

Preferences and emotional response to weight-related terminology used by healthcare professionals to describe body weight in people living with overweight and obesity

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Summary

Previous studies have explored people's perceptions of weight-related terminology; however, to date, limited data has explored the emotional response to weight-related terms used by healthcare professionals (HCPs). This study explored the preferences and emotional responses of terms used by HCPs to describe body weight and of parents to describe their children's weight. A total of 2911 adults completed an online cross-sectional survey, with 1693 living with overweight or obesity (mean age 49.2 years [SD 12.5], female (96%), median body mass index (BMI) 31.4 kg/m² [28.1, 36.5]). The survey explored preferences of 22 weight-related terms using a 5-point Likert scale and their emotional response to these terms (using 7-core emotions). Parents also indicated preferences and emotional responses to terms used to describe their children's weight. Respondents completed the modified weight bias internalization scale to examine how this may impacted preferences. 'Weight', 'unhealthy weight' and 'overweight' were the three preferred terms, while 'super obese', 'chubby', and 'extra-large' were least preferred in people living with overweight and obesity. Parents preferred 'weight', 'unhealthy weight' and 'body mass index', and least preferred 'fat', 'extra-large' and 'extremely obese' when describing their children's weight. All terms elicited a negative emotional response. The most commonly emotion was sadness for terms to describe adult's bodyweight, and anger for terms used to describe children's weight. All BMI categories reported disgust with terms incorporating 'obese'. Our results offer novel insight into the preferred terminology and emotional responses to terminology used by HCPs for both adults and parents to describe their children's weight.

KEYWORDS

obesity, weight-related terminology, weight stigma, healthcare professionals

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1 | INTRODUCTION

The way healthcare professionals (HCPs) communicate with people living with obesity (PLWO) impacts engagement, motivation and the patient-practitioner relationship.¹⁻³ Experiencing weight stigma is associated with reduced motivation to engage in health-related behaviours and lower wellbeing.⁴ The importance of weight-related language has been highlighted, as well as the implications of using stigmatizing disrespectful communication, with evidence showing stigmatizing communication about body weight can have a negative impact on PLWO.^{3,5} International and national guidelines recommend HCPs use non-stigmatizing language when discussing body weight with PLWO, with calls to adopt people-first language.⁶⁻⁸ Indeed, there have been calls to end weight stigma in healthcare, with language used by HCPs identified as a key area for improvement.⁹ Despite this, ambiguity remains regarding acceptable weight-related language, with words such as “obesity” and “fat” still causing debate and disagreement as to their appropriateness and there is a lack of clarity on which terms are more accepted.

A systematic review of weight-related terminology studies¹⁰ reported that ‘weight’ or “unhealthy weight” were preferred and “obese” and “fat” were least accepted, particularly in conversations with HCPs. Studies in parental preferences of weight-related terms to describe their child's weight have shown similar results.^{5,11-13} The terms ‘weight’, unhealthy weight and “high body mass index (BMI)” were preferred, while “fat” and “obese” were viewed as the least accepted.¹¹⁻¹³ Importantly, to date, there has been a paucity of research that has examined emotional responses to the use of weight-related terminology by HCPs, particularly in adults. Of the evidence that is available, this has primarily focussed on parents' thoughts about weight-related terminology towards their children, with “obese”, “chubby”, “extremely obese” and “fat” being reported to be stigmatizing, offensive, blaming and un-motivating.^{11,13} Other research has also found that parents report feelings of fear, frustration, disbelief when these terms are used towards their child.^{14,15} This study therefore, aimed to explore the preferences and emotional responses to weight-related terms used by HCPs.

2 | METHODS

An online cross-sectional survey was distributed through various methods including social media advertisement, patient obesity organizations, a Tier 2 weight management provider and email distribution lists. Eligibility criteria were people aged 18 to 80 years old. Participants also indicated if they had children aged <18 years.

To assess preferences of weight-related terminology participants were asked “Which words would you most want your healthcare practitioner to use to talk about your weight?”. Participants rated words using a 5-point Likert scale (1 = “strongly dislike” to 5 = “strongly like”). The 22 words were from previous research.⁵

Following this, emotional response to the 22 terms were examined by asked “If your healthcare practitioner used any of the

What is already known about this subject

- The way healthcare professionals (HCPs) communicate with people living with obesity (PLWO) impacts engagement, motivation and the patient-practitioner relationship.
- Previous data reported that “weight” or “unhealthy weight” are possible preferred terms and “obese” and “fat” disliked. Despite this, ambiguity remains regarding preferred terms.
- Although studies have looked at parents' emotional response to HCPs using weight-related terms to describe their children's weight, no study to date has explored adult's emotional response to HCPs using weight-related terms to describe their weight.

What this study adds

- “Weight”, “unhealthy weight” and “overweight” were the three preferred terms, while “super obese”, “chubby”, and “extra-large” were least preferred terms for HCPs to use when referring to body weight in people living with overweight and obesity
- Parents living with overweight and obesity preferred ‘weight’, “unhealthy weight” and “body mass index”, and least preferred “fat”, “extra-large” and “extremely obese” for HCPs to use when discussing their children's body weight.
- Irrespective of BMI category, ‘weight’ and ‘unhealthy weight’ were consistently preferred terms and “extra-large” was least preferred by both adults and parents to describe their own and their children's weight.
- Weight-related terms used by HCPs to discuss body weight generally elicited a negative emotional response, with sadness the most common for adults when terms were directed towards their own weight, and when terms were directed towards children, parents most commonly reported anger. In response to the terms “morbidly obese”, extremely obese’ and “super obese” participants of all BMI categories reported feeling disgust.

following words to talk about your weight, how does it make you feel?”. These 22 terms were compiled from the previous weight-related terminology literature^{8,10,16} and from terms used in clinical practice, government guidelines and popular culture, these terms were verified with PLWO prior to commencing the survey. Participants identified which of the seven core emotions they felt: “happiness”, “contempt”, “anger”, “surprise”, “fear”, “sadness” and “disgust”,^{17,18} along with “not sure” and “I don't mind”. Parents answered the same questions with reference to their children's weight.

TABLE 1 Baseline characteristics

	Total	Parents
Characteristic	n = 1693	n = 418
Age, years, mean (SD)	49.2 (12.5)	41.9 (8.4)
Gender, (n, [%])		
Male	61 (3.6)	8 (1.9)
Female	1626 (96.0)	409 (97.8)
Prefer not to say	6 (0.4)	
Ethnicity (n, [%])		
White-British, Irish, other	1650 (97.6)	403 (96.4)
Mixed race	20 (1.2)	7 (1.7)
Black	9 (0.5)	5 (1.2)
Asian	7 (0.4)	3 (0.7)
Other ethnic groups	5 (0.3)	0 (0.0)
Weight (kg), median (IQR)	86.4 (76.0, 100.0)	87.5 (76.8, 100.0)
BMI (kg/m ²), median (IQR)	31.4 (28.1, 36.5)	31.3 (28.2, 36.7)
Country of residence (n, [%])		
England	1330 (78.6)	326 (78.6)
Scotland	122 (7.2)	25 (6.0)
Wales	71 (4.2)	18 (4.3)
Northern Ireland	24 (1.4)	5 (1.2)
Ireland	31 (1.8)	11 (2.6)
Isle of Man	1 (0.1)	1 (0.2)
Jersey	1 (0.1)	0 (0.0)
Denmark	1 (0.1)	0 (0.0)
Switzerland	1 (0.1)	1 (0.2)
USA	35 (2.1)	11 (2.6)
Canada	19 (1.1)	3 (0.7)
Brazil	1 (0.1)	1 (0.2)
Argentina	1 (0.1)	0 (0.0)
Australia	16 (0.9)	7 (1.7)
Unknown	28 (1.7)	6 (1.4)
Occupation (n, [%])		
Education	255 (15.1)	92 (22.0)
Healthcare	336 (19.8)	92 (22.0)
Business	206 (12.2)	52 (12.4)
Law	35 (2.1)	6 (1.4)
Management	135 (8.0)	29 (6.9)
Science & Engineering	43 (2.5)	11 (2.6)
Technology	25 (1.5)	5 (1.2)
Other	532 (31.4)	93 (22.2)
Unemployment	126 (7.4)	38 (9.1)
Income (n, [%])		
£0-9999	346 (20.4)	87 (20.8)
£10 000-19 999	439 (25.9)	111 (26.6)
£20 000-29 999	378 (22.3)	92 (19.6)
£30 000-39 999	251 (14.8)	54 (12.9)
£40 000-49 999	130 (7.7)	41 (9.8)

(Continues)

TABLE 1 (Continued)

	Total	Parents
£50 000+	149 (8.8)	43 (10.3)
Living with obesity BMI ≥ 30 kg/m ² (n, [%])	1011 (59.7)	248 (59.3)
WBIS-M, mean (SD)	4.4 (1.2)	4.3 (1.3)

Abbreviations: BMI, body mass index; £, pounds; kg, kilograms; n, number of participants; SD, standard deviation; WBIS-M, modified weight bias internalization scale.

Participants also completed the modified version of the Weight Bias Internalization Scale (WBIS-M).¹⁹ The WBIS-M consists of 10 items using a 7-point Likert scale (1 = “strongly disagree” to 7 = “strongly agree”) and a mean score was calculated. The WBIS-M allows for people of all body weights to complete the measure, and this, was chosen for this study. Demographic, anthropometric (self-reported height and weight), occupation and income data were gathered. Ethical approval was received from Leeds Beckett University Ethics Board (REF:59680).

2.1 | Statistical analysis

Demographic data were summarized using mean (SD) for normally distributed continuous variables. Categorical data were described with counts (percentages). Statistical analyses were performed using SPSS Version 24.0, with statistical significance defined as a *P*-value < .05. The Likert data for the weight-related terms were transformed to a scale from +2 to -2, with +2 = strongly liked, -2 = strongly dislike and 0 = neutral. Ordinal logistic regression alongside generalized linear models were used to analyse the impact of WBIS-M, BMI and age as continuous variables on weight-related terminology, reported as odd ratios (OR), (95% confidence intervals [CI]). The three most and least preferred terms for participants and participants with children were further analysed.

3 | RESULTS

A total of 2915 adults completed the survey between 28 April 2019 and 23 June 2019, with 2911 participant meeting eligibility criteria. For the main analysis a further 330 participants were excluded due to having a BMI < 25 kg/m², leaving 1693 participants people living with overweight and obesity. The baseline characteristics are summarized in Table 1.

3.1 | Preferred terminology

The three preferred terms for HCPs to use were “weight” (0.8 [1.3]), “unhealthy weight” (0.7 [1.4]) and ‘overweight’ (0.5 [1.3]), while the least preferred terms were “super obese” (-1.2 [1.4]), “chubby” (-1.1 [1.2]), and “extra-large” (-1.0 [1.3]) (Table 2). The terms that parents preferred for HCPs to refer to their children's weight were ‘weight’ (0.5 [1.4]), ‘unhealthy weight’ (0.3 [1.5]) and

TABLE 2 Preferred weight-related terminology for HCPs to use for adults and parents to refer to their children's weight in people living with overweight and obesity

Adult	
Weight-related terminology (n = 1693)	Mean (SD)
Overweight	0.55 (1.31) ³
Obese	-0.43 (1.45)
Higher weight	0.21 (1.36)
Weight problem	0.22 (1.41)
Unhealthy weight	0.70 (1.37) ²
Weight	0.80 (1.27) ¹
Heavy	-0.43 (1.35)
Chubby	-1.09 (1.26) ⁵
Fat	-0.89 (1.37)
Extremely obese	-0.92 (1.45)
Large	-0.41 (1.32)
Plus size	-0.27 (1.41)
Curvy	-0.34 (1.41)
Big	-0.55 (1.32)
BMI	0.33 (1.41)
High BMI	0.39 (1.44)
Morbidly obese	-0.85 (1.47)
Very overweight	-0.21 (1.44)
Extra large	-0.94 (1.31) ⁶
Obesity	-0.32 (1.43)
Super obese	-1.17 (1.37) ⁴
Excess weight	0.45 (1.31)
Parents	
Weight-related terminology (n = 418)	Mean (SD)
Overweight	-0.18 (1.45)
Obese	-1.08 (1.35)
Higher weight	-0.07 (1.44)
Weight problem	-0.37 (1.50)
Unhealthy weight	0.24 (1.49) ⁸
Weight	0.49 (1.38) ⁷
Heavy	-0.98 (1.26)
Chubby	-1.26 (1.15)
Fat	-1.51 (1.04) ¹⁰
Extremely obese	-1.31 (1.27) ¹²
Large	-1.01 (1.22)
Plus size	-1.29 (1.15)
Curvy	-1.29 (1.15)
Big	-1.06 (1.24)
BMI	0.04 (1.52) ⁹
High BMI	-0.13 (1.52)
Morbidly obese	-1.30 (1.29)
Very overweight	-0.91 (1.39)
Extra large	-1.41 (1.04) ¹¹
Obesity	-1.01 (1.35)

TABLE 2 (Continued)

Parents	
Super obese	-
Excess weight	-

Note: n, number of participants. ¹⁻³ Preferred terms adults; ⁴⁻⁶ Least liked terms adults; ⁷⁻⁹ Preferred terms parents for children; ¹⁰⁻¹² Least liked terms parents for children.

Abbreviations: BMI, body mass index; HCPs, healthcare professionals.

“body mass index” (0.2 [1.5]), with the least preferred terms being “fat” (-1.5 [1.1]), ‘extra-large’ (-1.5 [1.0]) and “extremely obese” (-1.3 [1.3]) (Table 2).

When preferred and least preferred terms were compared across all BMI categories (healthy weight, overweight, obesity) for both adults and parent to describe their children's weight, “weight” and “unhealthy weight” were consistently preferred terms (Supplementary Table 1). “BMI” was one of the preferred terms reported by people within the healthy weight range, were as “overweight” was preferred by people with overweight or obesity. The least preferred terms remained the same (“super obese”, “chubby”, and “extra-large”) for adults. Parents of all BMI categories preferred the term 'BMI' when HCPs described the children's weight, they also reported “fat” and “extra-large” as their least preferred terms. Differences were observed based on parent's weight status, where “curvy”, “overweight” and “extremely obese” were reported least preferred terms by parent within the health weight, overweight and obesity weight range, respectively.

3.2 | Emotional response

The most common emotional response across all terms was sadness. Contempt, anger and disgust were the most frequently reported emotional responses if HCPs used the terms “chubby”, “fat” and “super obese” respectively to refer to participant's body weight (Table 3). The most common emotional response across all terms for parents when HCPs used the terms to describe their children's body weight was anger. For parents, contempt, anger and disgust were the most frequently reported emotional responses if HCPs used the terms “high BMI”, “fat” and “super obese”, respectively. “Weight” elicited the least feelings of anger and disgust amongst participants regarding their own body weight, and anger, sadness and disgust from parents about their children's body weight (Table 4).

When emotional responses to weight-related terminology were compared across all BMI categories for adults, the most common response remained sadness (Supplementary Tables 2-7). In response to the terms “morbidly obese”, extremely obese' and “super obese” participants of all BMI categories reported feeling disgust. For parents to describe their children's weight, people with overweight and obesity reported the most common emotional response as anger, while people within the healthy weight range reported sadness. 'BMI' in people with overweight and obesity reported fear when this term was used to describe their child's weight.

3.3 | Impact of WBIS, age and BMI on weight-related terminology

WBIS-M and BMI were found to have a weak, positive correlation ($r = 0.17$, $P < .0001$), with every one-point increase in BMI associated with a 0.03-point increase in WBIS-M (95% CI 0.02-0.04, $P < .0001$).

3.4 | Most preferred terms

Participants who reported strongly liking “weight” were less likely to be older with OR (95% CI) being 0.99 (0.98-1.00, $P = .010$) per additional year in age. Participants strongly liking ‘overweight’ were more likely to be older (OR 1.01 per additional year in age [1.00-1.01], $P = .014$) and

have higher WBIS-M score with an OR 1.09 (1.01-1.17, $P = .026$) per additional point in WBIS-M. Participants with a higher BMI were less likely to strongly like the term “unhealthy weight” (OR 0.98 per additional point of BMI [0.97-1.01] $P = .003$), while a higher WBIS-M score was associated with greater likelihood of liking “unhealthy weight” (OR 1.15 [1.07-1.24] $P < .0001$).

3.5 | Least preferred terms

Participants who reported strongly disliking “extra-large”, “super obese” or “chubby” were less likely to be older with OR (95% CI) being 0.97 (0.96-0.97, $P < .0001$); 0.99 (0.98-1.00, $P = .028$) and 0.98 (0.97-0.99, $P < .0001$) per additional year in age, respectively.

TABLE 3 Weight-related terminology and associated emotions for adults living within overweight and obesity

Weight terminology	Emotions (n, [%])									
	N	Happiness	Contempt	Anger	Surprise	Fear	Sadness	Disgust	Not sure	I do not mind
Overweight	1670	35 (2.1)	59 (3.5)	69 (4.1)	38 (2.3)	74 (4.4)	432 (25.9)	103 (6.2)	99 (5.9)	761 (45.6)
Obese	1665	10 (0.6)	68 (4.1)	184 (11.1)	49 (2.9)	184 (11.1)	444 (26.7)	324 (19.5)	99 (5.9)	303 (18.2)
Higher weight	1666	35 (2.1)	63 (3.8)	54 (3.2)	83 (5.0)	88 (5.3)	317 (19.0)	84 (5.0)	259 (15.5)	683 (41.0)
Weight problem	1669	45 (2.7)	78 (4.7)	111 (6.7)	43 (2.6)	121 (7.2)	415 (24.9)	87 (5.2)	123 (7.4)	646 (38.7)
Unhealthy weight	1670	44 (2.6)	53 (3.2)	72 (4.3)	45 (2.7)	238 (14.3)	363 (21.7)	85 (5.1)	85 (5.1)	685 (41.0)
Weight	1659	68 (4.1)	54 (3.3)	20 (1.2)	30 (1.8)	65 (3.9)	165 (9.9)	34 (2.0)	185 (10.9)	1038 (62.6)
Heavy	1662	8 (0.5)	82 (4.9)	157 (9.4)	97 (5.8)	50 (3.0)	420 (25.3)	159 (19.6)	239 (14.4)	450 (27.1)
Chubby	1666	18 (1.1)	235 (14.1)	363 (21.8)	212 (12.7)	24 (1.4)	255 (15.3)	217 (13.0)	175 (10.5)	167 (10.0)
Fat	1668	18 (1.1)	115 (6.9)	387 (23.2)	113 (6.8)	34 (2.0)	357 (21.4)	361 (21.6)	98 (5.9)	185 (11.1)
Extremely obese	1666	9 (0.5)	83 (5.0)	296 (17.8)	74 (4.4)	267 (16.0)	265 (15.9)	485 (29.1)	63 (3.8)	124 (7.4)
Large	1663	23 (1.4)	92 (5.5)	145 (8.7)	113 (6.8)	42 (2.5)	407 (24.5)	147 (8.8)	244 (14.7)	450 (27.1)
Plus size	1666	37 (2.2)	156 (9.4)	132 (7.9)	177 (10.6)	31 (1.9)	329 (19.7)	124 (7.4)	245 (14.7)	435 (26.1)
Curvy	1667	114 (6.8)	201 (12.1)	129 (7.7)	299 (17.9)	21 (1.3)	126 (7.6)	90 (5.4)	266 (15.7)	421 (25.3)
Big	1660	10 (0.6)	125 (7.5)	194 (11.7)	122 (7.3)	36 (2.2)	401 (24.2)	137 (8.3)	226 (13.6)	409 (24.6)
BMI	1667	58 (3.5)	104 (6.2)	95 (5.7)	25 (1.5)	130 (7.8)	133 (8.0)	42 (2.5)	225 (13.5)	855 (51.3)
High BMI	1664	25 (1.5)	86 (5.2)	100 (6.0)	50 (3.0)	260 (15.6)	226 (13.6)	106 (6.4)	148 (8.9)	663 (39.8)
Morbidly obese	1668	9 (0.5)	71 (4.3)	256 (15.3)	71 (4.3)	384 (22.7)	241 (14.4)	449 (26.9)	52 (3.1)	135 (8.1)
Very overweight	1665	11 (0.6)	60 (3.6)	157 (9.4)	86 (5.2)	153 (9.2)	477 (28.6)	278 (16.7)	109 (6.5)	334 (20.1)
Extra large	1667	6 (0.4)	146 (8.8)	281 (16.9)	135 (8.1)	51 (3.1)	384 (23.0)	288 (17.3)	202 (12.1)	174 (10.4)
Obesity	1656	13 (0.8)	64 (3.9)	168 (10.1)	47 (2.8)	186 (11.2)	370 (22.3)	325 (19.6)	117 (7.1)	366 (22.1)
Super obese	1664	8 (0.5)	102 (6.1)	343 (20.6)	95 (5.7)	236 (14.2)	205 (12.3)	522 (31.4)	72 (4.3)	81 (4.9)
Excess weight	1662	22 (1.3)	74 (4.5)	69 (4.2)	57 (3.4)	95 (5.7)	390 (23.5)	124 (7.5)	141 (8.5)	690 (41.5)

Note: n, number of participants, %, percentages; Bold identifies the most common response, if this was not one of the seven core emotions then the most common emotion is also highlighted; n, number of participants, %, percentages.

Abbreviation: BMI, body mass index.

TABLE 4 Weight-related terminology and associated emotions for parents living within overweight and obesity

Weight terminology	Emotions (n, [%])							I do not mind		
	N	Happiness	Contempt	Anger	Surprise	Fear	Sadness		Disgust	Not sure
Overweight	418	6 (1.4)	14 (3.3)	56 (13.4)	24 (5.7)	48 (11.5)	103 (24.6)	18 (4.3)	34 (8.1)	115 (27.5)
Obese	418	6 (1.4)	11 (2.6)	112 (26.8)	24 (5.7)	60 (14.4)	85 (20.3)	47 (11.2)	22 (5.3)	51 (12.2)
Higher weight	418	7 (1.7)	17 (4.1)	45 (10.8)	34 (8.1)	40 (9.6)	73 (17.5)	20 (4.8)	51 (12.2)	131 (31.3)
Weight problem	418	6 (1.4)	24 (5.7)	68 (16.3)	39 (9.3)	42 (10.0)	83 (19.9)	20 (4.8)	35 (8.4)	101 (24.2)
Unhealthy weight	418	11 (2.6)	14 (3.3)	35 (8.4)	34 (8.1)	63 (15.1)	80 (19.1)	10 (2.4)	25 (6.0)	146 (34.9)
Weight	418	21 (5.0)	22 (5.3)	24 (5.7)	13 (3.1)	22 (5.3)	39 (9.3)	6 (1.4)	56 (13.4)	215 (51.4)
Heavy	418	3 (0.7)	21 (5.0)	102 (24.4)	32 (7.7)	16 (3.8)	89 (21.3)	38 (9.1)	57 (13.6)	60 (14.4)
Chubby	418	1 (0.2)	42 (10.0)	152 (36.4)	30 (7.2)	12 (2.9)	62 (14.8)	51 (12.2)	36 (8.6)	32 (7.7)
Fat	418	3 (0.7)	34 (8.1)	176 (42.1)	22 (5.3)	14 (3.3)	63 (15.1)	69 (16.5)	17 (4.1)	20 (4.8)
Extremely obese	418	3 (0.7)	17 (4.1)	144 (34.4)	20 (4.8)	71 (17.0)	56 (13.4)	70 (16.7)	12 (2.9)	25 (6.0)
Large	418	2 (0.5)	22 (5.3)	105 (25.1)	34 (8.1)	14 (3.3)	91 (21.8)	31 (7.4)	59 (14.1)	60 (14.4)
Plus size	418	4 (1.0)	30 (7.2)	121 (28.9)	47 (11.2)	13 (3.1)	83 (19.9)	46 (11.0)	46 (11.0)	28 (6.7)
Curvy	418	7 (1.7)	48 (11.5)	106 (25.4)	67 (16.0)	8 (1.9)	46 (11.0)	42 (10.0)	60 (14.4)	34 (8.1)
Big	418	3 (0.7)	26 (6.2)	112 (26.8)	43 (10.3)	18 (4.3)	96 (23.0)	24 (5.7)	48 (11.5)	48 (11.5)
BMI	418	15 (3.6)	25 (6.0)	51 (12.2)	23 (5.5)	23 (5.5)	31 (7.4)	6 (1.4)	60 (14.4)	184 (44.0)
High BMI	418	0.0 (0.0)	23 (5.6)	53 (13.0)	27 (6.6)	67 (16.4)	52 (12.7)	21 (5.1)	45 (11.0)	120 (29.4)
Morbidly obese	418	0.0 (0.0)	16 (3.9)	150 (6.1)	20 (4.8)	76 (18.3)	54 (13.0)	61 (14.7)	12 (2.9)	26 (6.3)
Very overweight	418	0.0 (0.0)	16 (3.9)	95 (23.1)	26 (6.3)	63 (15.3)	89 (21.6)	42 (10.2)	26 (6.3)	55 (13.3)
Extra large	418	0.0 (0.0)	32 (7.7)	141 (33.8)	29 (7.0)	25 (6.0)	80 (19.2)	53 (12.7)	38 (9.1)	19 (4.6)
Obesity	418	0.0 (0.0)	11 (2.7)	102 (24.7)	20 (4.8)	63 (15.3)	86 (20.8)	42 (10.2)	27 (6.5)	62 (15.0)
Super obese	418	1 (0.2)	27 (6.5)	144 (34.4)	26 (6.2)	63 (15.1)	43 (10.3)	84 (20.1)	16 (3.8)	14 (3.3)
Excess weight	418	0.0 (0.0)	15 (3.7)	67 (16.4)	20 (4.9)	45 (11.0)	86 (21.0)	17 (4.2)	40 (9.8)	119 (29.1)

Note: n, number of participants, %, percentages; Bold identifies the most common response, if this was not one of the seven core emotions then the most common emotion is also highlighted. Abbreviation: BMI, body mass index.

While participants with higher WBIS-M score were less likely to dislike the term “chubby” (OR 0.98 per additional point of WBIS-M, [0.97-0.99] $P < .0001$).

3.6 | Parents most preferred terms for HCPs to use to refer to their children's weight

Neither WBIS-M, BMI or age predicted the likelihood in parental preferences for the words “weight”, “unhealthy weight” or “BMI” ($P > .05$).

3.7 | Parents least preferred terms for HCPs to use to refer to their children's weight

Participants who reported strongly disliking “fat” and “extra-large” were less likely to be older (OR 0.95 per additional year in age, [0.93-0.98] $P = .001$; OR 0.97 per additional year in age, [0.95-0.99] $P = .014$, respectively). Neither WBIS-M, BMI nor age predicted disliking in parental preferences for the words “extremely obese” ($P > .05$).

4 | DISCUSSION

In line with previous research, this study has shown that the preferred terms for HCPs to use for people living with overweight and obesity were “weight” and “unhealthy weight”,^{1,5,10,20-24} these terms were consistent across all BMI categories. However, the least preferred terms for HCPs to use for adult's body weight, and for parents when describing their children's body weight differed, meaning HCPs working with adults and children should note these subtle nuances. Parents and adults reporting “extra-large” as one of the least preferred terms and should be considered by clothes brands given that these terms are often used to describe clothing sizes.

A novel avenue of this research was exploring the emotional response of weight-related terminology, with findings showing that participants mainly reported negative emotional responses. Across both preferred and least preferred terms emotions of sadness, anger, and disgust was reported, highlighting the need for compassion from HCPs when discussing weight.

There was a substantial number of terms that participants did not mind HCPs using. These terms appear neutral in reference including the terms “weight”, “excess weight”, “higher weight” and “BMI”, which interestingly match the preferred terms of trainee healthcare professional.²⁵ In response to HCPs using the word “obese”, people of all BMI categories mainly reported feelings of sadness, while terminology incorporating “obese” (eg, “super obese”; “morbidly obesity”) elicited the feeling of disgust, which was also consistent across all BMI categories. This is in alignment with the previous literature who likewise reported the emotional response of disgust PLWO.²⁶⁻²⁸ When the word obese was accompanied by an exacerbating verb, “super”, “extremely” and “morbidly”, more participants reported feeling of disgust, which may indicate use of these type of verbs intensify

emotional response. This finding suggests that negative emotional reactions exist towards PLWO at all body weights, with disgust being reported as a factor driving extreme prejudice, weight bias and is a predictor of negative attitudes towards PLWO.^{26,29} Disgust is reported to occur when individual encounter a physical or moral contaminant which leads to them distancing themselves from the object.³⁰ With data suggesting that perceived control of membership to a social group is positively correlated to disgust²⁶ this may suggest that participants of all BMI categories believe that obesity is within a person's control.

The greater number of participants reporting disgust when exacerbating verbs were used as indicated above with term “obese”, was also observed when comparing “BMI” with “high BMI”, “large” with “extra-large” and “overweight” with “very overweight”. This has novel and potentially important finding, as it may have practical implications for policy makers and HCPs. For instance, the term “severe obesity” is used to describe people with a BMI ≥ 40 kg/m² in national policy documentation and within weight management services. The use of exacerbating verbs may lead to perceptions of people living with overweight or obesity as being further away from what is considered the “societal norm” for body weight. Further research is needed to tease out this effect.

Medicalised terms such as ‘weight’, ‘BMI’, and ‘obesity’ appeared more accepted, whereas those terms traditionally linked with stigma, such as “morbidly obese” and “fat”, often resulted in negative emotional responses. Interestingly, evidence suggests that although some parents might be upset by HCPs using the words “overweight” or “obese”, these terms would be concerning enough to motivate them to make changes.³¹

Fear appeared to be most frequently reported emotion for parents when describing their children's body weight when using the term “high BMI” for people living with overweight and obesity but for people within the healthy weight range it was the term “morbidly obese”. Fear has also been reported in previous studies.^{14,15} Fear is a typical response when a person's physical safety is threatened²⁶ but also may be related to the fear of being blamed for their child's weight.³² This explanation for emotional response to terms used to describe body weight may provide insights into some key difference between the terms that were preferred or least preferred based on participant's BMI category. For instance, the term “BMI” was preferred by people within the healthy weight range. The difference in perception of the term “BMI” may reflect associated outcomes, where people in the healthy weight range may have received a social perceived “positive” outcome, that is, a BMI in the healthy weight range. While people living with overweight and obesity may have received a socially perceived “negative” outcome, that is, a BMI in the overweight or obesity range. As such the term “BMI” may be perceived positively and thus preferred by people within the healthy weight range, while people living with overweight or obesity may consider the term BMI to represent a perceived threat, and do not prefer its use. Further research is required to explore these differences in the preference based on the word “BMI”.

Internalized weight bias, age and BMI were associated with either strongly liking or disliking weight-related terminology. Younger people

have a stronger disliking for the term “extra-large”, “super obese” and “chubby”, this might reflect that younger people are more self-conscious of their body image and appearance compared to older people, with previous research reporting greater concern and importance of appearance in younger compared to older populations.³³ Furthermore, younger parents also have a stronger disliking of the terms ‘fat and ‘extra-large’ to describe their children's body weight, it is unclear as to why this might be the case, further research is needed to explore this finding.

BMI had less of an effect on liking and disliking, although data suggest that “unhealthy weight” is less preferred by those with a higher BMI. The lower liking of the term “unhealthy weight” amongst participants with a higher BMI may also reflect perceived threat and thus fear and the greater liking amongst people with higher weight bias internalization may reflect self-directed stigma, where individuals turn weight-based societal norms and devaluation inward and onto themselves.³⁴ This may also explain why people with high WBI report a stronger liking of the word “overweight” and less disliking of the term “chubby”.

The use of “person-first language” is supported by multiple advocacy groups. At present, “person living with obesity” is used, however, our results and others^{10,20,35} suggest ‘obesity’ is a disliked term, suggesting that this term should be changed or avoided in favour of more preferred terms reported here.

The use of the term “fat” continues to be one of disagreement. Fat acceptance activists prefer using the term ‘fat’ to describe a person's body weight, which aims to reclaim the word as a neutral term, thus reducing the associated stigma.³⁶ However, in our study, as with others, ‘fat’ remains a term that was disliked by the majority of participants, particularly when used to describe a child's weight.³⁷

Strengths of this study is that it addresses a gap in the current evidence base about the emotional response to weight-related terminology use by HCPs and is the largest study of its nature so far conducted. Furthermore, we have identified weight-related terminology across all BMI categories to show the similarities and differences. The primary limitation of the study related to the sampling bias with the data being mainly reflective of White female participants, and those with access to the online survey, however, both income and occupation showed good representation. Our study also uses self-reported height and weight, which, as with all self-reported data, may not be as accurate as measures taken in person. Furthermore, the age of the children was not collected therefore we are unable to identify if there is a difference in parental response according to their child's age.

To conclude, our findings demonstrate that weight-related terms used by HCPs often elicit a negative emotional response. HCPs should use ‘weight’ when discussing body weight with both adults and children. Given that ‘weight’ was the uniformly preferred term across all BMI categories, and elicited the least negative emotional response. Interestingly, our study raises importance considerations for the use of exacerbating verbs when referring to body weight, where greater emotional response of disgust was observed when these verbs were used, compared to when they were not. Finally, as a starting point, HCPs are advised to use

weight neutral terms and ask people for their preferred weight-related terms as not all terms are uniformly accepted.

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CONFLICT OF INTERESTS

Adrian Brown reports grants from Cambridge Weight Plan, outside the submitted work. Adrian Brown is the Vice Chair of Specialist Obesity Group of the BDA, on the Strategic Council for APPG Obesity and on the Medical Advisory Board and Share Holder of Reset Health Clinics Ltd. Stuart W. Flint reports grants from Johnson & Johnson, grants from Novo Nordisk, personal fees from Novo Nordisk, outside the submitted work.

AUTHOR CONTRIBUTIONS

Stuart W. Flint conceived the study. Stuart W. Flint and Adrian Brown designed the survey, methodology and recruitment of participants. Stuart W. Flint was responsible for the oversight of the study. Adrian Brown and Stuart W. Flint were responsible for the data analysis, data interpretation, and the writing of the manuscript and gave final approval of the submitted and published versions.

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REFERENCES

1. Hirschfeld-Dicker L, Samuel RD, Tiram Vakrat E, Dubnov-Raz G. Preferred weight-related terminology by parents of children with obesity. *Acta Paediatr*. 2019;108(4):712-717.
2. Ivezaj V, Lydecker JA, Grilo CM. Language matters: Patients' preferred terms for discussing obesity and disordered eating with health care providers after bariatric surgery. *Obesity*. 2020;28(8):1412-1418.
3. 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*. 2020;5(1):53-68.
4. Puhl R, Suh Y. Health consequences of weight stigma: implications for obesity prevention and treatment. *Curr Obes Rep*. 2015;4(2):182-190.
5. Puhl R, Peterson JL, Luedicke J. Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *Int J Obes (Lond)*. 2013;37(4):612-619.
6. National Institute of Health and Care Excellence. *Obesity: Guidance on the Prevention, Identification, Assessment and Management of Overweight and Obesity in Adults and Children* CG43. London, UK: National Institute for Health and Clinical Excellence; 2006.
7. Wharton S, Lau DCW, Vallis M, et al. Obesity in adults: a clinical practice guideline. *Can Med Assoc J*. 2020;192(31):E875-E891.
8. Pont SJ, Puhl R, Cook SR, Slusser W. Stigma experienced by children and adolescents with obesity. *Pediatrics*. 2017;140(6).
9. Flint SW. Time to end weight stigma in healthcare. *EClinicalMedicine*. 2021;34:100810.

10. Puhl RM. What words should we use to talk about weight? A systematic review of quantitative and qualitative studies examining preferences for weight-related terminology. *Obes Rev.* 2020;21(6):e13008.
11. Puhl RM, Peterson JL, Luedicke J. Parental perceptions of weight terminology that providers use with youth. *Pediatrics.* 2011;128(4):e786-e793.
12. Eneli IU, Kalogiros ID, McDonald KA, Todem D. Parental preferences on addressing weight-related issues in children. *Clin Pediatr.* 2007;46(7):612-618.
13. Knierim SD, Newcomer S, Castillo A, et al. Latino Parents' perceptions of pediatric weight counseling terms. *Acad Pediatr.* 2018;18(3):342-353.
14. Schwartz M. Parental perceptions of body mass index notification: a qualitative study. *J School Health.* 2015;85(10):714-721.
15. Ames H, Mosdøl A, Blaasvær N, Nøkleby H, Berg RC, Langøien LJ. Communication of children's weight status: what is effective and what are the children's and parents' experiences and preferences? A mixed methods systematic review. *BMC Public Health.* 2020;20(1):574.
16. Puhl RM, Himmelstein MS, Armstrong SC, Kingsford E. Adolescent preferences and reactions to language about body weight. *Int J Obes.* 2017;41(7):1062-1065.
17. Ekman P. *Emotions Revealed: Recognising Faces and Feelings to Improve Communication and Emotional Life.* New York: Times Books; 2003.
18. Ekman P, Cordaro D. What is meant by calling emotions basic. *Emotion Rev.* 2011;3(4):364-370.
19. Pearl RL, Puhl RM. Measuring internalized weight attitudes across body weight categories: validation of the modified weight bias internalization scale. *Body Image.* 2014;11(1):89-92.
20. Wadden TA, Didie E. What's in a name? Patients' preferred terms for describing obesity. *Obes Res.* 2003;11(9):1140-1146.
21. 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.
22. 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.
23. 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(1):513.
24. Hales C, Gray L, MacDonald C, Purdie G. Dissonance in naming adiposity: a quantitative survey of naming preferences from a convenience sample of health professional and lay population in Aotearoa New Zealand. *N Z Med J.* 2019;132(1496):20-30.
25. Swift JA, Choi E, Puhl RM, Glazebrook C. Talking about obesity with clients: preferred terms and communication styles of U.K. pre-registration dietitians, doctors, and nurses. *Patient Educ Couns.* 2013;91(2):186-191.
26. Vartanian LR. Disgust and perceived control in attitudes toward obese people. *Int J Obes.* 2010;34(8):1302-1307.
27. Harvey T, Troop NA, Treasure JL, Murphy T. Fear, disgust, and abnormal eating attitudes: a preliminary study. *Int J Eat Disord.* 2002;32(2):213-218.
28. Krendl AC, Macrae CN, Kelley WM, Fugelsang JA, Heatherton TF. The good, the bad, and the ugly: an fMRI investigation of the functional anatomic correlates of stigma. *Soc Neurosci.* 2006;1(1):5-15.
29. Taylor K. Disgust is a factor in extreme prejudice. *Br J Soc Psychol.* 2007;46(3):597-617.
30. Rozin PHJ, McCauley CR. Disgust. In: Lewis MH-JJ, ed. *Handbook of Emotions.* New York: Guilford Press; 2000:637-653.
31. Bolling C, Crosby L, Boles R, Stark L. How pediatricians can improve diet and activity for overweight preschoolers: a qualitative study of parental attitudes. *Acad Pediatr.* 2009;9(3):172-178.
32. Turner KM, Salisbury C, Shield JPH. Parents' views and experiences of childhood obesity management in primary care: a qualitative study. *Fam Pract.* 2011;29(4):476-481.
33. Tiggemann M, Lynch JE. Body image across the life span in adult women: the role of self-objectification. *Dev Psychol.* 2001;37(2):243-253.
34. Durso LE, Latner JD. Understanding self-directed stigma: development of the weight bias internalization scale. *Obesity.* 2008;16(suppl 2):S80-S86.
35. 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.
36. Saguy AC, Ward A. Coming out as fat: rethinking stigma. *Soc Psychol Q.* 2011;74(1):53-75.
37. Guo JD, Vann WF Jr, Lee JY, Roberts MW. Identification of preferred healthy weight counseling approaches for children in the dental setting. *J Clin Pediatr Dent.* 2018;42(6):414-421.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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