared to those without AN [76, 98–101]. Experimental studies have additionally demonstrated feelings of uneasiness and fear toward individuals with AN [79•, 99, 102], and two studies using the social distance scale with nationally representative samples highlight considerable social rejection of individuals with AN [79•, 80]. However, some research has conversely demonstrated greater pro-social responses toward individuals with AN, such as empathy, desire to help, and patience [79•, 99]. Thus, discrepancies between supportive intentions and social exclusion require further study to determine whether stigmatization of AN interferes with social support or poses barriers to seeking treatment among individuals with AN.

Stigma from family members is also present toward individuals with AN. In one study, former adolescent patients with AN (N=75) reported parents to be the most frequent source of criticism about their eating disorder [103•]. Teasing from family about eating habits has also been shown to contribute to the development of AN [15]. Whether, and to what extent, stigma about AN from parents and siblings deters adolescents from obtaining help or exacerbates eating pathology requires further study.

To date, only one study has evaluated the implications of AN stigma on treatment-seeking behavior. Of the 75 surveyed patients, 31 % reported delaying visits to physicians in fear of criticism and blame from peers, family, and health professionals, while 34 % reported waiting to undergo treatment in fear of social rejection [103•]. In a study of psychiatrists (N=126), 61.7 % endorsed AN as a "neurotic mental disorder," while 46.1 % perceived AN as a culturally driven female disease [93•]. Whether causal attributions about AN influence treatment recommendations or delivery of care has not been studied, but one study (N=235) observed that compared to biological or ambiguous causal framing, sociocultural explanations of etiology were associated with greater expectations for recovery [75]. Furthermore, one study of community participants (N=983) reported that 39 % believed AN to be "very" or "extremely" difficult to treat [100]. Thus, it is not surprising that research examining public attitudes has documented low expectations for recovery from AN, particularly for females [75, 98, 100].

Research consistently documents that attributions of personal responsibility promote blame for AN [65•, 79•, 100]. However, compared to BN and BED, individuals with AN appear to elicit the least blame and are perceived as most self-disciplined [64•, 75]. These findings may be partially explained by some extent of perceived desirability and admiration associated with AN. For example, in one study (N=75), patients reported jealousy (20 %) and admiration (25 %) from classmates/colleagues and friends because of their eating disorder [103•]. Similarly, among asymptomatic females, a substantial minority believed in some benefits of having AN including increased popularity [82]. The social acceptability of extremely thin body types and associated positive personality attributes such as self-discipline suggest that AN stigma is not entirely negative.

Studies have also examined ideologies (i.e., causal and just world beliefs) that justify biases and prejudices about AN and may reinforce social acceptance of AN stigma. Biological causal beliefs of AN have been associated with both increased and decreased stigma of AN in studies and experiments [75, 79•, 99]. However, research comparing stigma attributed to different eating and weight disorders (N=447) [65•] found that holding "just world beliefs" (i.e., beliefs that individuals deserve their fortunes or misfortunes) predicted stigma only for AN, regardless of participants' causal attributions of eating disorders and acquaintance with affected individuals. Thus, even with a recognition of biological, societal, or family factors that contribute to AN, stigma toward individuals with AN may persist.

To date, very little is known about the consequences of AN stigma on psychological health, such as its links with body image, depression, self-esteem, eating patterns, treatment-seeking behavior, quality of care received, and treatment outcomes. As more work begins to clarify the nature, extent, and sources of stigma toward individuals with AN, it will be important to identify how these experiences in turn influence emotional well-being and eating pathology.

Implications of Stigma for Treatment of Eating and Weight Disorders

The recent evidence summarized in this review indicates that stigma has important, but neglected, implications for the effective treatment of individuals with eating and weight disorders. Experiences of weight stigma can contribute to eating pathology, create barriers to obtaining healthy weight, and increase risk for a range of adverse psychological consequences that can complicate and impair treatment progress. Given prevalence rates of disordered eating, obesity, and weight stigmatization in our society, it is essential to ensure that mental health professionals are aware of stigma and its potential harmful impact on their patients and take steps to reduce biases related to weight or EDs that might be present in their clinical practice.

In response to considerable evidence demonstrating weight biases among physicians and other health professionals [104–106], increasing research has examined strategies to reduce weight bias among medical trainees and health-care providers. Some evidence indicates that educational interventions

Table 1 Topics for future study of stigma related to eating and weight disorders

Domain	Research needs
Obesity stigma	Clarify the influence of weight stigma on physical and emotional health outcomes using longitudinal, prospective studies
	Measure physical health correlates of weight stigma over time (e.g., weight gain, cardiovascular, and metabolic disorders)
	Investigate the effects of stigma on eating and exercise behaviors and physiological reactivity using experimental studies
	Evaluate how IWS influences psychological distress and avoidance of health behaviors in individuals with obesity
	Assess how stigmatizing terminology about weight affects health behaviors among individuals with obesity
	Identify coping strategies that are protective or exacerbate negative health consequences of weight stigma
	Determine the impact of weight stigma from medical professionals on patient-provider relationship, patient motivation for behavior changes, and health-care outcomes
	Identify, test, and compare interventions to reduce weight stigma in health care, medical schools, and the community
BED stigma	Document the nature and extent of stigma toward individuals with BED
	Examine perceptions of stigma experiences (and sources of stigma) among individuals with BED
	Determine whether and how BED stigma affects psychological health, health-care utilization, and treatment outcomes
	Examine perceptions of blame attributed to BED, and its effect on negative affect, and eating psychopathology/behaviors
	Assess how and what types of weight stigma increase risk for binge eating
	Examine the attitudes and behaviors of health professionals toward individuals with BED
	Clarify whether and how causal beliefs about BED influence BED stigma
	Identify adaptive coping strategies to cope with weight and BED stigma among individuals with BED
	Examine the nature and extent of internalized weight stigma among individuals with BED
	Examine whether, and to what extent, internalized stigma influences binge eating or other psychological consequences
	Identify and test strategies to reduce BED stigma in the public and medical community
BN stigma	Examine perceptions of stigma experiences (and sources of stigma) among individuals with BN
	Examine perceptions of blame attributed to BN and its effect on eating psychopathology and related behaviors
	Assess attitudes and behaviors toward patients with BN among primary care providers and mental health professionals
	Determine whether and how BN stigma affects psychological health, health-care utilization, and treatment outcomes
	Determine if and how personal acquaintance and perceived similarity affects stigma toward individuals with BN
	Assess the impact of weight- and shape-related teasing in childhood on later development and maintenance of BN
	Examine whether and how internalized stigma influences psychological distress and bulimic behaviors
	Evaluate whether and how attributions of causality can increase or decrease BN stigma
	Identify adaptive coping strategies to cope with BN stigma among individuals with BN
	Identify and test strategies to reduce BN stigma within the public and medical community
AN stigma	Document the nature and extent of stigma toward individuals with AN
	Examine perceptions of stigma experiences (and sources of stigma) among individuals with AN
	Determine whether and how AN stigma affects psychological health, health-care utilization, and treatment outcomes
	Assess attitudes and behaviors toward patients with AN among primary care providers and mental health professionals
	Assess perceived severity and acceptability of AN within the general public and among individuals with AN
	Assess the impact of weight- and shape-related teasing in childhood on later development and maintenance of AN
	Examine anti-fat and pro-thin attitudes toward oneself and others among individuals with AN
	Clarify the effect of different justification ideologies (i.e., causal and just world beliefs) on expressions of AN stigma
	Examine whether and how internalized stigma influences psychological distress and symptoms of AN
	Identify and test strategies to train clinicians to increase confidence for management of AN
	Identify and test strategies to reduce AN stigma in the public and medical community

emphasizing the complex etiology of obesity, such as biological and genetic contributors of body weight that are outside of personal control, can reduce negative biases among medical trainees and improve self-efficacy of providing treatment to patients with obesity [85–88]. However, several studies have

found a minimal positive effect of providing causal information on anti-fat attitudes [89, 90], indicating a need for more empirical testing. Other approaches have instead highlighted the importance of using sensitive communication when discussing body weight with patients and avoiding terminology that patients may perceive to be offensive or stigmatizing [107–109]. Training on communication strategies may be particularly important in light of research indicating that some patients perceive certain words describing excess body weight to be stigmatizing (e.g., "fatness", "obesity") [108] and that they intend to avoid future health-care appointments if their doctor uses stigmatizing language in reference to their weight [107].

Stigma-reduction efforts such as these may be warranted in the eating disorders field, as recent evidence indicates that mental health professionals who treat eating disorders are not immune to bias. In a recent study, 329 professionals treating eating disorders completed anonymous questionnaires assessing their explicit weight bias, perceived causes of obesity, attitudes toward treating patients with obesity, and perceptions of weight bias among other practitioners [110]. Compared to professionals with less bias, professionals with stronger weight bias expressed more negative attitudes and frustrations about treating patients with higher body weight and perceived poorer treatment outcomes for these patients. Furthermore, although 88 % of professionals felt confident to provide treatment to patients with overweight or obesity, the majority (56 %) had observed other professionals in their field making negative comments about patients of higher body weight, 42 % believed that practitioners who treat eating disorders often have negative stereotypes about heavier patients, 35 % indicated that practitioners feel uncomfortable caring for patients with obesity, and 29 % reported that their colleagues have negative attitudes toward these patients. Weight biases held by therapists could be especially damaging for patients with eating disorders and could interfere with treatment progress. Thus, addressing biases related to weight and eating disorders as part of clinician training and education may be warranted to improve quality of treatment provided to individuals affected by eating disorders.

Research further suggests that there is strong support for efforts to address weight-related bias in training and education among health-care providers. A recent study surveying a national sample of 944 US adults and 1420 members of professional organizations specializing in eating disorders found that 97.8 % of professionals from the eating disorders field agreed that health-care professionals should receive sensitivity training to prevent weight stigma in their clinical practice and improve patient-provider communication [111]. Among the general public, 67 % supported this initiative. These findings indicate considerable recognition of weight bias among clinicians and clear support for efforts to implement training to reduce stigma among health professionals. This evidence also echoes recent calls for efforts to address weight stigma in therapy and treatment [112, 113]. As no research has systematically tested stigma-reduction strategies among clinicians treating eating disorders, this is an important area for future work.

Conclusions and Future Directions

There is considerable research documenting weight stigma and its negative implications for health among individuals with obesity; however, the literature on stigma associated with eating disorders is still emerging. Many important questions remain to be examined to better understand the nature and extent of stigma associated with different eating disorders, and how these stigmatizing experiences relate to disordered eating and other health consequences. Table 1 summarizes research questions that need to be addressed to help advance these areas of study. As this research moves forward, evidence can inform what types of studies and interventions may be needed to help reduce stigma associated with eating disorders, especially in treatment settings with health-care professionals. In light of the prevalence of eating disorders and weight stigmatization, prioritizing the study of stigma in research efforts is important to help improve the quality of life of individuals who suffer from eating disorders.

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Compliance with Ethics Guidelines

Conflict of Interest Rebecca Puhl and Young Suh declare that they have no conflict of interest.

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