

What words should we use to talk about weight? A systematic review of quantitative and qualitative studies examining preferences for weight-related terminology

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Summary

Evidence of weight stigma and its harmful consequences have led to increased attention to the words that are used to talk about obesity and body weight, including calls for efforts to carefully consider weight-related terminology and promote respectful language in the obesity and medical fields. Despite increased research studies examining people's preferences for specific words that describe body weight, there has been no systematic review to synthesize existing evidence on perceptions of and preferences for weight-related terminology. To address this gap, the current systematic review identified 33 studies (23 quantitative, 10 qualitative) that examined people's preferences for weight-related terminology in the current research literature (from 1999 to 2019). Across studies, findings generally suggest that neutral terminology (eg, "weight" or "unhealthy weight") is preferred and that words like "obese" and "fat" are least acceptable, particularly in provider-patient conversations about weight. However, individual variation in language preferences is evident across demographic characteristics like race/ethnicity, gender, and weight status. Of priority is future research that can improve upon the limited diversity of the existing literature, both with respect to sample diversity and the use of culturally relevant weight-related terminology, which is currently lacking in measurement. Implications for patient-provider communication and public health communication are discussed.

KEYWORDS

language, obesity, terminology, weight stigma

1 | INTRODUCTION

Discourse about obesity and weight control remains prominent in public health initiatives, medical care and health-related media campaigns. As body weight is entangled with societal and cultural meanings that infer evaluative dimensions of one's identity,^{1,2} it can be a complex and emotionally charged topic to communicate about. The words used to refer to people's body weight can affect their self-perceptions, attitudes and behaviours. Experimental research shows that even a brief exposure to body-related words can induce automatic evaluations and judgements of body shape and weight, and trigger

negative affective responses.³ These negative, and often implicit, associations^{4,5} are a symptom of broader societal weight stigma, so pervasive that recent evidence points to the globalization and presence of weight stigma in both developed and developing countries around the world.⁶

Because obesity is such a highly stigmatized condition, people with higher weight are vulnerable to weight-based prejudice, victimization and discrimination.^{7,8} These experiences contribute to harmful health consequences for targets of weight stigma and can impair both psychological wellbeing and physical health.⁹⁻¹¹ Studies further indicate that healthcare providers' use of stigmatizing communication

about body weight can exacerbate this problem in the medical setting and undermine delivery of health care for patients with high body weight.¹²⁻¹⁵ Collectively, this evidence has led to increased attention to the words that are used to talk about obesity and body weight, including calls for efforts to carefully consider weight-related terminology to ensure that communication is respectful and free of stigma.¹⁶⁻¹⁸ As a result, major medical organizations, like the American Academy of Pediatrics¹⁹ and American Medical Association,²⁰ have issued policy statements recommending that healthcare providers give careful consideration to communication about weight and use sensitive, non-stigmatizing language. In addition, several national and international meetings have convened diverse groups of researchers, advocates and health professionals to discuss communication about body weight and/or obesity, including terminology used to talk about weight.^{17,21}

However, the best ways to communicate about body weight and/or obesity are neither clear nor straightforward. Many words and phrases have populated the current discourse, ranging from body mass index (BMI) labels to colloquial terms like “heavy” or “large.” For example, the word “obese” reflects medical terminology widely adopted and used by researchers and healthcare professionals in medical and obesity fields, yet evidence indicates resistance to this term,^{22,23} which is viewed as problematic and pejorative among individuals in both community and treatment-seeking samples.^{24,25} This term is also opposed by size acceptance groups who seek to demedicalize bodies, and prefer the word “fat.”²⁶ Debate and disagreement about the appropriateness versus stigmatizing nature of words like “obese” or “fat” have extended beyond research and advocacy groups into the mass media, at times even generating international press attention.²⁷⁻²⁹

Concurrently, with the American Medical Association's classification of obesity as a disease in 2013,³⁰ there has been an increasing movement in recent years towards the use of people-first language for obesity. People-first language is an approach that has been adopted for a range of health-related and psychological conditions³¹⁻³³ in efforts to avoid labelling or defining people by their medical condition, and is viewed to be an important part of efforts to treat people with respect and to help reduce stigma. People-first language in the context of obesity has been adopted by national professional obesity organizations such as The Obesity Society, and people-first language has become the standard and requirement for academic publications in scholarly journals the obesity field³⁴ and in obesity conference programmatic communications.³⁵ While this has been viewed as a positive step in efforts to help reduce weight stigma within the medical and research communities, some have questioned its usefulness and impact.^{17,36}

Thus, while there is consensus that the language we use to talk about weight is important, it is not clear which terminology is most likely to be accepted, to reduce stigma, or to motivate health behaviours, and whether preferences for terminology vary in different contexts, such as social, familial or medical settings. Researchers have examined preferences for different types of weight-related terminology, primarily in the context of people's preferences for

words used to describe their weight in conversations with a healthcare provider. Findings from these studies generally indicate a preference for neutral terminology, such as “weight,” rather than words like “fat” or “obese.”^{25,37,38} While this literature is scattered, the existing evidence can offer important insights about perceptions of weight-related terminology among community samples, individuals seeking weight loss treatment, parents, youth, and even healthcare providers.

Despite increased research attention to the language that is used to talk about weight and obesity, there has been no systematic review to synthesize existing evidence on perceptions and preferences for weight-related terminology. To address this gap, this paper provides a critical and systematic review of existing literature examining weight-related terminology and language preferences, identifying important limitations of prior research and highlighting specific research priorities to inform future work on this important topic.

2 | METHODS

A systematic search of relevant articles for this literature review was conducted via PubMed, PsycINFO and Scopus databases in early October 2019, in consultation with a science literature librarian at the author's institution. Data extraction and synthesis were conducted in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for systematic reviews.³⁹ In addition, to identify articles that may have been missed in the database search, manual searches were conducted by reviewing the reference lists of relevant articles retrieved from the database search and by searching reference lists in systematic reviews on related topics.

2.1 | Eligibility criteria

Studies that assessed terminology for body weight and/or people's preferences for weight-related language were included in the analysis. Studies were eligible if they met the following inclusion criteria: (a) published in a peer-reviewed journal, (b) published in the last 20 years (1999-2019) and (c) written in English. No exclusions were made based on age of participants in studies. Abstracts from conference proceedings, dissertations and chapters were excluded, as were commentaries, opinion pieces and editorials.

2.2 | Search strategy

Database searches were conducted to include articles with pre-identified search terms in the title, abstract, keywords or subject headings. Search terms included keywords, free-text search terms and controlled vocabulary terms (eg, Medical Subject Headings and MeSH terms). The weight-related search strings included weight OR

overweight OR obesity OR obese OR fat OR "body mass index" OR BMI OR "body size." The language-related search terms included language OR word OR name OR terminology OR talk OR label OR communication OR preference OR "people-first" OR "person first."

Four thousand and thirty-five articles were identified across PubMed, PsycInfo and Scopus databases, with an additional 11 articles identified from the reference lists of other included articles or reviews on related topics. Once duplicates were removed ($n = 142$), 3,904 records were screened according to the eligibility criteria, resulting in the exclusion of 3,619 records determined to be ineligible for full-text review. These exclusions pertained to articles that had no content on body weight ($n=157$), no focus on language or communication ($n=1,281$) or included topics on either weight or communication that were unrelated to the focus of this review ($n=2,181$), such as studies examining adipose tissue, non-English language versions of dietary questionnaires, clinical weight loss trials and dietary interventions. The full-text articles of the remaining 285 records were evaluated according to the search criteria. In two cases where full-text articles were not available, these articles were retrieved via the author's

institutional interlibrary loan services. As depicted in Figure 1, 252 articles were excluded during this full-text assessment phase because they did not specifically assess or examine weight-related terminology or language preferences. Most studies excluded in this phase examined other aspects of weight-related communication (but not terminology), such as the following: (a) "fat talk" (body self-disparagement by claiming oneself to be "so fat" in front of others, regardless of objective truth); (b) societal-level communication about obesity such as message framing or obesity narratives in the news media; (c) interpersonal or family communication about weight (eg, frequency of weight-related communication by parents to their children), (d) communication about weight in health care and/or provider-patient interactions (eg, the use of motivational interviewing approaches to address weight-related health, predictors/frequency of weight counselling by providers or patient perceptions of provider counselling) or (e) articles that mentioned, but did not examine, weight-related terminology or language preferences. The final sample consisted of 33 articles (23 quantitative studies and 10 qualitative or mixed methods studies).

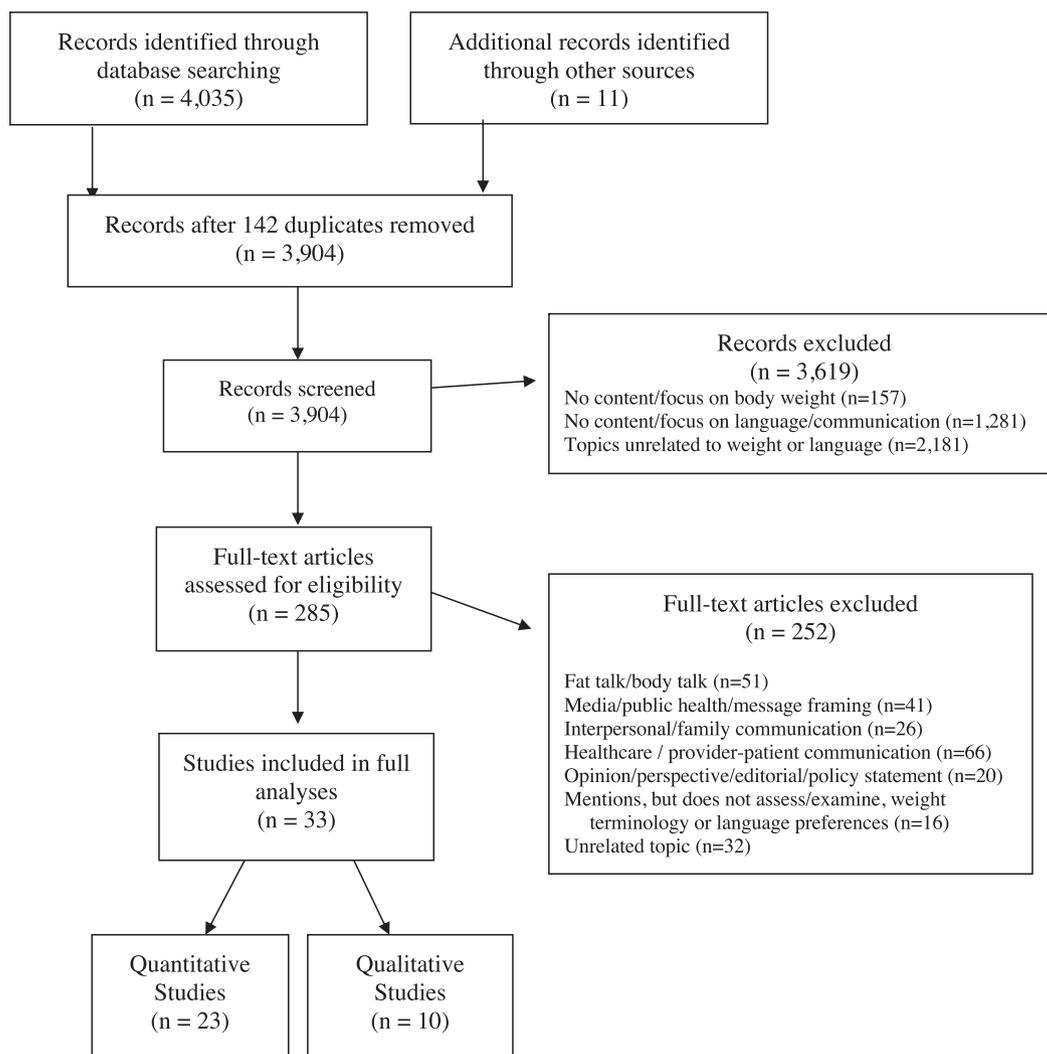


FIGURE 1 Flow diagram for study selection

2.3 | Data extraction and synthesis

The following data were extracted across all studies: country of origin, study design (eg, cross-sectional survey versus experimental study), sample size and type of sample (eg, community sample versus patients seeking weight loss) including demographic characteristics (participants' gender, race/ethnicity, mean age and mean BMI). In addition, data extraction included all weight-related words and/or phrases that were compared or assessed in the study (or identified the study aim in cases where word preferences were not compared), as well as specific measures used to assess weight-related terminology and/or preferences, and primary study outcomes, including the most and least preferred weight-related words and/or phrases, in addition to other notable findings.

2.4 | Quality assessment

Sources of bias were determined a priori using criteria identified in previously established quality assessment tools.^{40,41} Because of the absence of longitudinal studies and the small number of experimental studies in the existing literature, assessment criteria were adjusted to be applicable to the published quantitative (predominantly cross-sectional) and qualitative literature. Specifically, quality assessment of studies in this review included the following: sample diversity with respect to race/ethnicity, gender and body weight; study design (cross-sectional versus experimental); clearly articulated research objective(s); self-report versus objective measurement; and validity of measurement of preferences for weight-related terminology.

3 | RESULTS

3.1 | Study quality and characteristics

Information on study design, sample characteristics, measurement and primary outcomes for quantitative studies are presented in Table 1, and qualitative studies are presented in Table 2. In total, 16 studies (48%) included in the review were published between 2003 and 2013, and 17 studies (52%) were published between 2014 and 2019. Of the 23 quantitative studies reviewed, 17 used cross-sectional surveys,^{15,24,25,37,38,43,45,46,48-55,57} five used experimental designs^{42,44,47,56,59} and one study included both a cross-sectional survey study and an experimental study.⁵⁸ Of the six quantitative studies using experimental research designs,^{42,44,47,56,58,59} none tested the same research question(s) or compared identical weight-related terms, and each study used a different type of experimental manipulation (eg, clinical vignettes, fictional advertisements or assigning participants specific weight labels) and measurement approaches (eg, figure silhouette scales versus attitude thermometers versus semantic-differential rating scales). No studies included in the review used longitudinal designs. Target samples in quantitative studies included community samples (four studies)^{15,45,47,50} clinical samples of adults with Binge

Eating Disorder⁵⁵ or obesity seeking weight loss (four studies)^{25,37,38,51} or adult primary care patients (two studies),^{49,58} parents (three studies),^{24,43,48} adolescents (three studies),⁵²⁻⁵⁴ healthcare professionals (three studies),^{37,57,58} and undergraduate students (five studies, three of which were experimental studies).^{42,44,46,56,59} Of the 10 qualitative studies reviewed,⁶⁰⁻⁶⁹ samples included general population/community samples of adults with overweight or obesity (two studies),^{62,66} adult primary care patients with BMI>30 (one study),⁶⁹ parents (five studies),^{60,63,64,67,68} adolescents (one study),⁶⁵ low-income women (1 study)⁶¹ and healthcare professionals (1 study).⁶⁷

Twenty-nine of the 33 studies included in the review were comprised of samples with 50% or more females, and 16 studies (12 quantitative and 4 qualitative) had samples in which more than two thirds of participants ($\geq 70\%$) were females.^{25,37,38,42-45,48,51,55-57,61,64,66,68} In addition, 22 of the 33 studies reviewed (17 quantitative and 5 qualitative) reported samples comprised of several different racial/ethnic groups (in 6 studies, race/ethnicity was not reported). However, approximately 50% of these studies were comprised of samples with more than two-thirds ($>70\%$) White participants (13 of the quantitative studies and 4 of the qualitative studies).^{15,24,38,42,46,47,49,50,52-56,60,61,63,68} Only four studies (one quantitative and three qualitative) used samples comprised primarily or completely of racial/ethnic minorities: three studies with Hispanic/Latino participants^{48,64,67} and one study with African American participants.⁶⁹ Thus, most study samples were considerably limited in racial and ethnic diversity. In total, 75% of the studies reviewed (25 studies; 21 quantitative and 4 qualitative) reported BMI or weight status of participants.

Measurement of language preferences and assessment of weight-related terminology varied across studies. Among the quantitative studies, 16 studies compared language preferences for multiple weight-related terms, of which 5 studies used the Weight Preferences Questionnaire^{25,37,38,50,55} and 5 studies used modifications of this measure.^{15,24,48,51,52} The Weight Preferences Questionnaire presents a scenario to participants asking them to imagine that they are at least 50 pounds over their recommended weight and are visiting the doctor for a routine check-up. Respondents are then presented with 11 weight-related terms (see Table 1), and for each term, they are asked to rate (on a 5-point Likert scale) how desirable/undesirable the term is if a doctor was to use it to describe the participant's weight. Studies using modifications of this measure have included additional weight-related terminology and/or asked participants to rate the terms on additional dimensions, such as the extent to which each word is stigmatizing, blaming or motivating for weight loss. The Weight Preferences Questionnaire reflects the primary measure that has been used in this literature; no other measures assessing weight-related language preferences have been tested for validation. The remaining six studies assessing preferences for multiple weight-related terms used various Likert scale ratings (often developed by the study authors) to assess participants' comfort level with words and their emotional responses to words.^{44,45,53,54,57,58} In the three quantitative studies using samples of health professionals, participants

TABLE 1 Summary of published quantitative studies assessing weight-based terminology and language preferences

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (+SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Brochu and Esses (2011; Canada; Randomized experimental study) ⁴²	Study 1: N=477 psychology students; 72% women; 73.2% White, 13% Asian, 8.2% other, <1% Hispanic or Black; 18.8 years; BMI =22.02 (3.13). Study 2: N=78 psychology students; 69% women; 51.3% White, 30.7% Asian, 9% East Indian, 3.8% Black, 1.3% Hispanic; 18.9 years; BMI=21.84 (2.8).	Aim: Identify if "fat" and "overweight" labels induce different evaluative connotations and perceptions of people with high body weight. Aim: Determine whether biasing effect of "fat" label results from perceived larger body size compared with "overweight" targets, or induces negative stereotypes beyond description of body size.	Attitude thermometer (0=extremely unfavourable to 100=extremely favourable)	--	--	Less favourable attitudes towards "fat people" than "overweight people," regardless of participants' weight, gender, and race/ethnicity. "Fat" and "overweight" silhouettes were viewed as similar in body size. Participants evaluated characteristics describing a "fat" person more negatively than an "overweight" person.
	Study 3: N=60 psychology students; 58% women; 65% White, 15% Asian, 8.3% East Indian, 8.3% Other, <2% Hispanic or Black; 18.8 years; BMI=21.92 (2.96).	Aim: Test two different explanations for biasing effect of the "fat" label on perceptions of people with higher body weight.	(a) Female/male figure silhouette scales (b) Anti-fat Attitudes Questionnaire (c) Negative weight stereotypes			No effect of label on body-size perception; More negative attitudes towards "fat" versus "overweight" people; association between group label and negative attitude mediated by stereotype endorsement; Greater endorsement of negative weight stereotypes for "fat" vs "overweight" people.
Dutton et al (2010; USA; Cross-sectional study) ³⁷	N=143 weight loss seeking patients; 89.5% women; 64.5%	Terminology compared: "weight," "heaviness," "obesity," "BMI," "excess weight," "fatness,"	Weight Preferences Questionnaire; Assessed patients' preferences of weight terminology, if	"Weight" (but this term was not rated significantly different from the	"Fatness" (but this term was not rated significantly different from:	Preferences did not differ between participants with a BMI of 25-29.9

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TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (\pm SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Eneli et al (2007; USA; Cross-sectional study) ⁴³	N=292 parents of primary care paediatric patients; 90% women; 65.3% White, 16% Black, 8% Hispanic, 10.7% Other; Median age=32 years; mean BMI not reported (53% had BMI >25).	Terminology compared: "Fat," "obese," "too heavy," "overweight," "gaining too much weight" and "doesn't matter"	Parents were asked: "Which word do you think physicians should use to describe their concerns about a child's weight?"	following terms: "BMI," "unhealthy body weight," "unhealthy BMI," "weight problem" or "excess weight").	"excess fat," "large size," "obesity" or "heaviness").	versus >30. White participants rated the term "obesity" as more undesirable than Black participants. Physicians were most likely to use the term "weight" in discussions with patients; least likely to use "fatness," "excess fat," "heaviness," "large size."
Essayli et al (2017; USA; Randomized experimental study) ⁴⁴	N=113 college students; 100% women; 45% Asian, 23% Caucasian, 16.8% Mixed ethnicity, 10.6% Pacific Islander, 2.7% Latina, <2% Native American; 20.75-22.35 years; BMI range from 21.7 to 27.5.	Aim: Assess the impact of receiving a BMI label of "normal weight" or "overweight" on body image, internalized weight bias, affect, perceived health, and weight loss behaviours.	Participants randomized to receive either a "normal weight" or "overweight" label after being weighed, followed by completion of self-report surveys.	--	--	Participants in "overweight" label condition endorsed worse body image, internalized weight bias, negative affect, and perceived health compared with those in "normal weight" condition, particularly for those of higher body weight.
Glenister et al (2018; Australia;	N=768; community sample of adults; 85% women; Race not	Terminology compared: Weight, "your weight may be damaging your	Participants asked to provide their preferences for weight terminology	"Weight"; "your weight may be damaging your	Words or phrases including the word "fat" or "obese"	Women rated many terms as less acceptable than men"

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TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (±SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Greenleaf et al (2004); USA, Cross-sectional study ⁴⁵	reported; 40 years (men), 41 years (women); BMI=26.2 (5.1) for men, BMI=26.6 (7.1) for women.	health, "you are above your healthy weight range," "unhealthy body weight," BMI, "you are an unhealthy weight," "you are heavier than you should be," "you need to lose some weight," overweight, "you are overweight," unhealthy BMI, weight problem, excess fat, obesity or obese, large size, "you are suffering from obesity," "you are obese," fatness or fat, "you are too fat"	used by their general practitioner to describe their weight, using 5-point Likert scales (1=very uncomfortable to 5=I prefer this word or phrase)	health", "you are above your healthy weight range"	were rated as least acceptable	the phrase "You are above your healthy weight range" was preferred by participants across gender and body size. The phrase "you are suffering from obesity" and "your weight may be damaging your health" were preferred by significantly fewer participants with a BMI >25 than <25.
Hopkins and Bennett (2018); USA; Randomized experimental study ⁴⁷	N=131 college students; 61.8% women; 74% White, 12.9% Black; 7.6% Hispanic, 4.5% Asian; 22.16 years; BMI=25.25 (3.69) for men, BMI=22.86 (4.12) for women.	Aim: Identify perceptions of weight-based terms including "fat," "large," "obese," "overweight," "normal weight," "slim," "thin," "skinny"	Figure Rating Scale. Participants asked to identify figure silhouettes and personality traits associated with each weight term	--	--	"Obese" was selected for the largest figure silhouette. The words "overweight," "fat," and "large" were associated with similar figure sizes. Negative traits/connotations (eg, lazy, slow) were ascribed to "obese," "fat," "overweight."
Hopkins and Bennett (2018); USA; Randomized experimental study ⁴⁷	N=436; online sample of adults with BMI > 25; 47% women; 75.7% White, 10.8% Black, 13.5% Other; 34.9 years; BMI=33.9 (7.5).	Aim: To assess how the terms "weight," "obesity," "BMI," and "fat" affect illness perception of obesity, self-efficacy for health behaviour change, and weight loss treatment initiation.	Participants were randomly assigned to read vignettes of clinical/medical encounters that varied only in weight terms used, followed by self-report measures of primary variables	-	-	"Obesity" resulted in higher self-efficacy for behaviour change and perceived control over obesity; "fat" resulted in lowest understanding of obesity; the term "BMI" had no significant effects on self-efficacy or illness perception. WBI did

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TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (+SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Knierim et al (2018; USA; Cross-sectional study) ⁴⁸	N=525 Latino parents of children ages 2-19 years; Among English parents (n=255): 90.6% women, 32 years; 22.7% had BMI=25-29.9, 47.5% had BMI>30. Among Spanish parents (n=270): 87.8% women, 34.6 years; 28.5% had BMI=25-29.9, 40.4% had BMI>30. Mean BMIs were not reported.	English terms compared: "weight," "too much weight for his/her health," "too much weight for his/her age," "high BMI," "overweight," "obese," "fat," "chubby," "heavy," "weight problem," "unhealthy weight," "extremely obese." Spanish terms: peso (weight), "demasiado peso para su salud" (too much weight for his/her health), "demasaído peso para su edad" (too much weight for his/her age), "índice de masa corporal alta" (high BMI), "sobrepeso" (overweight), "obeso" (obese), "gordo" (fat), "gordito" (chubby), "engordando" (getting fatter), "muy gordito" (very chubby), "muy gordo" (very fat).	Modified version of Weight Preferences Scale. ³⁸ Survey presented a hypothetical clinical scenario; participants then rated weight terms according to how desirable, motivating, and offensive they would be if used by a doctor to describe their child's weight (using a 5-point Likert scale) ²⁴	Most desirable: "weight"/"peso." Most motivating: "unhealthy weight," "too much weight for his/her health," "demasiado peso para su salud" and "demasiado peso para su edad."	"Chubby," "fat," "gordo" and "muy gordo" were rated the least desirable, least motivating, and most offensive	Of all the English and Spanish terms, "too much weight for his/her health" varied the least across parent and child demographics. None of the BMI terms were rated as motivating or desirable.
Koball et al (2018; USA;	N=242 adult patients who recently saw	Aim: To assess patient perceptions of their	Self-report surveys using multiple-choice	-	-	58% would be "not at all offended" if they

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TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (±SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Cross-sectional study ⁴⁹	their primary care provider; 55.6% women; 98.7% White; 65.7 years; BMI=31.1 (9.5).	experiences of weight management discussions with providers.	questions with Likert scale response options asked patients for their recommendations for future weight conversations with their healthcare providers.			were diagnosed as "overweight" or "obese." 74% of patients wanted their provider to be "very
Lydecker et al (2016; USA; Cross-sectional study) ⁵⁰	N=817 adults in online community sample; 68.3% women; 78.1% White, 7.6% Black, 6.1% Hispanic, 4.5% Asian, 2.2% Multiracial, <2% Other; 35.72 years; BMI=28.12 (7.44).	<i>Terminology compared:</i> "Weight," "heaviness," "BMI," "obesity," "excess weight," "fatness," "excess fat," "large size," "unhealthy body weight," "weight problem," and "unhealthy BMI."	<i>Weight Preferences</i> Questionnaire; 5-point Likert scale (1=very desirable to 5=very undesirable)	"Weight" and "BMI"	"Fatness" and "excess fat"	"Unhealthy body weight" and "unhealthy BMI" had neutral ratings. The terms "large size," "heaviness," "obesity" were rated as less desirable than "weight"/"BMI." Differences in preferences occurred across participant gender, race, and BMI.
Pearl et al. (2018; USA; Cross-sectional study) ⁵¹	N=97 patients seeking bariatric surgery; 87% women; 62% White, 37% Black, 2% American Indian, 1% Asian; 46.3 years; BMI=45.4 (7.2).	<i>Terms compared with describe person with BMI>30:</i> "person with elevated BMI," "person with obesity," "person with excess weight," "heavy person," "obese person," "person with excess fat," "fat person." <i>Terms compared with describe person with BMI>40:</i> "class III obesity," "severe BMI," "extreme BMI," "severe obesity," "extreme obesity," "morbid obesity"	<i>Stigma Preferences</i> Questionnaire; Assessed patient preferences for weight-based terminology using 7-point Likert scales (1=strongly dislike to 7=strongly like)	"Person with elevated BMI" and "person with obesity"	"Fat person," "morbid obesity" and "person with excess fat"	Most patients preferred "person with obesity" (76%) rather than "obese person" (22%). Women were more likely to prefer people-first language than men.
Puhl and Himmelstein (2018; USA;	N=148 adolescents enrolled in weight	<i>Terminology compared:</i> "weight," "higher body	Self-report survey; asked preferences for	"Weight problem," "plus size,"	"Extremely obese," "obese," "curvy,"	Word preferences varied according to (Continues)

TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (\pm SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Cross-sectional study ⁵²	loss camp; 50% girls; 90.5% White, 4.7% Hispanic/Latino, 2.7% Asian, 2% Black; 15.97 years; BMI=27.06 (4.39).	weight; "unhealthy weight," "weight problem," "BMI," "high BMI," "overweight," "obese," "chubby," "curvy," "plus size," "heavy," "large," "big," "fat," "extremely obese."	terminology used by <i>healthcare providers</i> in weight discussions, using 5-point Likert scale: 1=No, please never use this word to 5=Yes, I prefer you use this word	"chubby," "BMI," "unhealthy weight" and "weight"	"large," "big" and "fat"	adolescents' gender, BMI, and degree of internalized weight bias. Most mean ratings of terminology were near the midpoint of the scale, corresponding to "not sure."
Puhl and Himmelstein (2018; USA; Cross-sectional study) ⁵³	N=148 adolescents enrolled in weight loss camp; 50% girls; 90.5% White, 4.7% Hispanic/Latino, 2.7% Asian, 2% Black; 15.97 years; BMI=27.06 (4.39).	Terminology compared: "weight," "healthy weight," "BMI," "high BMI," "higher body weight," "weight problem," "unhealthy weight," "overweight," "chubby," "plus size," "curvy," "obese," "large," "heavy," "big," "fat," "extremely obese"	Self-report survey using 5-point Likert scales; Participants asked (a) which words their parents use to describe their weight (1=I've never heard my parent(s) use this word to 5=My parent(s) uses this word a lot) (b) which words they most want their family to use (1=No, my parents should never use this word, to 5=Yes, I prefer them to use this word) c) their emotional responses to parental use of each word	"Weight problem," "plus size," "chubby," "unhealthy weight," "BMI," "healthy weight," "weight"	"Extremely obese," "curvy," "obese," "fat," "large," "heavy"	Word preferences varied according to adolescents' gender, BMI, and degree of internalized weight bias. Words that induced the highest mean scores for negative emotions (sad, embarrassed, ashamed) were: "large," "big," "high BMI," "fat," and "overweight." Negative emotional responses to parental word use varied by gender and BMI.
Puhl et al (2017; USA; Cross-sectional survey) ⁵⁴	N=50 adolescents enrolled in weight loss camp; 54% girls; 70% White, 12% Hispanic/Latino, 10% Other, 4% Black, 4% Asian; 17.28 years; BMI=34.06 (6.88).	Terminology compared: "weight," "higher body weight," "unhealthy weight," "weight problem," "BMI," "high BMI," "overweight," "obese," "extremely obese," "heavy," "chubby," "fat," "large," "plus size," "curvy" and "big"	Self-report survey using 5-point Likert scales. Participants asked (a) which words they most want their family to use when talking about their weight: (1=No, my parents should never use this word to 5=Yes, I	"Weight," "higher body weight"	"Extremely obese," "obese," "fat,"	Boys expressed higher preferences for "overweight" and "heavy" compared with girls; Girls preferred "curvy" compared with boys. Among girls, at least 40% reported feeling sad/embarrassed if their parents used

(Continues)

TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (±SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Puhl et al (2013; USA; Cross-sectional study) ¹⁵	N=1064 US adults from national online panel; 60.4% women; 73.8% White, 13.2% Black, 13% Other; 45 years; BMI=28 (7).	Terminology compared: "weight," "unhealthy weight," "weight problem," "high BMI," "overweight," "obese," "morbidly obese," "heavy," "chubby" and "fat."	Modified version of Weight Preferences Questionnaire; 5-point Likert scale. Participants rated the degree that each term is stigmatizing, blaming, and motivating for weight loss when used by a healthcare provider	Most desirable: "weight," "unhealthy weight" Most motivating: "unhealthy weight," "overweight"	Least desirable and most stigmatizing: "fat," "obese," "morbidly obese"	Several differences in desirability ratings occurred according to participants' BMI and gender. Black individuals and other racial/ethnic minority groups rated "overweight" to be slightly less desirable compared with White individuals. There were no differences across weight categories regarding ratings of words viewed to be stigmatizing, blaming or motivating.
Puhl et al (2011; USA; Cross-sectional study) ²⁴	N=445 parents of children 2-18 years, from national online panel; 59.6% women; 70.7% White, 16.1% Other, 13.2% Black; Age range=18-69 years; 31.6% had BMI=25-29.9, 25.7%	Terminology compared: "weight," "unhealthy weight," "weight problem," "high BMI," "overweight," "obese," "morbidly obese," "heavy," "chubby," "fat."	Modified version of Weight Preferences Questionnaire; 5-point Likert scale. Participants rated the degree that each term is stigmatizing, blaming or motivating for weight loss when used by a healthcare provider	"Weight," "unhealthy weight," "high BMI," "weight problem" Most motivating: "unhealthy weight," "weight problem,"	"Chubby," "obese," "extremely obese," "fat" (above terms rated as least desirable, least motivating,	No differences in desirability ratings according to parents' gender or weight status. Black parents rated "fat" as less undesirable than White parents. Several age

(Continues)

TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (+SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Roberto et al (2016; USA; Cross-sectional study) ⁵⁵	N=46 adult patients with Binge Eating Disorder; 75% women, 71.7% White, 15.2% Black, 8.7% Hispanic White, 2.2% Hispanic Black, 2.2% Asian; 47.8 years; BMI=35.57 (5.81).	Terminology compared: "Weight," "heaviness," "BMI," "obesity," "excess weight," "fatness," "excess fat," "large size," "unhealthy body weight," "weight problem," and "unhealthy BMI."	Weight Preferences Questionnaire; 5-point Likert scale (1=very desirable to 5=very undesirable)	"Weight," "BMI," "unhealthy body weight," "unhealthy BMI"	"Fatness," "obesity," "excess fat," "large size"	"Fatness" was rated significantly less desirable than all other terms except "obesity." Sample size prevented comparisons in preferences across gender, BMI, age, race/ethnicity.
Smith et al (2007; USA; Randomized experimental study) ⁵⁶	N=236 college students; 82% women; 97% White; 20.4 years; weight status/BMI not reported	Aim: To assess whether participants evaluate a woman with high body weight differently based on how her body size is described, using the terms: "full figured," "overweight," "obese," "fat" or an objective weight measure of "197 lbs."	Participants were randomly assigned to read a fictional personal advertisement for a woman whose weight descriptor (but not actual body size) was manipulated across six conditions. Participants rated the target on seven semantic-differentials of positive and negative qualities (7-point scale)	-	-	When the female target was described as "fat," "obese" or "overweight," participants rated her more negatively than when she was described as "full-figured" or "197 lbs." The targets described as "fat" and "obese" were rated most negatively on qualities of health and attractiveness, and were rated similarly high in "fatness" and perceived to be larger than targets described as "overweight" or "197 lbs." The "full

(Continues)

TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (+SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Swift et al (2013; UK; Cross-sectional study) ⁵⁷	N=1,036 students training to become dietitians, nurses, and doctors; 78.7% women; race/ethnicity not reported; 20.3 years, Median BMI=21.5 (3.79). Mean BMI not reported.	Terminology compared for initiating discussions with patients: "weight," "heaviness," "obesity," "BMI," "excess weight," "fatness," "excess fat," "large size," "unhealthy body weight," "weight problem," "unhealthy BMI."	Participants rated appropriateness of each term when initiating weight discussions with a patient who has a BMI<30. 5-point Likert scale used (1=very desirable, 5=very undesirable)	"BMI," "weight," "unhealthy BMI"	"Fatness," "excess fat," "large size" "heaviness"	figured" label generated more positive ratings. Control targets (no weight descriptor) were viewed most positively. None of the 11 terms were rated as desirable. The phrase most likely to be used in consultation when defining a patient's weight was "your weight may be damaging your health" (67.6%) followed by "you are an unhealthy weight" (8.9%). About 87.7% of participants preferred to use a euphemism instead of the term "obese" or "obesity."
Taylor and Ogden (2009; UK; two studies – one cross-sectional study, one randomized experimental study) ⁵⁸	Study 1: N=19 General Practitioners; 37% women; 40-60 years old. Race/ethnicity and BMI were not reported.	Terminology compared for discussing weight with patients: "you are heavier than you should be," "you are overweight," "you are too fat," "you need to lose weight," "you are suffering from obesity," "you are obese," "you are heavier than you should be," "you are an unhealthy weight," "you are too fat," "you are too large" and "you have put on too much weight."	Participants stated their preferred terminology for informing/defining a patient's body weight during a consultation.	"Your weight may be damaging your health"; "you are an unhealthy weight"	"You are too fat"; "you are an unhealthy weight"; "you are heavier than you should be"; "you are obese"; "you are	About 47% preferred to say "your weight may be damaging your health," followed by "you are overweight" (21%), and "you need to

(Continues)

TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (+SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Vartanian (2010; USA; Quasi-experimental study) ⁵⁹	N=425 undergraduate students; 48.2% women; Race/ethnicity not reported; 19.3 years; BMI=23.6 (3.8).	unhealthy weight; "your weight may be damaging your health," "you are obese," "you are suffering from obesity."	Participants completed items derived from the Revised Illness Perception Questionnaire to assess their beliefs about the problem. 5-point Likert scale.	--	suffering from obesity"	lose some weight" (16%)
		Aim: Participants were randomly assigned to one of two conditions in which they read a clinical scenario where a doctor weighs them and tells them either "you are obese" or "your weight may be damaging your health"				Patients who were told "you are obese" believed the problem had more serious consequences and greater emotional impact than being told "your weight may be damaging your health."
Volger et al (2012; USA; Cross-sectional study) ²⁵	N=390 adult primary care patients with a BMI >30 seeking weight loss; 80%	Aim: To assess whether the terms "obese people" versus "fat people" affect judgments that participants make about each group. 300 participants answered survey questions about "obese people" while 125 participants answered questions about "fat people"	Participants completed 9-point Likert scale items regarding their attitudes toward the target group, perceptions of individual control over membership in the target group, as well as feelings of disgust, pity, and personal similarities to the target group.	-		The term "obese people" resulted in more negative evaluations than "fat people." Compared with the term "fat people," participants rated "obese people" as less favourable and more disgusting, and viewed themselves as less similar to "obese people" than "fat people," and less likely to become an "obese person" than a "fat person."
		Terminology compared: "weight," "heaviness," "BMI," "obesity," "excess weight," "fatness,"	Weight Preferences Questionnaire; 5-point Likert scale (1=very weight)	"Weight," "BMI," "weight problem" and "excess weight"	"Fatness," "excess fat," "large size," "obesity," "heaviness"	Preferences did not differ for patients with BMI >40 to those with lower

(Continues)

TABLE 1 (Continued)

Author (Year, Country, Study Design)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI (+SD))	Words/Phrases Compared (or Other Study Aim)	Measurement	Most Preferred Language	Least Preferred Language	Other Notable Findings
Wadden and Didie (2003; USA; Cross-sectional study) ³⁸	N=219 adults enrolled in clinical trials for obesity treatment; 76.2% women; 82.6% White, 15% Black, 2% Other; Women had mean age of 47.5 years and BMI=35.3 (5.1); Men had mean age of 45.6 years and BMI=35.1 (4.1) N=105 adult women seeking bariatric surgery; 78% White, 20% Black, 1.9% Other; 42.7 years; BMI=52.7 (10.4).	“excess fat,” “large size,” “unhealthy body weight,” “weight problem,” and “unhealthy BMI.” Terminology compared: “weight,” “heaviness,” “BMI,” “obesity,” “excess weight,” “fatness,” “excess fat,” “large size,” “unhealthy body weight,” “weight problem” and “unhealthy BMI.”	Weight Preferences Questionnaire; 5-point Likert scale (1=very desirable to 5=very undesirable)	“Weight”	“Fatness,” “excess fat,” “obesity,” “large size,” “heaviness”	BMI, or across gender and racial/ethnic groups. Participants rated “weight” as significantly more desirable than all other terms. The terms fatness, excess fat, and large size were rated significantly more undesirable by women than men. Black women rated “unhealthy body weight” as undesirable, whereas white women rated it more neutrally. Women with a BMI of 30–40kg/m ² rated “obesity,” “fatness” and “excess fat” more undesirable than women with higher BMIs.

Note. The Weight Preferences Scale³⁸ presents respondents with the following scenario prior to completing word preference ratings: “Imagine that you are visiting your doctor for a check-up. The nurse has measured your weight and found that you are at least 50 lb over your recommended weight. The doctor will be in shortly to speak with you. Doctors can use different terms to describe weight. Please indicate how desirable or undesirable you would find each of the following terms if your doctor used it.”
Abbreviation: BMI: body mass index.

TABLE 2 Summary of published qualitative studies examining weight-related terminology and language preferences

Author (Year, Country)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI \pm SD)	Study Objectives	Data Collection Method and Question Format	Most Preferred Language	Least Preferred Language	Other Notable Findings
Bolling et al (2009, USA) ⁶⁰	N=23 parents of children ages 3-6 years in 85th-94th BMI percentile; 52% women; 100% White; 37.1 years. Mean BMI not reported.	To obtain feedback from parents of preschoolers on weight-based terms used by paediatricians when addressing weight status.	Focus groups; Questions: What does it feel like to have your paediatrician describe your child as "at risk for overweight"? ... as "overweight"? ... as "obese"? ... as "chubby"? ... as "big boned"? Do you consider these terms motivating, offensive or neutral?	"Overweight," "obese"	"Big boned," "chubby" and "at risk for overweight"	Parents perceived the terms "at risk for overweight" and "big-boned" to be confusing, and "chubby" to be offensive. Parents expressed that the terms "overweight" or "obese" would be upsetting but concerning to motivate action.
Ellis et al (2014, USA) ⁶¹	N=145 low income women; 72% white, 12% Black, 8% Hispanic; 31.6 years; 58.6% had BMI > 30, 20.7% had BMI 25 < 30. Mean BMI not reported.	To determine how low-income women understand meanings of the terms "overweight" and "obese"	Semi-structured interviews; Questions: What does the word overweight mean to you? What does the word obese mean to you?	-	-	Both "overweight" and "obese" were viewed as offensive and "bad" terms, with negative connotations of being unmotivated, lazy or not caring about themselves. "Obese" viewed to be more extreme than the BMI definition.
Gray et al (2011, UK) ⁶²	N=34 adults from the West of Scotland Twenty-07 Study classified as "overweight or obese"; Mid-to-late 30s to 50s. No data provided on gender/race distribution or mean age or BMI.	To examine the acceptability of weight status terms and their potential to motivate weight loss when used by health care professionals.	Semi-structured interviews. Participants provided with a list of the following terms to explore their views on the acceptability and effectiveness of terms in motivating weight loss: "overweight," "heavy" "obese," "high BMI," "excessive weight," "fat," "excessive fat," "large," "unhealthy high body weight,"	"High BMI," "unhealthy BMI," "unhealthy high body weight" and "overweight"	"Obese," "fat" and "excessive fat"	Word preferences differed for use in social versus medical contexts. Responses to words differed among men and women, and younger versus older participants. There was disparity in terms viewed as acceptable versus motivating for weight loss: "overweight" was viewed as acceptable, but less motivating for weight loss.

(Continues)

TABLE 2 (Continued)

Author (Year, Country)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI \pm SD)	Study Objectives	Data Collection Method and Question Format	Most Preferred Language	Least Preferred Language	Other Notable Findings
Guo et al(2018; USA) ⁶³	N=50 caregivers of children ages 4-12; 68% women; 74% White, 14% Black, 10% Asian/Pacific Islander, 2% Hispanic/Latino; 82% aged 35-55 years. Mean age and BMI not reported.	To determine preferred communication approaches that dental professionals can use to initiate dialogue with caregivers about the weight of their children.	Semi-structured interviews; Participants were presented with seven communication approaches for weight conversations imbedded with different word choices, to examine participants' receptiveness on how the message is delivered.	"Overweight," "obese," "your child's weight really caught my attention"	"Fat," "being fat," "chubby," "your child's weight is really disturbing/alarming"	About 94% of participants were receptive to discussing child's weight in the dental setting. But many stated the importance that verbiage must be chosen carefully. The terms "body mass index" and "your child's weight is very concerning" were viewed as acceptable, but not most preferred.
Knierim et al (2015; USA) ⁶⁴	N=54 Hispanic/Latino parents; Among English speaking parents (n=23), 91% women; 57% aged 33-50 years. Among Spanish speaking parents (n=31), 97% women, 58% aged 33-50 years. Mean age and BMI not reported.	To identify what English and Spanish terms Latino parents view as motivating and culturally appropriate for providers to use in weight counselling with Latino youth.	Six focus groups (three Spanish, three English). Participants provided with list of weight terms and asked (1) which terms they would want their child's doctor to use if their child's weight was too high, (2) which terms would make them want to help their child lose weight and (3) which terms offend them. English terms: "weight," "unhealthy weight," "high BMI," "weight problem," "overweight," "heavy," "chubby," "obese," "extremely obese" and "fat." Spanish	"Demasiado peso para su salud" ("too much weight for his/her health") *this was the only term viewed to be motivating, inoffensive, and desirable for use in paediatric weight counselling	"Obese"/ "obeso" and "fat"/ "gordo"	Latino parents identified very few words/phrases as motivating, inoffensive, and desirable for doctors to use with their children. Many terms (both Spanish and English) were viewed as offensive or confusing. Some terms had cultural connotations; terms like "big" or "chubby" could make them feel proud as parents. Some parents reported that "gordis" ("little fatty"), "gordito" ("chubby") or "panzón" ("big belly") are used as

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TABLE 2 (Continued)

Author (Year, Country)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI \pm SD)	Study Objectives	Data Collection Method and Question Format	Most Preferred Language	Least Preferred Language	Other Notable Findings
Sonneville et al (2019, USA) ⁶⁵	N=950 participants from the National MyVoice Text Message Cohort; 56.6% female; 69.4% White, 10.3% Asian, 9.1% Black, 11.3% Other; 18.7 years; Weight status/BMI not reported.	To examine youth preferences for weight-related conversations with a doctor.	Open-ended responses via text messages to the following questions: "has your doctor ever talked to you about weight?", "What did he or she say?" and "what should a doctor NOT say when talking about weight?"	--	"Fat," "chubby"	About 32% of youth said that doctors should avoid stigmatizing terms; 25% expressed that doctors should avoid shaming, judgmental or critical comments; 12% favoured conversations that were health-focused rather than weight-focused; 11% said there should be no restrictions on what doctors say about weight.
Thomas et al (2008, Australia) ⁶⁶	N=76 adults with obesity (community sample); 83% women; 47 years; BMI=42.5. Race/ethnicity not reported.	To examine lived experience of obesity and the impact of sociocultural factors on people living with obesity.	Semi-structured interviews. Participants were interviewed about their experiences with weight, attitudes toward "obesity,"	"Overweight," "fat"	"Obesity"	About 80% reported that they hated or disliked the word "obesity" and would rather be called "fat" or "overweight." Most understood that obesity is a medical

(Continues)

TABLE 2 (Continued)

Author (Year, Country)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI \pm SD)	Study Objectives	Data Collection Method and Question Format	Most Preferred Language	Least Preferred Language	Other Notable Findings
Turer et al (2014, USA) ⁶⁷	N=26 Latino parents; 35 years; 81% of mothers and 54% of fathers with BMI \geq 25. N=26 children; 58% girls; 9.5 years; 81% at \geq 95th BMI percentile, 19% at $>$ 85th to $<$ 95th percentile. N=15 paediatricians; 73% women; 40% White, 33% Asian, 13% Black, 13% Latino; 39% with BMI \geq 25. (Mean BMIs not reported)	To examine paediatrician communication about weight with Latino children and their parents.	societal attitudes, interactions with health professionals, and opinions of interventions to help people with obesity. Video-recorded primary care visits that were transcribed.	--	--	Paediatricians communicated child's weight status in 81% of visits. Themes for how paediatricians communicated the child's weight included: "BMI," "weight," "obese" and "chubby," with the subthemes of "not healthy," "high weight," "weight going up," "heavy" and "fat."
Uy et al (2019, USA) ⁶⁸	N=40 parents of preschoolers; 72.5% women; 80% White, 5% Hispanic, 5% Asian, 5% Mixed/other, 2.5% Black; 31.2 years. Weight status/BMI not reported.	To examine parents' preferences for how physicians should approach diet and weight-related advice for their child.	Semi-structured interviews; Questions: If your child's doctor had a concern about your child's weight or the way your child was eating, would you want them to bring that up to you in an appointment? How would you want them to bring it up to you? What sorts of things would you want them to do or say about their concern? Is	--	--	50% of parents wanted physicians to be honest and straightforward when discussing their child's weight; 51% wanted physicians to display sensitivity in their use of words/phrases. 22.5% of parents wanted physicians to avoid offensive terms like "fat," and 15% wanted physicians to focus conversations on health behaviours, not weight. 12.5% of

(Continues)

TABLE 2 (Continued)

Author (Year, Country)	Sample (Size/Type, Gender, Race, Mean Age, Mean BMI \pm SD)	Study Objectives	Data Collection Method and Question Format	Most Preferred Language	Least Preferred Language	Other Notable Findings
Ward et al (2009, USA) ⁶⁹	N=43 African American primary care patients with BMI > 30 at an academic health centre; 63% women; Median age 50 years; Median BMI=38.6. Mean age/BMI not reported.	To examine how African American patients perceive the physician's role in obesity treatment and provider behaviours that motivate/interfere with weight loss attempts.	there anything you would not want them to say or do? Gender congruent focus groups.	--	"Obese" "obesity"	parents preferred discussions to occur without their child present. Participants expressed strong dislike, less motivation and increased frustration when physicians use the term "obese." Some participants offered the following alternatives for "obese": "thick," "heavy," "big boned" and "well endowed"

Abbreviation: BMI: body mass index.

provided Likert scale ratings for which terms they perceived to be most desirable or most likely to use when talking to patients about his/her weight.^{37,57,58}

For the quantitative experimental studies assessing the impact of specific weight labels (eg, "fat" versus "overweight") on participant perceptions, studies used a range of outcome measures including attitude thermometer ratings, figure silhouette scales, semantic differential scales and other self-report measures.^{42,44,47,56,59} Finally, of the 10 qualitative studies, five studies used semi-structured interviews,^{61-63,66,68} three studies used focus groups,^{60,64,69} one study used video-recorded interactions between primary care providers and patients⁶⁷ and one study used open-ended responses via text messages.⁶⁵ Key questions posed to participants in these studies included asking them about their perceptions of and reactions to specific weight-related terms or communication approaches used by healthcare providers, soliciting their suggestions for how they would like healthcare providers to communicate about weight, or discussing what specific weight-related terms mean to them (eg, "overweight" or "obese").

3.2 | Quantitative findings: Word preferences documented in cross-sectional survey studies

3.2.1 | Community samples of adults

Of the three cross-sectional studies using online community samples of adults,^{15,45,50} participants across studies reported preferences for neutral terminology, including the words "weight," "BMI," "unhealthy weight" or the phrases "your weight may be damaging your health" or "you are above your healthy weight range."⁴⁵ The terms "fat," "fatness," "obese" and "morbidly obese" were rated as least acceptable and most undesirable across studies. While one study did not report on race/ethnicity,⁴⁵ the other two studies (both assessing similar terminology in the context of preferred weight communication from a healthcare provider) found differences in preference ratings across gender, race and BMI.^{15,50} In both studies, women rated the least desirable terms to be more undesirable than men. Lydecker and colleagues found that participants (N=817) with higher BMI rated the words "BMI" and "unhealthy BMI" as less desirable compared with participants with lower BMI,⁵⁰ whereas Puhl and colleagues found in their sample (N=1,064) slightly higher preferences for the terms "high BMI," "overweight" and "fat" among participants with a BMI \geq 30 compared with participants with lower BMI's (though "fat" was rated as undesirable across all weight categories).¹⁵ With respect to race, Lydecker et al found that the terms "fatness" and "fat" were rated to be more undesirable by White versus Black participants, and Puhl et al found that "overweight" was rated as slightly less desirable by Black compared with White participants.^{15,50}

3.2.2 | Adults with obesity seeking weight loss

Of the four studies examining word preferences among weight-loss treatment seeking adults,^{25,37,38,51} three studies used the Weight

Preferences Questionnaire^{25,37,38} and one study by Pearl and colleagues developed a word preferences survey informed by this measure.⁵¹ Across the three studies using the Weight Preferences Questionnaire, the term “weight” was rated to be most preferable, as were terms like “BMI,” “weight problem” and “unhealthy body weight,” whereas the terms “fatness,” “excess fat,” “large size,” “obesity” and “heaviness” were rated as least desirable. While one study found no differences in preference ratings across gender or race/ethnicity,²⁵ two studies reported differences: Wadden and colleagues found that women tended to rate some terms as more undesirable than men and that the term “unhealthy body weight” was rated as undesirable by Black women but rated neutrally by White women³⁸; Dutton and colleagues found that White participants rated “obesity” as more undesirable than Black participants.³⁷ The fourth study, by Pearl and colleagues,⁵¹ specifically assessed preferences for people-first language in a sample of bariatric surgery candidates (N=97), finding that most (76%) preferred people-first language such as “person with elevated BMI” and “person with obesity” and disliked “person with excess fat,” “fat person” and “morbid obesity.” Women had stronger preferences for people-first language than men.

3.2.3 | Adults with binge eating disorder (BED)

Roberto and colleagues⁵⁵ used the Weight Preferences Questionnaire to assess preferences for weight terminology among patients with BED (N=46). The term “weight” was rated to be most preferable, followed by “BMI,” “unhealthy body weight” and “unhealthy BMI.” The terms “fatness” and “obesity” were rated as least desirable, and the terms “excess fat,” “large size” and “heaviness” also received low desirability ratings. Differences in preference ratings across sociodemographic characteristics were not examined.

3.2.4 | Adult primary care patients

Koball and colleagues⁴⁹ used multiple choice survey questions with Likert scale responses to assess adult primary care patients' (N=242) perceptions of weight conversations with healthcare providers. While specific word preferences were not compared, 58% of participants reported that they would be “not at all offended” if a doctor diagnosed them as “overweight” or “obese,” and 74% indicated that they wanted their healthcare provider to be “very direct/straightforward” when discussing weight. More participants who had a higher BMI indicated that they wanted healthcare providers to “discuss weight sensitively” (46%) compared with respondents with lower BMI (16%).

3.2.5 | Parents

Three studies assessed parental preferences for weight-related terminology when used by physicians to describe their child's

weight^{24,43,48}: two with samples comprised of 65 to 70% White parents^{24,43} and one using a sample of Latino parents.⁴⁸ Two of these studies^{24,48} modified the Weight Preferences Questionnaire, and the third study used several comparable weight-related terms, asking parents which word physicians should use to describe a child's weight.⁴³ Across studies, parents preferred neutral terminology including “weight,”^{24,48} “unhealthy weight,”^{24,48} “high BMI”²⁴ or the phrases “gaining too much weight”⁴³ or “too much weight for his/her health.”⁴⁸ The terms “fat” and “obese” were viewed to be undesirable across all three studies, and the words “chubby,” “extremely obese” and “very fat” were similarly viewed to be undesirable, offensive and the least motivating.^{24,48} Among Latino parents, Knierim and colleagues found that for both English-speaking and Spanish-speaking parents (N=525), the term “too much weight for his/her health” (“demasiado peso para su salud”) was viewed to be motivating, while none of the “BMI”-related terms were perceived to be motivating or desirable.⁴⁸ Puhl and colleagues found no differences by gender or weight status in parental language preferences (N=445), but Black parents rated “fat” as less undesirable than White parents, and parents who themselves had experienced weight stigma rated 8 out of 10 terms to be more stigmatizing compared with parents who had not experienced stigma.²⁴

3.2.6 | Adolescents seeking weight loss

Several studies have assessed adolescent preferences for 16 weight-related terms when used by family members^{53,54} or healthcare providers⁵² in conversations about weight, using samples of adolescents enrolled in weight loss camps. For weight communication from healthcare providers, adolescents (N=148) preferred the terms “weight problem,” “plus size,” “chubby,” “weight” and “BMI” and assigned the lowest ratings to the terms “extremely obese,” “obese,” “curvy,” “large” and “fat.”⁵² Most mean ratings for words were near the midpoint of the 5-point Likert scale (corresponding to uncertainty of preference), and word preferences varied by gender, BMI and extent of internalized weight bias in adolescents. For weight communication from family members, adolescents (N=50, N=148)^{53,54} similarly preferred the terms “weight” and “higher body weight,”^{53,54} as well as “overweight,”⁵⁴ “weight problem,” “plus size,” “BMI” and “unhealthy weight,”⁵³ while the terms “extremely obese,” “obese” and “fat” were viewed as undesirable in both studies. Word preferences again varied across gender and BMI; boys viewed words like “overweight” and “heavy” to be more desirable than girls, and girls expressed higher preferences for the word “curvy” compared with boys.⁵⁴ In both studies, adolescents were asked to indicate their emotional responses to parental use of each word; emotional responses varied by adolescents' BMI and gender, but many words induced sadness, embarrassment and shame,⁵³ particularly among girls,⁵⁴ and approximately 30% of both boys and girls reported feeling ashamed in response to the word “obese.”⁵⁴

3.2.7 | Healthcare professionals and trainees

Three studies have assessed perceptions of weight-related terminology among physicians^{37,58} or student trainees⁵⁷ in professional health disciplines. Two studies asked physicians to rate their likelihood of using various weight-related terms or phrases when discussing weight with patients,^{37,58} while a third study asked student trainees to rate the desirability of different terminology and likelihood of using different terms when consulting a patient about his/her body weight.⁵⁷ Physicians indicated that they would be most likely to use the term "weight"³⁷ or the phrase "your weight may be damaging your health"⁵⁸; they were least likely to use "fatness," "excess fat," "heaviness" and "large size"³⁷ or to tell patients "you are too fat" or "you are an unhealthy weight."⁵⁸ In both studies, physicians avoided using the term "obese" or "obesity." Among student trainees (N=1,036), neutral terms including "BMI," "weight" and "unhealthy weight" were viewed to be most desirable to use in conversations with patients, and the terms "fatness," "excess fat" and "heaviness" were viewed to be least desirable. Students indicated that they would be most likely to use the phrase "your weight may be damaging your health" (67%) during a consultation with a patient, and 87% preferred to use this type of phrase rather than the terms "obese" or "obesity."⁵⁷

3.3 | Quantitative findings: Effects of weight terminology in experimental studies

Although six studies included in this review used experimental designs to assess weight-related terminology,^{42,44,47,56,58,59} each differed according to primary research question(s), experimental manipulations and measurement. Several experimental studies examined how exposure to specific weight labels influences participants' perceptions of other people with high body weight. In a series of three studies with college students (N=477, N=78, N=60), Brochu and Esses compared the effects of a "fat" versus "overweight" label on perceptions of people with higher body weight, showing that while participants evaluated "fat" and "overweight" body sizes to be similar, they expressed more negative attitudes and greater endorsement of stereotypes toward "fat" versus "overweight" people.⁴² Attitudes were consistent regardless of participants' weight, gender and race/ethnicity. These experimental findings parallel survey research by Greenleaf and colleagues, who similarly found that college students (N=131) perceived the words "overweight" and "fat" to be associated with similar body sizes, but more frequently assigned negative stereotypes (eg, lazy) to "fat" compared with "overweight" figures.⁴⁶ Thus, these findings suggest that more negative views of the term "fat" compared with "overweight" are not because people view "fat" to represent a larger body size than "overweight." Taken together, this evidence begins to address an important question that has not been assessed in studies comparing language preferences, which is whether preferences for specific weight terminology reflect assumptions about different body sizes associated with each weight label.

Smith and colleagues randomly assigned college students (N=236) to read a fictional personal advertisement of a woman whose body weight was described using one of six different descriptors across experimental conditions.⁵⁶ Conditions in which the woman was described as "fat," "overweight" or "obese" induced more negative stereotypes by participants than when the advertisement described her weight as "full figured" or as "5'4" and 197 lbs" (the control condition with no weight label was rated most positively). In addition, participants viewed the "fat" and "obese" targets as having a larger body size than targets described as "overweight" or "197 lbs," though all four descriptors induced similar ratings of health and attractiveness. Finally, in a study of 425 college students, Vartanian reported that the term "obese people" induced more negative evaluations (rated less favourably and as more disgusting) than the term "fat people."⁵⁹

Experimental studies have also assessed the effects of weight terminology on participants' self-perceptions. Essayli and colleagues randomly assigned college students (N=113) to receive either a "normal weight" or "overweight" label after being weighed and found that students who were assigned the "overweight" label subsequently endorsed worse body image, negative affect, lower perceived health and higher internalized weight bias compared with participants in the "normal weight" label condition.⁴⁴ Hopkins and Bennett assessed how the terms "weight," "BMI," "obesity" and "fat" affect self-perceptions in adults with a BMI > 25 (N=436); the term "obesity" induced higher self-efficacy for behaviour change and perceived control over obesity, while the term "fat" resulted in poorer understanding of obesity, and "BMI" had no significant effects.⁴⁷ There was no difference by weight-related term in participants' interest to initiate weight loss treatment. Taylor and Ogden assessed how adult primary care patients (N=449) respond to hypothetical clinical scenarios in which they are weighed and told by a doctor that "you are obese" or "your weight may be damaging your health."⁵⁸ Those who were told "you are obese" believed obesity had more serious consequences and made them feel more anxious and distressed compared with participants who were told "your weight may be damaging your health." When accounting for BMI of participants, using the term "obese" induced more negative emotional responses only for patients with a BMI \leq 30. Participants with higher BMIs >30 found the phrase "your weight may be damaging your health" to be more upsetting.

3.4 | Qualitative findings

3.4.1 | Community samples of adults with overweight or obesity

Two qualitative studies (from the UK⁶² and Australia⁶⁶) used semi-structured interviews to examine perceptions of weight-related terms among adults with overweight or obesity. Gray and colleagues⁶² examined participant perceptions (N=34) of 11 weight-related terms, finding that "high BMI," "unhealthy BMI," "unhealthy high body weight" and "overweight" were viewed most favourably, while the

terms “obese,” “fat” and “excessive fat” were viewed least favourably. Word preferences varied across gender and age, and for social versus medical contexts. In an Australian study, Thomas et al asked adults with obesity (N=76) to describe their lived experiences of obesity, of which 80% stated that they disliked or hated the word “obesity” and would rather be called “fat” or “overweight.”⁶⁶

3.4.2 | Adult primary care patients with obesity

Ward and colleagues⁶⁹ conducted gender-congruent focus groups to examine how African American primary care patients with obesity (N=43) perceive physician behaviours that may motivate or hinder their weight loss attempts. Participants expressed dislike, lower motivation and frustration when physicians use the word “obese.” While participants were not asked about preferences for specific terminology, some offered preferred alternatives including “thick,” “heavy,” “big boned” and “well-endowed.”

3.4.3 | Low-income women

One qualitative study⁶¹ examined perceived meanings of the terms “overweight” and “obese” among low-income women (N=145), of which 79% had either overweight or obesity. Using semi-structured interviews, women perceived both “overweight” and “obese” to be offensive terms and associated these words with negative stereotypes of being lazy, unmotivated or not caring about oneself.

3.4.4 | Parents

Four qualitative studies have examined parental perceptions of weight terminology that healthcare providers use with youth^{60,63,64,68}; two using focus groups^{60,64} and two using semi-structured interviews.^{63,68} Focus group studies have yielded mixed findings. Among Latino parents (N=54), Knierim and colleagues⁶⁴ examined parental reactions to 10 weight-related terms and found that both English- and Spanish-speaking parents preferred the phrase “too much weight for his/her health” and disliked the terms “obese”/“obeso” and “fat”/“gordo.” Many terms were viewed to be confusing or offensive, and some parents noted cultural connotations of words like “gordito” (chubby), which are used as terms of endearment for children.⁶⁴ In contrast, focus groups with primarily White mothers of young children (N=23)⁶⁰ found that they preferred that paediatricians use the terms “overweight” and “obese” when talking about their child’s weight status rather than more colloquial terms like “chubby,” “plump” or “big boned.” Some parents noted that while it might be upsetting to hear the words “overweight” or “obese,” these would concern them sufficiently to motivate action.⁶⁰

Using semi-structured interviews, two studies have examined parents’ preferred communication approaches used by healthcare professionals to talk to parents about their child’s weight status.

Guo and colleagues presented parents (N=50) with seven communication approaches for weight conversations initiated by dental professionals, embedded with different weight-related terminology.⁶³ Parents preferred approaches using the terms “overweight,” “obese” and “your child’s weight really caught my attention” and disliked approaches that used “fat,” “being fat,” “chubby” or “your child’s weight is really disturbing/alarming.” While “body mass index” was viewed as an acceptable term, it was not among the most preferred terms. Almost all parents were receptive to dental professionals discussing their child’s weight status, but cautioned that their words should be chosen carefully. Uy and colleagues asked parents of preschoolers (N=40) what things they would or would not want their child’s doctor to say when discussing their child’s weight.⁶⁸ While parents were not provided with specific terminology, 51% stated that physicians should use sensitive terminology, 22.5% stated that physicians should avoid offensive and inappropriate terms like “fat” and 15% wanted physicians to focus conversations on health behaviours rather than weight.⁶⁸

3.4.5 | Adolescents

Sonneville and colleagues⁶⁵ examined preferences for weight-focused conversations with doctors in a sample of adolescents (N=950) who provided open-ended responses to text message prompts about weight-related conversations with their doctors. While specific terminology was not provided to participants, 32% responded that doctors should avoid stigmatizing terms about weight like “fat” or “chubby,” 12% preferred health-focused rather than weight-focused conversations with doctors and 11% expressed that doctors should have no restrictions on what they say about weight.

3.4.6 | Healthcare professionals

Using video-recorded primary care visits between 15 paediatricians and 26 Latino families, Turer and colleagues⁶⁷ coded communication by paediatricians related to the child’s weight. Paediatricians communicated the child’s weight status in 81% of the recorded visits, with primary themes of communication including “BMI,” “weight,” “obese,” “chubby” and secondary themes of “not healthy,” “high weight,” “weight going up,” “heavy” and “fat.”

4 | DISCUSSION

This systematic review provides the first comprehensive synthesis of the existing literature examining people’s perceptions of and preferences for weight-related terminology. Overall, both quantitative and qualitative studies indicated a preference for neutral words to refer to higher body weight, most notably the terms “weight” or “unhealthy weight,”^{15,24,25,37,38,42,45,48,50,52-55,57,62} or neutral phrases such as “your weight may be damaging your health.”⁵⁸ In contrast, the words

"obese" and "fat" (and relatedly "fatness" and "obesity") were generally viewed to be the worst and least acceptable terms across studies,^{15,24,37,38,43,45,48,50-55,57,58,62-65,69} with words like "large size" or "heaviness" typically rated negatively as well.^{25,37,38,53,55} In general, these findings were present across different groups including community samples, adults seeking weight loss, parents, adolescents and healthcare providers. However, contrasting findings also emerged for several weight-related terms like "obese" and "BMI." For the term "obese," one study of adult primary care patients indicated that they would not be offended by the term "obese,"⁴⁹ parents in two studies rated "obese" to be a preferable term^{60,63} and adults in a fourth study reported that they would rather be called "fat" than "obese."⁶⁶ The term "BMI" also yielded mixed findings for preference ratings; some studies found that this term was rated among the most preferred words to communicate about body weight,^{25,37,50,52,53,55,57,62} whereas other studies found that the term "BMI" had no effect on self-efficacy or perceptions of obesity⁴⁷ or was not viewed to be desirable or motivating.⁴⁸

Quantitative study findings demonstrated several significant differences in language preferences across gender, race and BMI of participants. In 10 studies assessing gender differences, four studies found that women tended to rate weight-related terms as less acceptable/more undesirable than men,^{15,37,38,45} three studies identified different word preferences for adolescent girls compared with boys,⁵²⁻⁵⁴ one study found stronger preferences for people-first language among women versus men⁵¹ and two studies found no gender differences.^{24,25} These findings suggest the importance of acknowledging potential gender differences in preferences for weight-related terminology and the need for additional research to clarify for which terms such differences may be most pronounced.

In five studies comparing language preferences across race/ethnicity, several differences were reported in four studies,^{15,24,38,50} and in one study, no differences were found.²⁵ For example, using community samples, one study found that Black individuals rated the term "overweight" as less desirable,¹⁵ and another study found that the terms "fat," "fatness" and "excess fat" were more undesirable to White individuals than Black individuals.⁵⁰ A similar finding for the term "fat" was also reported among a community sample of parents in reference to their child's weight.²⁴ In weight loss treatment-seeking samples, one study found that Black women rated "unhealthy body weight" as an undesirable term, whereas White women rated it more neutrally,³⁸ and another study found that White participants rated the term "obesity" as more undesirable than Black participants.³⁷ Thus, racial/ethnic differences were present but somewhat inconsistent with respect to specific terms or phrases and were primarily limited to comparisons between White and Black individuals. These findings suggest a cautious interpretation of language preferences in the context of race and ethnicity given the lack of sufficient or consistent evidence on how preferences for weight-related terminology may differ across racial/ethnic groups, further highlighting the importance of additional work to determine variation in preferences across race, ethnicity and culture, and in both community and treatment-seeking samples.

With respect to weight status of participants, of the 11 studies that compared word preferences according to participants' body-weight status/BMI, 3 studies found no differences across weight status/BMI,^{25,37,43} and 8 studies observed differences across weight status/BMI,^{24,38,44,45,50,52,53,58} though some effect sizes were small.²⁴ Again, inconsistent findings emerged, with some evidence showing language preference ratings to be less negative/more desirable among people with high BMI/weight status categories compared with lower BMI groups,^{15,38,52} and other evidence showing the opposite, with participants in higher BMI groups rating certain terms to be more negative/less desirable compared with lower BMI groups.^{50,52} As with differences in preference ratings observed for gender and race, these findings indicate variation in preferences by weight status, suggesting the importance of recognizing the diversity of language preferences and that words preferred by some individuals may be disliked by others.

Although very few quantitative studies have examined differences in weight-related terminology preferences according to other participant characteristics, initial evidence suggests that word preferences could differ for people depending on whether they have experienced weight stigma²⁴ and/or the extent that they have internalized this stigma, particularly among adolescents.⁵² It will be important for future work to determine whether experienced and/or internalized weight stigma leads to heightened sensitivity in response to weight-related terminology and an increased likelihood of perceiving language as negative or stigmatizing.

4.1 | Strengths and limitations of the literature base

This review provides the first systematic and comprehensive examination of people's preferences for weight-related terminology. Data extraction and synthesis followed PRISMA methodology and included both quantitative and qualitative studies across multidisciplinary databases. Collectively, studies included assessment of a considerable range of different words or phrases for communicating about obesity and body weight. While the evidence indicates some variation across studies in terminology preferences, a consistent preference for neutral terminology emerged across most study samples, including community and treatment-seeking samples of adults, as well as parents, youth and healthcare providers. The findings of this review offer important insights about the ways in which different groups of people perceive and respond to terminology describing their weight, which can in turn inform best practices for terminology used in weight-related communication, especially from healthcare providers.

However, the reviewed evidence reveals key limitations present in the current literature. First, lack of diversity in study samples is common in the existing literature and problematic in several respects. Many of the existing studies were comprised of predominantly White women. Only 4 of the 33 studies in this review included samples comprised primarily or completely of racial/ethnic minorities.^{48,64,67,69} Differences in language preferences across race/ethnicity were reported

in four of the five studies that assessed such comparisons, highlighting the need for future research to assess perceptions of weight-related language across race and culture. To do this effectively, research efforts will need to address a second key limitation of existing work, which is the need to improve, test and validate measurement of preferences for weight-related terminology using more diverse samples and with the inclusion of culturally relevant terms or phrases used to describe weight, which are currently absent in existing self-report measures. It is likely that existing measures used to assess language preferences are missing relevant terminology that different ethnic and cultural groups use to describe body weight. For example, the word “thick” has emerged as a term used to describe individuals (primarily women) with higher weight in the African American community,^{70,71} and initial qualitative evidence found that African American participants suggested this term as an acceptable alternative to the word “obesity,” though it is not a term that has been included in quantitative measures. Improved measurement will also need to address other aspects of diversity currently absent in existing research, such as assessment of language preferences in individuals with higher weight who do not want to lose weight, and people who identify with fat acceptance and/or health-at-every-size perspectives, for whom terminology preferences may be different than most study findings to date. Further, more attention to measurement of language preferences can determine how psychometric properties compare across existing measures, some of which include terminology that may be increasingly outdated.

Third, although people-first language is becoming increasingly adopted among researchers and medical professionals in the obesity field, only one study to date has assessed and compared patient preferences for this language. Initial findings suggest that individuals seeking bariatric surgery find people-first language to be more desirable and preferable than identity-first alternatives.⁵¹ However, research is needed to assess perceptions of people-first language in diverse populations and to compare preferences for people-first language to a broader range of weight-related terminology. In addition to examining these research questions among people seeking behavioural weight loss approaches or more intensive obesity treatment, it will be important to include samples of people of different ages, racial/ethnic backgrounds, gender, sexual orientation and members of size acceptance groups, who have been largely neglected in research examining weight-related terminology.

Fourth, existing research to date has also been limited in assessment of language preferences across different contexts. Most studies reviewed (24 of 33 studies) focused on preferences for weight-related terminology used in clinical/medical settings by healthcare providers. While several studies have examined adolescents' preferences for weight-related terminology from family members,^{53,54} the predominant focus of research has been on patient-provider communication. This evidence is certainly important to inform efforts that can help reduce weight stigma in the healthcare setting, but it is possible that people's preferences for language may vary across different contexts. For example, people may be comfortable referring to their own body weight with a particular term when engaging in conversations with

family members or friends but may not feel comfortable if a healthcare provider used that same term to refer to their body weight. Similarly, people's personal preferences for weight-related terminology may not feasibly translate for use in broader-level messaging targeting large populations in public health messaging or media campaigns. Thus, an important avenue for future research is to identify weight-related language preferences across diverse contexts, which can help inform efforts to promote more sensitive and respectful dialogue in family and social settings, the workplace, the medical setting and the media.

Fifth, despite considerable research attention in the reviewed studies to preferences for weight-related terminology used by healthcare providers, it remains largely unknown what impact the use of weight-related terminology by providers has on patient care, patient behaviours or treatment-related outcomes. For example, while there has been broad encouragement of the use of people-first language in the medical and obesity fields, it is not clear whether the use of people-first language improves patient care or outcomes compared with other weight-related terminology. This is an important priority for future research and can help determine whether, and for whom, weight-related terminology influences patient perceptions of quality of care, healthcare utilization, psychological wellbeing and health behaviour change. Similarly, it will be informative for future work to evaluate whether the use of different weight-related terms influences people's attitudes, intentions and behaviours in the context of weight management.

Finally, the literature assessing weight-related language preferences has largely relied on the use of self-report measures in cross-sectional study designs. While this is appropriate methodology for assessing individual perceptions and attitudes about weight-related terminology, there is a clear need for more studies using experimental and observational methods, which can address unanswered questions about how people react and respond to different words or phrases used to describe their weight, and shed light on what words or phrases are actually being used to talk about weight in interpersonal interactions and across different settings. Furthermore, longitudinal research will be important to determine the nature of preferences for weight terminology over time, and whether terminology used in communication about weight has long-term implications for self-perceptions or perceptions of others.

4.2 | Implications for clinicians and researchers

Findings of this systematic review align with sentiments acknowledged by other scholars in the field that there is no “simple answer” for what term or phrase should be used to refer to higher body weight.¹⁷ Existing research has not yet identified a single term or phrase that is universally accepted or embraced across diverse populations and settings. Moreover, existing research has not sufficiently examined weight-related language preferences in diverse populations. Thus, findings from the reviewed evidence suggest the

importance of acknowledging individual variation of language preferences, and respecting diverse preferences when communicating with people with about their weight. For healthcare providers, this means avoiding assumptions about which terminology is “best” to use in patient-provider interactions, and instead asking each patient what language or terminology he/she feels most comfortable using in discussions about weight-related health. For example, providers can initiate a conversation with neutral terminology by asking, “Could we talk about your weight today?,” followed by an acknowledgment that people have different preferences when it comes to the words we use to talk about weight, and then asking a patient what words he/she would feel most comfortable using during the conversation.⁵² This approach may facilitate a productive dialogue about weight-related health on both sides of the provider-patient interaction, by empowering patients to decide what language they personally identify with, and offering a way for providers to initiate dialogue about weight in way that is respectful and avoids unintentional use of stigmatizing language.

Findings of this review also have implications for researchers, as the language used to describe body weight in studies and with research participants can affect their experiences and responses, as well as researchers' interpretations of their study results.^{59,72} While the presence or absence of words like “obesity” or “fat” or “weight” may not, in and of itself, inherently prevent weight stigma from contributing to the research process,⁷² it is important to consider the power of language used in research studies, recognizing that weight-related terminology present in research measures or materials may influence participant responses and study outcomes. Collectively, this underscores the need carefully consider which terminology is most appropriate to use for specific research questions.⁵⁹

5 | CONCLUSION

In response to increasing attention and calls for efforts to use sensitive and non-stigmatizing language in communication about body weight and/or obesity, this systematic review offers the first synthesis of the research literature examining people's preferences for weight-related terminology and language. Findings suggest that neutral terminology (eg, “weight” or “unhealthy weight”) is consistently preferred, whereas words like “obese” and “fat” are viewed to be the least acceptable terms across study samples, particularly in the context of patient-provider conversations about weight. However, individual variation in language preferences is evident across demographic and other characteristics, and caution is warranted in interpreting language preferences for different racial/ethnic groups and across gender given insufficient studies comparing differences in these groups and/or inconsistent findings. As there is no single term or phrase that is universally acceptable across study samples, these findings suggest that it may be appropriate to default to the use of neutral terminology when communicating about weight, but that one should avoid making assumptions about what terminology is

“best”, and instead, acknowledge and respect individual differences in how people prefer to refer to their weight. Future research needs to address the lack of diversity limiting the generalizability of current literature, in terms of both sample demographic characteristics and with respect to diversity of terminology assessed in measurement. Research should also prioritize studies that assess the effects of weight-related terminology on patient outcomes related to health care and health behaviours.

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CONFLICT OF INTEREST

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REFERENCES

1. Thompson JK, Heinberg LJ, Altabe M, Tantleff-Dunn S. *Exacting beauty: theory, assessment, and treatment of body image disturbance*. Washington, DC: American Psychological Association; 1999.
2. Swami V. Cultural influences on body size ideals. *Europ Psychol*. 2015; 20:44-51.
3. Watts KJ, Cranney J. Automatic evaluation of body-related words among young women: an experimental study. *BMC Public Health*. 2010;10:308. <http://www.biomedcentral.com/1471-2458/10/308>
4. Charlesworth TES, Banaji MR. Patterns of implicit and explicit attitudes: long-term change and stability from 2007 to 2016. *Psychol Sci*. 2019;30(2):174-192.
5. Sabin JA, Marini M, Nosek BA. Implicit and explicit anti-fat bias among a large sample of medical doctors by BMI, Race/Ethnicity and Gender. *PLoS ONE*. 2012;7(11):e48448. <https://doi.org/10.1371/journal.pone.0048448>. Epub 2012 Nov 7.
6. Brewis A, SturtzSreetharan C, Wutich A. Obesity stigma as a globalizing health challenge. *Global Health*. 2018 Feb 13;14(1):20. <https://doi.org/10.1186/s12992-018-0337-x>
7. Puhl RM, Heuer CA. The stigma of obesity: a review and update. *Obesity*. 2009;17(5):941-964.
8. Spahlholz J, Baer N, König HH, Riedel-heller SG, Luck-Sikorski C. Obesity and discrimination – a systematic review and meta-analysis of observational studies. *Obes Rev*. 2016;17(1):43-55.
9. Papadopoulos S, Brennan L. Correlates of weight stigma in adults with overweight and obesity: a systematic literature review. *Obesity*. 2015; 23(9):1743-1760.
10. Wu Y, Berry DC. Impact of weight stigma on physiological and psychological health outcomes for overweight and obese adults: a systematic review. *J Adv Nurs*. 2017;74:1030-1042.
11. Sutin AR, Terracciano A. Perceived weight discrimination and obesity. *PLoS ONE*. 2013;8(7):e70048. <https://doi.org/10.1371/journal.pone.0070048>
12. Phelan SM, Burgess DJ, Yeazel MW, Hellersteadt WL, Griffin JM, van Ryn M. Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obes Rev*. 2015;16(4):319-326.
13. Mensinger JL, Tylka TL, Calamari ME. Mechanisms underlying weight status and healthcare avoidance in women: a study of weight stigma,

- body-related shame and guilt, and healthcare stress. *Body Image*. 2018;25:139-147.
14. Hayward LE, Neang S, Ma S, Vartanian LR. Discussing weight with patients with overweight: supportive (not stigmatizing) conversations increase compliance intentions and health motivation. *Stigma and Health*. 2019. <https://doi.org/10.1037/sah0000173>, <https://psycnet.apa.org/record/2019-24888-001>
 15. Puhl R, Peterson J, Luedicke J. Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *Int J Obes*. 2013;37(4):612-619.
 16. Sogg S, Grupski A, Dixon JB. Bad words: why language counts in our work with bariatric patients. *Surg Obes Relat Dis*. 2018;14(5):682-692.
 17. Meadows A, Danielsdottir S. What's in a word? On weight stigma and terminology. *Front Psychol*. 2016;7:1527. <https://doi.org/10.3389/fpsyg.2016.01527>, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5051141/>
 18. Stanford FC, Kyle TK. Respectful Language and Care in Childhood Obesity. *JAMA Pediatr*. 2018;172(11):1001-1002. <https://doi.org/10.1001/jamapediatrics.2018.1912>
 19. Pont SJ, Puhl R, Cook SR, Slusser W. Stigma experienced by children and adolescents with obesity. *Pediatrics* 2017;140(6):e20173034. <https://doi.org/10.1542/peds.2017-3034>
 20. American Medical Association. Person-First Language for Obesity H 440.821. <https://policysearch.ama-assn.org/policyfinder/detail/obesity?uri=%2FAMADoc%2FHOD.xml-H-440.821.xml>. Published 2017. Accessed November 20, 2019.
 21. National Academies of Sciences, Engineering and Medicine. *Advancing effective obesity communications: Proceedings of a workshop from the Roundtable on Obesity Solutions*. Washington, DC: The National Academies Press; 2019.
 22. De Brun A, McCarthy M, McKenzie K, McGloin A. Weight stigma and narrative resistance evident in online discussions of obesity. *Appetite*. 2014;72:73-81.
 23. Lozano-Sufrategui L, Sparkes AC, McKenna J. Weighty: NICE's not-so-nice words. *Front Psychol*. 2016;7:1919. <https://doi.org/10.3389/fpsyg.2016.01919>
 24. Puhl RM, Peterson JL, Luedicke J. Parental perceptions of weight terminology that providers use with youth. *Pediatrics*. 2011;128:e786-e793. DOI. <https://doi.org/10.1542/peds.2010-3841>
 25. Volger S, Vetter ML, Dougherty M, et al. Patients' preferred terms for describing their excess weight: discussing obesity in clinical practice. *Obesity*. 2012;20(1):147-150.
 26. Saguy AC. *What's wrong with fat?* New York, NY: Oxford University Press; 2013.
 27. Martin D. Obese? Just call them fat: plain-speaking doctors will jolt people into losing weight, says minister. *Daily Mail*. November 29, 2010. <http://www.dailymail.co.uk/news/article-1298394/Call-overweight-people-fat-instead-obese-says-health-minister.html>. Accessed November 20, 2019.
 28. Donnelly L. Calling people obese harms them, say they are 'living with obesity' psychologists advise. *The Telegraph*. September 29, 2019. <https://www.telegraph.co.uk/news/2019/09/23/calling-people-obese-harms-say-living-obesity-psychologists/> Accessed November 15, 2019.
 29. Klass P. How not to talk to a child who is overweight. *The New York Times*. November 20, 2017. <https://www.nytimes.com/2017/11/20/well/family/fat-shaming-weight-stigma-bullying-childhood-obesity.html> Accessed November 15 2019.
 30. Pollack A. AMA recognizes obesity as a disease. *The New York Times*. June 8, 2013. <https://www.nytimes.com/2013/06/19/business/ama-recognizes-obesity-as-a-disease.html> Accessed November 15, 2019.
 31. Dunn DS, Andrews EE. Person-first and identity-first language: developing psychologists' cultural competence using disability language. *Am Psychol*. 2015;70(3):255-264.
 32. Blaska J. The power of language: speak and write using 'person first'. In: Nagler M, ed. *Perspectives on Disability*. 2nd ed. Palo Alto, CA: Health Markets Research; 1993:25-32.
 33. Dickinson JK, Guzman SJ, Maryniuk MD, et al. The use of language in diabetes care and education. *Diabetes Educ*. 2017;43(6):551-564.
 34. Ravussin E, Ryan D. Response to "The need for people-first language in our Obesity journal". *Obesity*. 2015;23(5):918. <https://doi.org/10.1002/oby.21100>
 35. Obesity Week 2019 Abstract Submission Guidelines. <https://obesityweek.com/app/uploads/2019/04/2019.03.26-OW19-Abstract-Guidelines-FINAL.pdf> Accessed November 20, 2019.
 36. Pausé C. Changing the terminology to 'people with obesity' won't reduce stigma against fat people. *The Conversation*. October 14, 2019. <https://theconversation.com/changing-the-terminology-to-people-with-obesity-wont-reduce-stigma-against-fat-people-124266> Accessed November 20, 2019.
 37. Dutton GR, Tan F, Perri MG, et al. What words should we use when discussing excess weight? *J Am Board Fam Med*. 2010;23(5):606-613.
 38. Wadden TA, Didie E. What's in a name? Patients' preferred terms for describing obesity. *Obes Res*. 2003;11(9):1140-1146.
 39. Liberati A, Altman DG, Tetzlaff J, et al. The PRISMA Statement for reporting systematic reviews and meta-analyses for studies that evaluate health care interventions: explanation and evaluation. *PLoS ONE*. 2009;6:e1000100.
 40. Sterne JAC, Hernan MA, Reeves BC, et al. ROBINS-I: a tool for assessing risk of bias in non-randomized studies of interventions. *BMJ*. 2016;355:i4919.
 41. National Heart, Lung and Blood Institute. Quality assessment tool for observational cohort and cross-sectional studies. <https://www.nhlbi.nih.gov/health-topics/study-quality-assessment-tools> Accessed November 20, 2019.
 42. Brochu PM, Esses VM. What's in a name? The effects of the labels 'fat' versus 'overweight' on weight bias. *J Appl Soc Psychol*. 2011;41:1981-2008.
 43. Eneli IU, Kalogiros ID, McDonald KA, Toden D. Parental preferences on addressing weight-related issues in children. *Clin Pediatr*. 2007;46:612-618.
 44. Essayli JH, Murakami JM, Wilson RE, Latner JD. The impact of weight labels on body image, internalized weight stigma, affect, perceived health, and intended weight loss behaviors in normal-weight and overweight college women. *Am J Health Promot*. 2017;31:484-490.
 45. Glenister K, Opie CA, Wright J. Preferred language regarding overweight and obesity in general practice: a survey of predominantly Australian adults. *Austral J Primary Health*. 2018;24:391-397.
 46. Greenleaf C, Starks M, Gomez L, Chambliss H, Martin S. Weight-related words associated with figure silhouettes. *Body Image*. 2004;1(4):373-384.
 47. Hopkins CM, Bennett GG. Weight-related terms differentially affect self-efficacy and perception of obesity. *Obesity*. 2018;26(9):1405-1411.
 48. Knierim SD, Newcomer S, Castillo A, et al. Latino parents' perception of pediatric weight counseling terms. *Acad Pediatr*. 2018;18:342-353.
 49. Koball AM, Mueller PS, Craner J, et al. Crucial conversations about weight management with healthcare providers: patients' perspectives and experiences. *Eat Weight Disord*. 2018;23(1):87-94.
 50. Lydecker JA, Galbraith K, Ivezaj V, et al. Words will never hurt me? Preferred terms for describing obesity and binge eating. *Int J Clin Pract*. 2016;70(8):682-690.
 51. Pearl RL, Walton K, Allison KC, Tronieri JS, Wadden TA. Preference for People-First Language Among Patients Seeking Bariatric Surgery. *JAMA Surg*. 2018;153(12):1160-1162.

52. Puhl RM, Himmelstein MS. Adolescent preferences for weight terminology used by health care providers. *Pediatr Obes.* 2018;13(9): 533-540.
53. Puhl RM, Himmelstein MS. A word to the wise: adolescent reactions to parental communication about weight. *Child Obes.* 2018;14(5): 291-301.
54. Puhl RM, Himmelstein MS, Armstrong S, Kingsfield E. Weighing words: adolescent preferences and reactions to language about body weight. *Int J Obes (Lond).* 2017;41(7):1062-1065.
55. Roberto CA, Galbraith K, Lydecker JA, et al. Preferred descriptions for loss of control while eating and weight among patients with binge eating disorder. *Psychiatry Res.* 2016;246:548-553.
56. Smith CA, Schmoll K, Konik J, Oberlander S. Carrying weight for the world: influence of weight descriptors on judgments of large-sized women. *J Appl Soc Psychol.* 2007;37:989-1006.
57. Swift JA, Choi E, Puhl RM, Glazebrook C. Talking about obesity with clients: preferred terms and communication styles of UK pre-registration dietitians, doctors, and nurses. *Patient Educ Couns.* 2013; 91:186-191.
58. Taylor A, Ogen J. Avoiding the term 'obesity': an experimental study of the impact of doctors' language on patients' beliefs. *Patient Educ Couns.* 2009;76(2):260-264.
59. Vartanian LR. 'Obese people' vs 'fat people': impact of group label on weight bias. *Eat Weight Disord.* 2010;15(3):e195-e198.
60. Bolling C, Crosby L, Boles R, Stark L. How pediatricians can improve diet and activity for overweight preschoolers: a qualitative study of personal attitudes. *Acad Pediatr.* 2009;9(3): 172-178.
61. Ellis S, Rosenblum K, Miller A, Peterson KE, Lumeng JC. Meaning of the terms "overweight" and "obese" among low-income women. *J Nutr Educ Behav.* 2014;46(4):299-303.
62. Gray CM, Hunt K, Lorimer K, Anderson AS, Benzeval M, Wyke S. Words matter: a qualitative investigation of which weight status terms are acceptable and motivate weight loss when used by health professionals. *BMC Public Health.* 2011;11:513. <https://doi.org/10.1186/1471-2458-11-513>
63. Guo JD, Vann WF, Lee JY, Roberts MW. Identification of preferred healthy weight counseling approaches for children in the dental setting. *J Clin Pediatr Dentistry.* 2018;42:414-421.
64. Knieriem SD, Kulchak A, Haemer M, et al. Latino parents' perceptions of weight terminology used in pediatric weight counseling. *Acad Pediatr.* 2015;15:210-217.
65. Sonnevile KR, Mulpuri L, Khreizat I, Nichols LP, Plegue MA, Chang T. Youth preferences for weight-related conversations. *Health Commun.* 2019;1-6. <https://doi.org/10.1080/10410236.2019.1631566>
66. Thomas SL, Hyde J, Karunaratne A, Herbert D, Komesaroff PA. Being 'fat' in today's world: a qualitative study of the lived experiences of people with obesity in Australia. *Health Expect.* 2008;11(4): 321-330.
67. Turer CB, Montano S, Lin H, Hoang K, Flores G. Pediatricians' communication about weight with overweight Latino children and their parents. *Pediatr Dent.* 2014;134:892-899.
68. Uy MJA, Pereira MA, Berge JM, Loth KA. How should we approach and discuss children's weight with parents? A qualitative analysis of recommendations from parents of preschool-aged children to physicians. *Clin Pediatr.* 2019;58:226-237.
69. Ward SH, Gray AM, Paranjape A. African Americans' perceptions of physician attempts to address obesity in the primary care setting. *J Gen Intern Med.* 2009;24(5):579-584.
70. Ristovski-Slijepcevic S, Bell K, Chapman GW, Beagan BL. Being 'thick' indicates you are eating, you are healthy and you have an attractive body shape: perspectives on fatness and food choice amongst Black and White men and women in Canada. *Health Soc Rev.* 2010;19: 317-329.
71. Antin TMJ, Hunt G. Embodying both stigma and satisfaction: an interview study of African American women. *Crit Public Health.* 2013;23: 17-31.
72. Warin MJ, Gunson JS. The weight of the world: knowing silences in obesity research. *Qual Health Res.* 2013;23(12):1686-1696.

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