

Words will never hurt me? Preferred terms for describing obesity and binge eating

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SUMMARY

Objective: This study evaluated individuals' language preferences for discussing obesity and binge eating. **Method:** Participants ($N = 817$; 68.3% female) were an online community sample. They rated the desirability of terms related to obesity and binge eating, and also completed psychometrically established eating-disorder measures. In addition to examining participants' preferences, analyses explored whether preferences differed by socio-demographic variables, weight status and binge-eating status. **Results:** Preferred obesity-related terms were *weight* and *BMI*, although women rated undesirable obesity-related terms even lower than did men. Participants with obesity and binge eating rated *weight*, *BMI*, *unhealthy BMI* and *large size* as less desirable than participants with obesity but not binge eating. Binge-related terms were generally ranked neutrally; preferred descriptions were *kept eating even though not physically hungry* and *loss of control*. **Conclusions:** Preferred terms were generally consistent across sex, weight status and binge-eating status. Using terms ranked more preferably and avoiding terms ranked more undesirably may enhance clinical interactions, particularly when discussing obesity with women and individuals reporting binge eating, as these groups had stronger aversion to some non-preferred terms. Findings that the selected binge-related descriptions were rated neutrally on average provide support for their use by clinicians.

What's known

- Individuals prefer the terms 'weight' and 'BMI' when talking about obesity.
- Individuals dislike the terms 'fatness,' 'excess fat,' and 'obesity' when talking about obesity.
- Individuals who binge eat have greater body-image concerns than their weight-matched peers.

What's new

- Preferred descriptions for the lack of control in binge-eating episodes were 'like you kept eating even though you were not physically hungry,' 'like you had a loss of control,' and 'like you ate until you were uncomfortably full.'
- Preferred and non-preferred terms were generally consistent across socio-demographic characteristics, although women rated non-preferred obesity-related terms as even less desirable than men rated them.
- Individuals reporting binge eating rated 'weight' and 'BMI' less desirable than those not reporting binge eating.

Introduction

Overweight and obesity are highly prevalent, associated with increased morbidity and mortality, and the focus of many healthcare interactions and discussions with patients (1,2). Discussions of weight, however, can be sensitive for both providers and patients, particularly because obesity-related terms, such as *morbidly obese* and *fat*, can be perceived as negative and stigmatising, particularly by persons with overweight (3). Consideration of preferred terms for discussing obesity is especially important for healthcare providers because this can influence patient care and perceptions of healthcare provider weight bias (3). Perceptions of weight bias can decrease individuals' motivation to lose weight (3), increase short-term caloric consumption (4), and even impair weight-loss outcomes (5).

Some patients report poor satisfaction with communication from their healthcare providers about weight-loss counselling in general (6), and that they are likely to switch providers if they perceive weight-

stigmatising or discriminatory attitudes (3). Patient dissatisfaction might be explained, in part, by the language providers use in conversations about weight. A limited literature has described language preferences for obesity-related terms in treatment-seeking weight-loss patients (7,8), weight-loss surgery candidates (7), primary-care patients with obesity (9,10) and individuals from the community (3,11). Across these samples, individuals have consistently reported *fatness*, *excess fat* and *obesity* (and the adjective correlates *fat* and *obese*) as the most undesirable terms (3,7–11), and *weight* as the most desirable term (3,7–9,11). Empirical findings convincingly contradict perspectives advocating the use of pejorative terms such as *fat* as an attempt to shame patients into taking weight loss seriously (3). Collectively, these findings suggest that providers can improve patients' quality of care by attending to the obesity-related terms they use.

A neglected, related area of research concerns what language individuals prefer when discussing eating behaviours. This is especially relevant for persons

with obesity who also experience binge eating. Binge-eating disorder (BED) has strong associations with obesity (12) and heightened biopsychosocial morbidity (12,13) relative to persons with obesity who do not binge eat. BED is characterised by recurrent 'binge eating' (defined as consuming objectively large amounts of food in discrete amounts of time while experiencing a subjective lack of control) in the absence of weight-compensatory behaviours (14). The key characteristic distinguishing BED from overeating is perceived loss of control while eating (14), which makes this clinical phenomenon an important area of patient-provider communication during diagnostic assessment and treatment.

Individuals who experience binge eating are a uniquely vulnerable subgroup of persons with obesity, which highlights the need for research on language preferences for discussing *both* obesity and binge eating to inform effective clinical interactions. Clinical (13) and community (15) studies have consistently reported that persons who binge eat have substantially greater body-image concerns than weight-matched peers, and that persons with BED place significantly greater importance on weight and shape than persons with obesity but not BED. The BED diagnosis requires that patients experience distress about binge eating (14,16), and binge eating is often a solitary behaviour associated with much embarrassment and strong feelings of disgust and shame (17). These essential characteristics of binge eating highlight its sensitive nature, and the need for research on how aspects of binge eating, most notably the loss of control during overeating episodes, can be discussed in a supportive and non-judgmental manner. As the value patients with obesity and BED place on weight and shape when evaluating their self-worth (13), susceptibility to weight discrimination (18) and internalisation of weight stigma (19), it seems important to understand preferences for obesity-related and binge-related terms among individuals who binge eat, as well as whether preferences differ from individuals who do not binge eat.

This study aimed to describe and compare individuals' obesity-related and binge-related language preferences. We predicted that, consistent with earlier work in primarily treatment-seeking clinical samples (7–9), individuals in our Internet sample would prefer the terms *weight* and *BMI* and would find *fatness* and *large size* undesirable. We further hypothesised that dislike of undesirable terms would be stronger for participants with overweight/obesity compared with participants in a healthy-weight range, and would be stronger for participants reporting regular binge eating than those not reporting binge eating.

This study also sought to provide information on preferences for binge-related terms. Finally, this study aimed to compare whether preferred language differed by sex, weight status and binge-eating status, as earlier work has found inconsistent differences by sex (3,7,9) and weight status (3,7), and has not evaluated differences by binge-eating status.

Methods

Participants

Participants ($N = 817$) were recruited through the Mechanical Turk website. This site provides convenient, diverse, high-quality data (20) and appears to provide data that have similar or better psychometric characteristics as data from college-student samples (21). MTurk has been used in psychological research (22) including research focusing on psychiatric disorders (23,24).

Participants were 21–65 years old and lived in the United States. Participants were women ($n = 557$, 68.3%) and men ($n = 258$, 31.6%) who self-identified as White ($n = 637$, 78.1%), Black ($n = 62$, 7.6%), Hispanic ($n = 50$, 6.1%), Asian ($n = 37$, 4.5%), Multiracial ($n = 18$, 2.2%), or Other ($n = 12$, 1.4%). Participant education was high school or less ($n = 121$, 14.8%), some college ($n = 272$, 33.3%) or college degree or higher ($n = 423$, 51.8%). On average, participants were 35.72 years old ($SD = 11.75$) and had body mass indexes of 28.12 kg/m^2 ($SD = 7.44$). This study received approval from the institution's research ethics review board.

Measures

Body mass index (BMI)

Participants reported weight and height. Weight status was classified by BMI: healthy-weight $< 25 \text{ kg/m}^2$; overweight/obesity $\geq 25 \text{ kg/m}^2$.

Binge eating status

Items assessing binge-eating episode frequency from the Questionnaire on Eating and Weight Patterns (QEWP) (25) and the Eating Disorder Examination Questionnaire (EDE-Q) (26) classified participants' binge-eating status. Weekly (or more frequent) binge eating within the past month (EDE-Q) and three months (QEWP) were included in the 'binge eating' group (corresponding to the *DSM-5* frequency and duration requirements for BED). These measures have well-established psychometric properties (26–29), have been used together to classify participants with possible BED in community studies (16), and perform well as screening measures in community samples (30).

Weight Preference Questionnaire (7)

Participants were encouraged to imagine that they were meeting with a doctor who would tell them they were more than 50 pounds overweight, and were asked their preferences for the terminology the doctor would use to describe their weight. They rated the desirability of 11 obesity-related terms on a five-point scale (initially scored 1 through 5, recoded to facilitate interpretation): -2 (very undesirable), -1 (undesirable), 0 (neutral), +1 (desirable), +2 (very desirable). Terms were the same as those in earlier studies (7–9): *weight*, *heaviness*, *BMI*, *obesity*, *excess weight*, *fatness*, *excess fat*, *large size*, *unhealthy body weight*, *weight problem* and *unhealthy BMI*.

Preferred terms for loss of control while eating questionnaire (C. A. Roberto et al., unpublished work)

Participants were encouraged to imagine that they were meeting with a doctor who had diagnosed them with BED and would be discussing their eating behaviour, and were asked their preferences for the language the doctor would use to describe feeling of loss of control while eating. They rated the desirability of 14 binge-related terms on the same scale from -2 (very undesirable) to +2 (very desirable). Descriptions included: *a loss of control*, *out of control*, *addicted to the food you were eating*, *helpless to control your eating*, *like you had to keep eating even though you wanted to stop*, *like you were giving into an urge to eat*, *you ate until you were uncomfortably full*, *like you kept eating even though you were not physically hungry*, *driven or compelled to keep eating even though you wanted to stop*, *like you couldn't stop eating once you started*, *like you were on automatic pilot or detached from what you were doing*, *that you knew you were going to eat a large amount of food so you didn't even consider stopping*, *like you lost your willpower*, and *like you were not in control of your eating*. These terms parallel those used on the EDE-Q (26), the QEWP (25) and the essential and associated features of BED as described in the DSM-5 (14).

Statistical analyses

Paired *t*-tests (with Bonferroni correction adjusting the significance to $p < 0.0009$) evaluated whether each term differed from each other term. Parallel analyses (with Bonferroni correction to $p < 0.0005$) evaluated binge-related terms. All participants were included in analyses of obesity-related terms. Participants endorsing binge eating (at any frequency in the past 3 months) ranked binge-related descriptions, but because of the complexity of binge-eating

behaviours, we did not have participants who denied binge-eating episodes answer questions about the subjective feeling of loss of control during binge-eating episodes. Binge-eating status was created using the binge-eating frequency variables from the EDE-Q (weekly within past month) and QEWP (weekly on average within past 3 months).

MANOVAs and *t*-tests evaluated whether ratings differed by weight status (healthy-weight BMI range, overweight/obese BMI range), sex, race/ethnicity (Black, White, Hispanic) and education level. These hypotheses-driven comparisons used the conventional significance level of $p < 0.05$.

Results

Preferences for obesity-related terms

Figure 1 depicts the mean desirability ratings of each obesity-related term and notes significant pairwise comparisons. *Weight* was the most desirable term, followed by *BMI*. *Unhealthy body weight* and *unhealthy BMI* had neutral scores, significantly less desirable than *weight* and *BMI*, and significantly more desirable on average than remaining terms, although these two terms did not differ from each other.

Fatness was the most undesirable term, followed by *excess fat*, both of which were significantly different from each other and from all terms rated more positively. *Large size*, *heaviness* and *obesity* were all significantly less desirable than more positively rated terms, although these three terms were non-significantly different from each other. *Weight problem* and *excess weight* were rated as undesirable on average, although these terms did not differ from each other.

Preferences for binge-related descriptions

Figure 2 depicts mean desirability ratings of each binge-related description with all significant pairwise comparisons flagged. Unlike ratings of obesity-related terms, most binge-related terms had positive average ratings. *Kept eating/not physically hungry* was the most desirable term, followed by *loss of control*, *uncomfortably full*, and *driven or compelled/wanted to stop*, *helpless to control*, *couldn't stop once started*, *had to keep eating/wanted to stop* and *not in control*. These terms did not differ from one another, but were significantly more desirable than other terms. *Knew large amount/didn't consider stopping* was the most undesirable term, followed by *out of control* and *lost willpower*. These terms were significantly less desirable than other terms, but did not differ from each other.

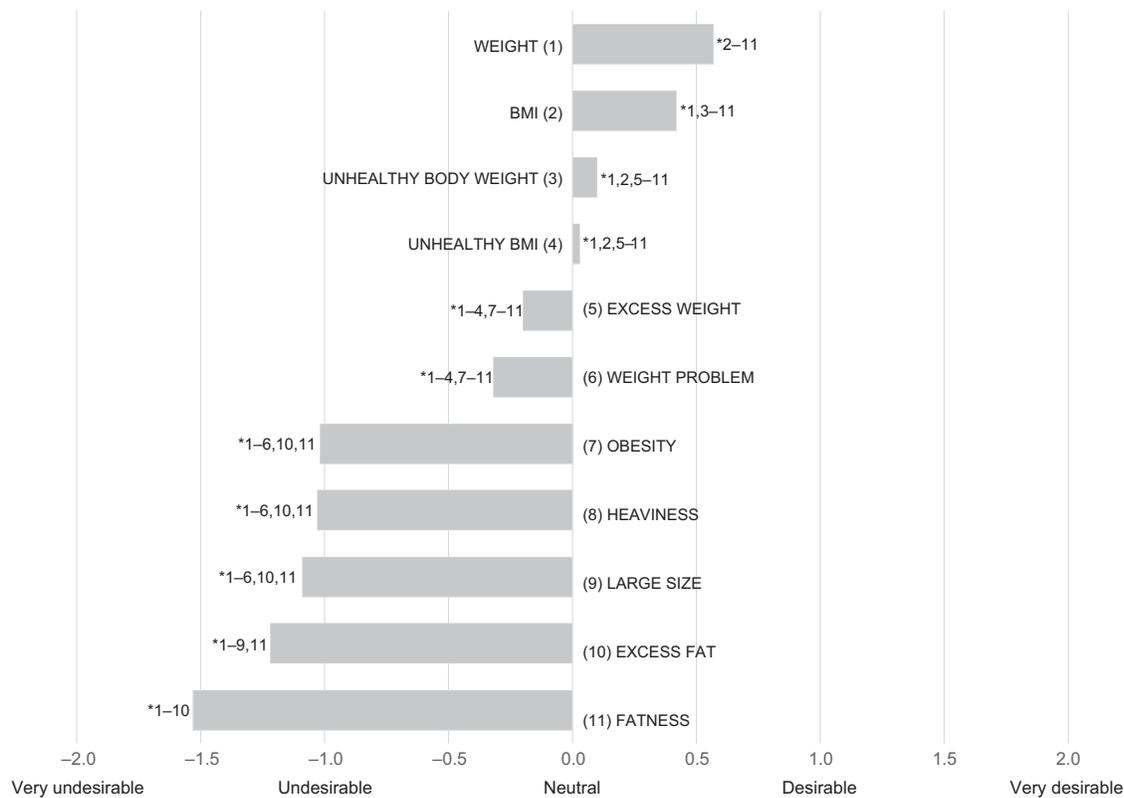


Figure 1 Mean ratings of obesity-related terms. $N = 816$. Each term is numbered in parentheses from most to least desirable. * $p < 0.0009$: significant pairwise comparison after Bonferroni correction for multiple comparisons. Each number following the significance marker (*) indicates the other term in the significant pair

Differing preferences by BMI and binge-eating status

MANOVA and paired comparisons evaluated mean differences between participants who reported BMIs in the healthy-weight range ($n = 334$) with those in the overweight/obesity range ($n = 479$). Weight status was non-significant in the omnibus MANOVA, Wilks' $\lambda = 0.98$, $F(11,801) = 1.52$, $p = 0.119$, $\eta_p^2 = 0.020$. Differences emerged for only two obesity-related terms: *BMI* and *unhealthy BMI* were less desirable to participants with overweight/obesity (*BMI*: $M = 0.34$, $SD = 1.16$; *unhealthy BMI*: $M = -0.05$, $SD = 1.28$) than participants in the healthy-weight range (*BMI*: $M = 0.54$, $SD = 1.10$; *unhealthy BMI*: $M = 0.15$, $SD = 1.28$), $t(811) = 2.36$, $p = 0.018$ and $t(811) = 2.11$, $p = 0.035$.

Several differences emerged in comparisons of participants with overweight/obesity and binge-eating ($n = 36$)¹ and participants with overweight/obesity

¹Of the participants who endorsed any binge eating ($n = 144$), 43 endorsed weekly binge eating in the past month and past 3 months. Of these participants endorsing weekly binge eating, six were not included in these analyses because they had a BMI < 25 kg/m², and one was not included because height was missing. Thus, 36 participants were classified in the binge-eating and overweight/obesity group.

but no binge-eating ($n = 401$) although the omnibus MANOVA was non-significant, Wilks' $\lambda = 0.96$, $F(11,425) = 1.52$, $p = 0.121$, $\eta_p^2 = 0.038$ (see Figure 3). Specifically, participants with binge eating and obesity found *weight*, *BMI*, *large size* and *unhealthy BMI* less desirable than participants with obesity but not binge eating.

Differing preferences by socio-demographic characteristics

MANOVA evaluated differences by sex (male, female); results are depicted in Figure 4. Sex had a significant effect on obesity-related term preference, Wilks' $\lambda = 0.90$, $F(11,803) = 8.15$, $p < 0.001$, $\eta_p^2 = 0.100$. Women found most terms more undesirable than men: 'heaviness, obesity, fatness, excess fat, large size, and weight problem'.

The omnibus MANOVA evaluating differences by race/ethnicity (Black, Hispanic, non-Hispanic White) was non-significant, Wilks' $\lambda = 1.23$, $F(22,1472) = 0.96$, $p = 0.208$, $\eta_p^2 = 0.018$. Univariate ANOVAs revealed significant differences in *fatness*, $F(2,746) = 5.71$, $p = 0.003$, $\eta_p^2 = 0.015$, and *excess fat*, $F(2,746) = 3.58$, $p = 0.028$, $\eta_p^2 = 0.010$. *Fatness* was significantly more undesirable to White ($M = -1.61$, $SD = 0.77$)

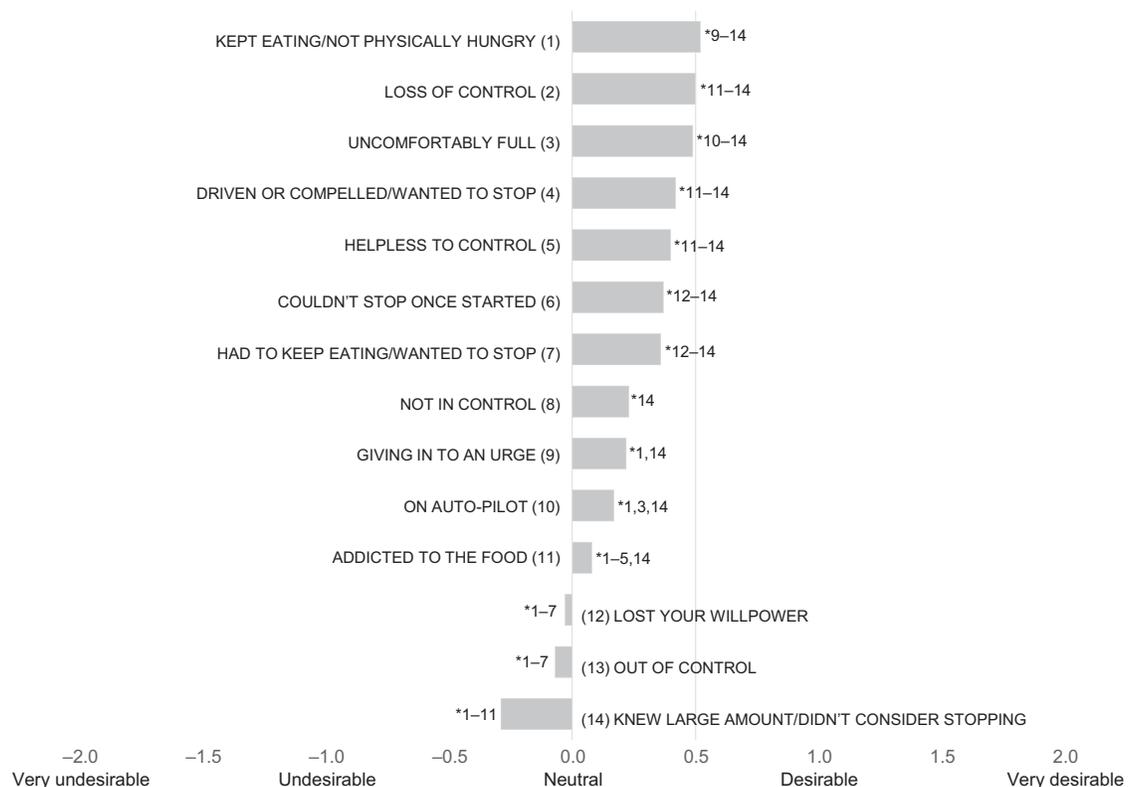


Figure 2 Mean ratings of binge-related terms. $N = 173$. Each term is numbered in parentheses from most to least desirable. * $p < 0.0005$: significant pairwise comparison after Bonferroni correction for multiple comparisons. Each number following the significance marker (*) indicates the other term in the significant pair

than Black ($M = -1.21$, $SD = 1.12$) participants, $t(40.58) = -2.15$, $p = 0.038$. *Excess fat* was also significantly more undesirable to White ($M = -1.34$, $SD = 0.94$) than Black ($M = -0.89$, $SD = 1.31$) participants, $t(40.85) = -2.06$, $p = 0.046$.

MANOVA evaluating differences by education level (high school or less than high school, some college, college or more than college) was non-significant, Wilks' $\lambda = 0.98$, $F(22,1606) = 0.81$, $p = 0.712$, $\eta_p^2 = 0.011$. Only *weight problem* had a significant univariate ANOVA, $F(2,813) = 5.02$, $p = 0.037$, $\eta_p^2 = 0.008$: participants with a college or higher education ($M = -0.43$, $SD = 1.22$) disliked the term more than participants with some college education ($M = -0.21$, $SD = 1.19$), $t(693) = 2.34$, $p = 0.019$.

There were no sex differences in men's ($n = 49$) and women's ($n = 124$) preferences for binge-related terms, as depicted in Figure 5. Differences in preferences for binge-related terms by education and race were not evaluated due to insufficient frequencies.

Discussion

Our findings replicate and extend earlier work describing preferences for obesity-related terms. Results from our large online community sample

confirm the preference of *weight* during discussions with healthcare providers about obesity, and the undesirability of *fatness*, *excess fat* and *obesity*. Some noteworthy differences emerged, however, based on weight-status (*BMI* and *unhealthy BMI* less desirable to participants with overweight/obesity than in a healthy-weight range), sex (lower preference of undesirable terms for women than men) and race (*fatness* and *excess fat* more undesirable to White than Black participants). These findings underscore the importance of providers' responsiveness to patients' preferences even within the set of preferred terms. As with earlier work, the undesirable ratings of several obesity-related terms, including *obesity*, suggests that these terms are not seen by patients as benign medical labels, but may be viewed as stigmatising (3,11). Indeed, the highest rated terms, *weight* and *BMI*, have an intrinsic non-judgment because they can refer to any weight within the full spectrum of body weights instead of singling out excess weight. Alternatively, these terms may have been selected because they deliver a less blunt message about excess weight, and some individuals may prefer to avoid conversations about weight as much as possible.

Our study also adds novel information about language preferences for descriptions of loss of control

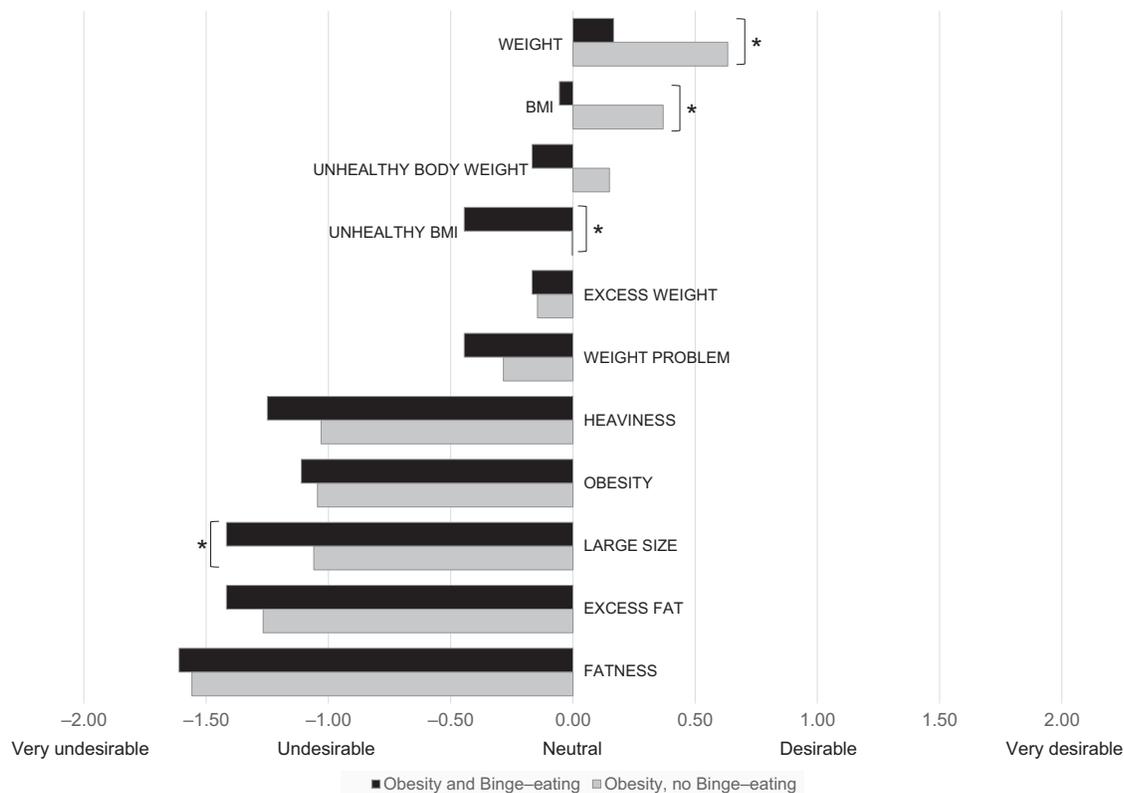


Figure 3 Differences in ratings of obesity-related terms among persons with overweight who do or do not report binge eating. $N = 437$; $n = 36$ persons with obesity and binge eating, $n = 401$ persons with obesity but not binge eating.

* $p < 0.05$

in binge-eating episodes. Most binge-related terms were rated neutrally on average, which is in contrast to most obesity-related terms rated negatively on average. This suggests that, among individuals with binge eating, communication about binge eating is seen more positively than communication about weight, perhaps because this communication is, in itself, acknowledgement of behaviours patients find distressing. None of the obesity- and binge-related language, however, reached an average rating of “desirable.” This could indicate the sensitivity of discussions about weight and binge eating; that is, conversations about weight and binge eating might create such distress that individuals would prefer not to discuss the topics at all. Alternatively, ratings might have been neutral at most because other terms not included on our lists would be more desirable, or contextual factors (such as the overall message about weight or eating being conveyed) might be more related to desirability than the terms themselves. Additional research on patients’ experiences with providers and reasons behind preferences could help discern more desirable terms.

One of the important additions of the current work to the language preference literature is the description of term preferences among patients with

binge eating as well as obesity, because these patients might be vulnerable to negative affect or perceiving weight stigmatisation from healthcare providers. Participants with obesity and binge eating rated *weight*, *BMI*, *unhealthy BMI* and *large size* as more undesirable than participants with obesity but not binge eating, suggesting additional sensitivity to those terms. Alternatively, participants with binge eating and obesity might prefer their healthcare provider discuss eating behaviour rather than weight, and thus, might view obesity-related terms negatively because they see this as missing their presenting concern.

Sex differences in preferred terminology have been minimal in earlier work (3,7,9). Our findings suggest that women find undesirable obesity-related terms even less desirable than men, but do not differ from men in the desirability of more neutrally rated terms. Although these significant differences were not found in earlier clinical samples (7,9), they were consistent with another large community sample (3). Our study and the earlier community sample (3) found that women’s average rankings were generally in the same order of preference as men’s rankings despite stronger aversions. Women’s stronger aversions might be related to more frequent experiences of weight

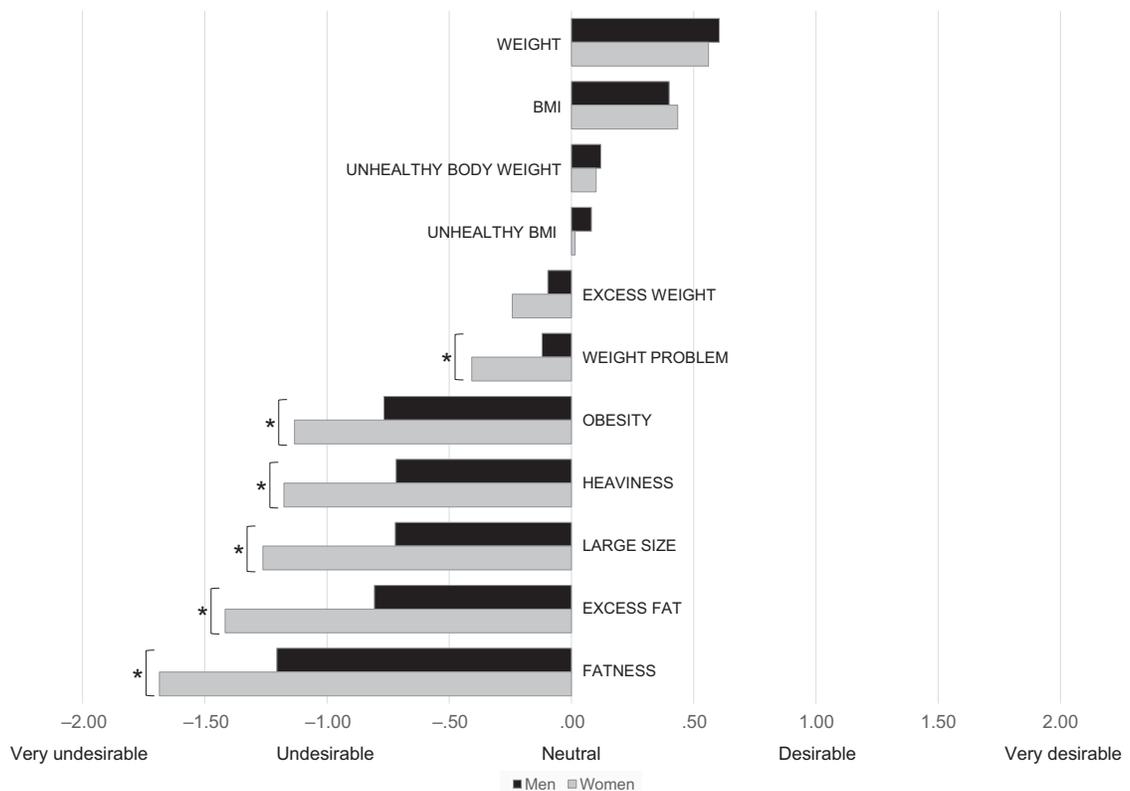


Figure 4 Sex differences in ratings of obesity-related terms. $N = 815$; $n = 258$ men, $n = 557$ women. * $p < 0.05$

stigmatisation than men (31), or to greater sensitivity to potentially pejorative terms. Healthcare providers are encouraged to practice sensitivity and display empathy during discussions of weight and weight-loss counselling with female patients in particular, although they can use the same preferred language of *weight* and *BMI*.

This study has several strengths as well as limitations to consider. Our study replicated earlier work with treatment-seeking clinical samples (7–9) by extension to a large online community sample. Current empirical findings add both confidence about the language recommendations and greater generalisability, which can benefit generalist healthcare providers' work with patients as well as public-health efforts. We were also able to evaluate socio-demographic differences in obesity-related term preferences, including sex. Limitations of this study include the frame for language preference ratings, which encouraged participants to imagine their healthcare provider to be using each term. It is possible that the person using each term could influence its perceived desirability, by profession (primary care physician vs. registered dietitian), familiarity (specific healthcare provider) or social relationship (family member vs. teacher). Another limitation is that although we listed common descriptions of obesity

and loss of control over eating, some obesity- or binge-related language that could have been desirable or undesirable might have been missing, or preferences may have been influenced by participants' familiarity with terms. In addition, our data (including BMI and binge eating) were reported rather than objectively measured. Notably, self-reported and measured weight and height are very highly correlated (32), and discrepancies in clinical samples appear unrelated to eating-disorder and depressive psychopathology, although individuals with higher BMIs underreport BMI to a greater extent than those with lower BMIs (33). Classification of binge-eating status also used self-reported data, rather than diagnostic interview, although self-report can facilitate disclosure of attitudes and behaviours associated with embarrassment, such as binge-eating behaviours. Moreover, data were obtained from participants recruited through the Mechanical Turk site, which appears to provide high-quality data from diverse, internally motivated participants (20), and has been used in psychological research (22) including research on psychiatric disorders (23,24), although these characteristics of individuals on the Mechanical Turk site may also limit generalisability. Our initial findings that participants with binge eating have different preferences from other participants suggest a

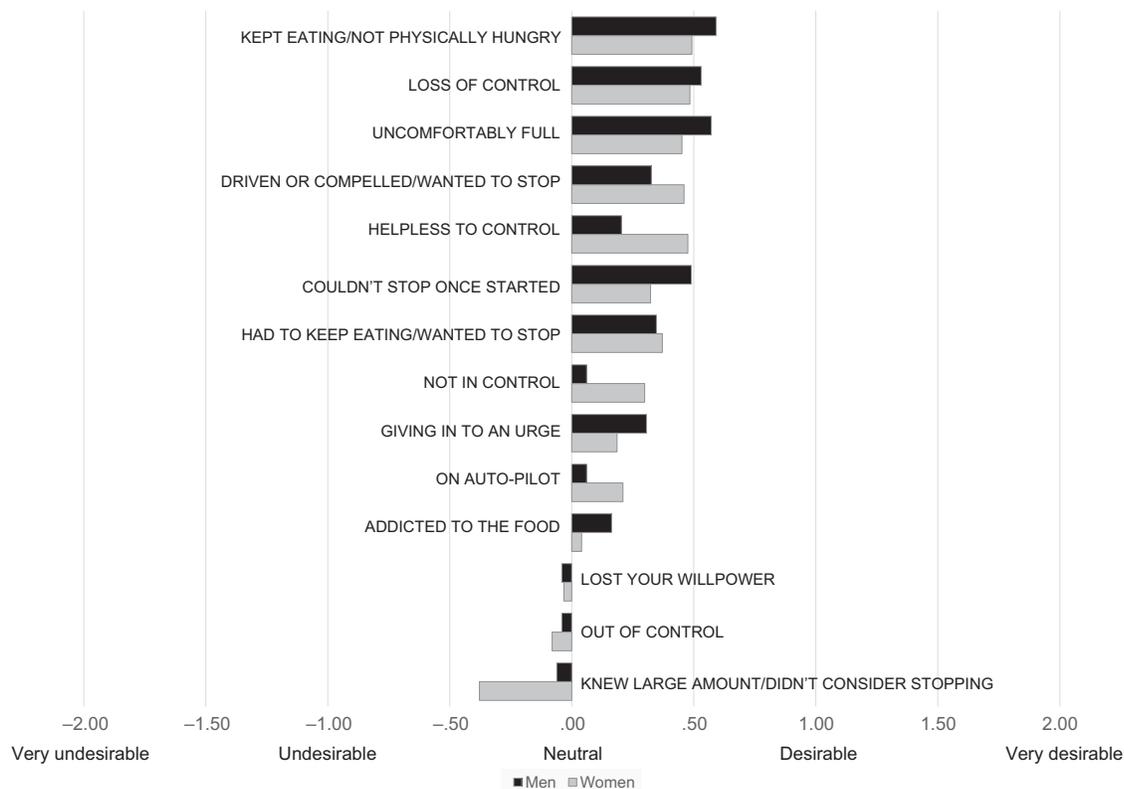


Figure 5 Sex differences in ratings of binge-related terms. $N = 173$; $n = 49$ men, $n = 124$ women. No differences were significant at $p < 0.05$

need for further research with treatment-seeking patients with BED, who may vary in their language preferences, particularly as the severity of their distress related to binge eating and body-image concerns increases. Finally, future research about mechanisms driving terms' desirability, including perceptions of weight stigma or trivialisation of conditions, would help to clarify patient-provider communication.

Findings have implications for potentially improving the quality of healthcare interactions and public-health messaging. Healthcare providers are encouraged to use more preferred terms when discussing obesity (*weight*) and binge eating (*kept eating/not physically hungry* and *loss of control*). Although language preferences generally retained the same order across socio-demographic variables, the differences suggest that healthcare providers could also improve care by attending to individual patients' preferences when discussing sensitive topics including weight and binge eating. Likewise, the loss of control in binge-eating episodes can be a complex behaviour to understand and communicate, and the variety of terms ranked more positively or neutrally might help providers and patients draw upon a flexible vocabulary to identify problem behaviours and possible treatment

options without stigmatising patients or decreasing motivation to make positive health-behaviour changes. Primary care providers in particular, and medical professionals more generally, report an overall lack of self-efficacy addressing weight (34,35). Findings about preferred obesity- and binge-related terms may help providers have more confidence discussing obesity with patients, and offering weight-loss counselling or discussing appropriate referrals to specialists.

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Author contributions

JL collected, analysed, and interpreted data, and drafted and critically revised the manuscript. KG analysed and interpreted data and critically revised the manuscript. VI, MW, RB, CR, and CG all developed clinical items and critically revised the manuscript. CG also mentored and supervised the research process.

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