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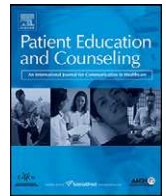
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Communication study

Talking about obesity with clients: Preferred terms and communication styles of UK pre-registration dietitians, doctors, and nurses

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ABSTRACT

Objective: To describe trainee healthcare professionals' preferred terms when talking about obesity, their beliefs about initiating discussions about weight, and their confidence about consulting with obese people.**Methods:** A self-completed questionnaire collected data on demographics, preferred terms, beliefs about initiation of discussions, confidence and training needs from 1036 pre-registration dietitians, nurses and doctors.**Results:** Participants' preferred terms when raising the issue of obesity with clients were *BMI* (mean = .96), *weight* (mean = .71) and *unhealthy BMI* (mean = .43). When defining a client's bodyweight, students endorsed the euphemism 'your weight may be damaging your health' (67.6%). A proactive, collaborative communication style was preferred by 34.9% of participants. 58.2% of participants felt confident about discussing obesity with clients and 95.1% felt that that more training would be useful.**Conclusion:** It is reassuring that UK trainee healthcare professionals avoid value-laden terms and broadly endorse words preferred by people with obesity. It is, however, concerning that the majority of participants did not favor a proactive, collaborative communication style.**Practice implications:** Educators of tomorrow's healthcare professionals could take advantage of students' desire for more training on how to effectively talk to clients with obesity about their weight. Such training would, however, require the development of clear guidelines on terminology and communication styles.

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1. Introduction

In England, just over a quarter of adults (26%) were obese in 2010 [1], and by 2030 it is estimated that 41–48% of men and 35–43% of women will have a body mass index of 30 kg/m² or above [2]. Healthcare professionals (HCPs) are, therefore, increasingly likely to come into contact with clients with obesity. To communicate effectively, they must be willing and able to engage empathically with overweight and obese people.

Obesity is, however, a highly stigmatized condition associated with blame, and it is well established that obese people are subject to prejudice and bias as a consequence of their bodyweight [3,4]. Anti-fat attitudes have been reported in HCPs, even those specializing in obesity [e.g. 5–13] and alarmingly, the next generation of HCPs also appears to be affected [14–18]. To avoid

alienating their clients, HCPs must respect patients' feelings on this sensitive issue. They also have an obligation to provide accurate medical information [19]. Three years ago, the British Public Health Minister announced her recommendation that health providers should tell their obese patients that they are *fat* to motivate their weight loss efforts [20]. However, the term *fat* serves to negatively bias individuals by transmitting negativity beyond its mere reference to excess weight [21] and research has suggested that obese people's least favored term was *fatness* [22–25]. An adult with a BMI ≥ 30 kg/m² can be described as obese according to accepted medical criteria such as those published by the World Health Organization [26], but the terms *obese* and *obesity* can also arouse strong negative feelings among obese people [22–25,27–30]. Clients may also not fully understand medical terms such as *obesity* [28]; the relationship between degree of overweight and risk to health that underpins the categorization of weight status is not a simple one [26,31].

HCPs may employ euphemisms to avoid these emotive terms and to help clients comprehend what it is to be obese. In the US, physicians have reported being much more likely to use terms such as *weight*, *excess weight* and *unhealthy body weight* compared to

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obesity [23]. In the UK, HCPs are currently advised to use “...everyday, jargon-free language...” [19] and draft guidance from NICE suggests that “...referring to ‘achieving a healthy weight’ may be more acceptable for some people” [32]. Taylor and Ogden have reported that UK General Practitioners would prefer to use a euphemism in consultations about obesity and in particular endorsed the phrase *your weight may be damaging your health* [33]. Although obese people have reported that referring to the unhealthy nature of overweight is both acceptable and motivational [25], this euphemism can negatively impact on patients’ beliefs about the seriousness of the obesity and can result in negative emotions for obese clients [33].

Selecting appropriate terminology is not the only dilemma facing HCPs; they must also decide whether to broach the issue of obesity at all. During a consultation, weight needs to be framed as a problem to initiate a discussion [34]. Patients are, however, often unwilling to raise the issue of bodyweight [35] and evidence suggests that obesity is not routinely diagnosed by HCPs [36] nor discussed in primary care [37–39]. Reasons for HCPs’ reluctance include concerns about patients’ negative emotional reactions [40–42].

There is no clearly established method for telling patients that they are obese [43]. Although NICE recommends that adults should be given information about their obesity and its associated health risks, HCPs are advised to use their clinical judgment to decide when to measure a person’s weight and height [19]. This lack of specific guidance may serve to undermine HCPs’ confidence and effectiveness when working with obese clients. Although a survey, conducted 15 years ago, demonstrated that UK practice nurses were confident in their ability to give advice to obese patients [44], NICE considers public health workers’ lack confidence to be a fundamental issue [32].

The prevention and management of obesity is considered to be a priority for all HCPs [19] and, in the future, will be directed by students currently training to become nurses, doctors and dietitians. Draft guidance from NICE recommends that HCPs are trained in “... the appropriate language to use...” [32] and an ideal opportunity for this is during pre-registration training where student HCPs are developing the skills and attitudes that will influence their future conduct [45]. Nothing, however, is currently known about the training needs of UK trainee HCPs. This study, therefore, investigated preferred terms when discussing obesity and beliefs about the appropriateness of initiating discussions from the perspective of students training to become doctors, nurses, and dietitians. Furthermore, this study investigated UK trainee HCPs’ confidence when discussing obesity with clients and identified any self-reported training needs.

2. Methods

2.1. Participants and procedures

All students registered on the Master of Nutrition (Dietetic), Master of Nursing Science (Nursing MNurSci) and Bachelor of Science in Nursing (Nursing BSc), and Bachelor of Medical Sciences (Medicine) courses at the University of Nottingham attending selected teaching sessions in October–December 2010 were invited to participate in the study. Recruitment and data collection took place during a single selected teaching session for each year group on each course. Mandatory teaching sessions were selected wherever possible to improve the representativeness of the sample. Participation was entirely voluntary and prior to distribution of the questionnaire, an information sheet and a short verbal explanation were presented to potential participants.

2.2. Instruments

A self-completed questionnaire was used to survey trainee HCPs’ preferred terms, beliefs about initiation of discussions, confidence and training needs when discussing obesity with clients.

2.2.1. Preferred terms

Participants were asked to rate the appropriateness of various terms when broaching the issue of bodyweight: If a person had a BMI over 30 kg/m² (*i.e.* is clinically defined as obese), how desirable are the following terms when introducing the issue of their bodyweight? I would like to talk to you about your: (1) weight; (2) heaviness; (3) obesity; (4) BMI; (5) excess weight; (6) fatness; (7) excess fat; (8) large size; (9) unhealthy body weight; (10) weight problem; and (11) unhealthy BMI. A 5-point response format was employed (1 = very desirable, 5 = very undesirable) and data were transformed to a scale of +2 = very desirable, 0 = neutral, and –2 = very undesirable, as described by Wadden and Didie [22] to increase comparability with previous research [22–24].

Participants were also asked to state their preferred term when defining a person’s bodyweight: If a person had a BMI over 30 kg/m² (*i.e.* is clinically defined as obese), which of the 10 terms would you be most likely to use in a consultation? (1) Your weight may be damaging your health, (2) You are overweight, (3) You need to lose weight, (4) You are suffering from obesity, (5) You are obese, (6) You are heavier than you should be, (7) You are an unhealthy weight, (8) You are too fat, (9) You are too large, (10) You have put on too much weight, (11) I am unsure. Question adapted from Taylor and Ogden [33] with additional terms inspired by Wills et al. [46], Tischner and Malson [47], Eneli et al. [48] and Webb [49]. Terms 1–3, 6–7 were considered to be euphemisms, as defined by Taylor and Ogden [33]. Terms 8–10 were also considered to be euphemisms as they are not medical terms and were derived from verbatim quotes from obese people and/or parents of obese children [46–49].

2.2.2. Initiation of discussions

Participants were asked to rate the extent to which they agree with 3 statements about their profession’s role in discussing the issue of bodyweight using a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree): (1) *A dietitian/nurse/doctor should always raise the issue of a person’s obesity, even if the client is consulting about an unrelated health issue*, (2) *A dietitian/nurse/doctor should only discuss a person’s obesity if s/he has first established that the client wishes to do so*, (3) *A dietitian/nurse/doctor should only discuss a person’s obesity if the client raises the issue themselves*. For analysis, responses were collapsed into ‘Strongly Agree or Agree’, ‘Neutral’ and ‘Strongly Disagree or Disagree’.

2.2.3. Confidence and training requirements

Participants were asked to respond to one item on confidence: *How confident do you feel about discussing obesity with clients?* (1 = very confident, 2 = confident, 3 = somewhat unsure, and 4 = completely unsure), and one item on training needs: *Do you feel that you need more training on how to discuss obesity with clients?* (1 = yes, more training is essential, 2 = yes, more training would be useful, 3 = no, the training I have received is adequate, 4 = no, the training I have received is excessive). For analysis, responses were collapsed into ‘Very confident or confident’ and ‘Less confident or unconfident’, and ‘Yes, more training is useful or essential’ and ‘No, more training is not required’, respectively.

2.2.4. Demographics

In the final section, participants were asked record their educational degree, year of study, gender, age, weight, and height.

Participants were not asked any information regarding their ethnic background as previous research involving trainee HCPs studying at The University of Nottingham demonstrated little variance with the majority being Caucasian [50].

2.3. Ethical considerations

This study received approval from the Nottingham University Medical School Ethics Committee. All responses were anonymous. Participants were considered to have consented to taking part in the study if they completed and returned a questionnaire. By way of a small token of appreciation, participants were offered the opportunity to enter a prize-draw to win one of three £50 book vouchers.

2.4. Data analysis

Data entry was conducted by three members of the research team. A randomly selected 10% sample of each members' data was checked by an independent researcher for accuracy of entry and revealed an error rate of <1%, below the threshold considered to have any significant effect on the data analysis [51]. Prior to analysis, the data set was screened for missing values, normality and univariate outliers [52]. Categorical demographic data were analyzed for differences between student groups using Chi-squared tests. As continuous demographic data were non-Gaussian, analyses relating to student group effects employed Kruskal–Wallis nonparametric analysis of variance tests followed up with *post hoc* Mann–Whitney *U*-tests. As the distribution of scores of the 11 preferred terms approximated to normal, a one-way repeated measures ANOVA was conducted to compare scores. A *post hoc* analysis was performed using Tukey's studentized range test to identify statistically significant difference between pairs of terms. A one-way between-groups MANOVA was also conducted to investigate sex differences and differences between the courses that students were registered on. Once again, *post hoc* analysis was performed using Tukey's studentized range test to identify statistically significant difference between pairs of terms. Significance was taken as $p < .05$ apart from: (1) the MANOVA which was set at $p < .01$ as preliminary assumption testing revealed violations in terms of homogeneity of variance-covariance matrices and equality of variance, (2) *post hoc* Tukey's studentized range test where $p < .01$ was employed, and (3) *post hoc* tests assessing group

effects, where a Bonferroni corrected alpha of .008 was employed. All data analyses were conducted using IBM SPSS Statistics 19 (SPSS Inc., Chicago, IL).

3. Results

3.1. Response rate

Of the 2129 students registered on the target courses, 850 did not attend the teaching session where data collect took place; therefore, the 1279 attending were invited to participate. Of these, 1036 (81.0%) responded giving an overall response rate of 48.6%. There were no significant differences between courses in terms of response rates.

3.2. Demographics

Participants were predominately female ($n = 815$, 78.7%), were on average 20.3 years of age (median (IQR) = 20.3 (2.17) years) and were of a healthy body mass index (BMI) (median (IQR) = 21.6 (3.79) kg/m²). There were significant student group effects on gender, age and BMI ($p < .001$). Although there were more males in the medical student group compared to other courses ($p < .01$) and Nursing BSc students were more likely to be older and have higher BMI than other student groups ($p < .01$), these differences were not significant using the Bonferroni corrected alpha of .008.

3.3. Preferred terms

The one-way repeated measures ANOVA revealed significant differences between ratings (Wilks' Lambda = .19, $F(10,1090) = 471.22$, $p < .001$, multivariate eta squared = .81). According to Cohen, the effect size can be considered to be very large [53]. *Post hoc* Tukey's studentized range test identified statistically significant differences between pairs of terms (Fig. 1). Participants' preferred terms when raising the issue of obesity with clients were *BMI* (mean = .96), *weight* (mean = .71) and *unhealthy BMI* (mean = .43) (Fig. 1). None of the 11 terms were considered to be 'desirable' (+1) to 'very desirable' (+2). On average, participants rated *fatness* (mean = -1.57), *excess fat* (mean = -1.24), *large size* (mean = -1.17), and *heaviness* (mean = -1.14) as being 'undesirable' (-1) to 'very undesirable' (-2) while *obesity* (mean = -.57),

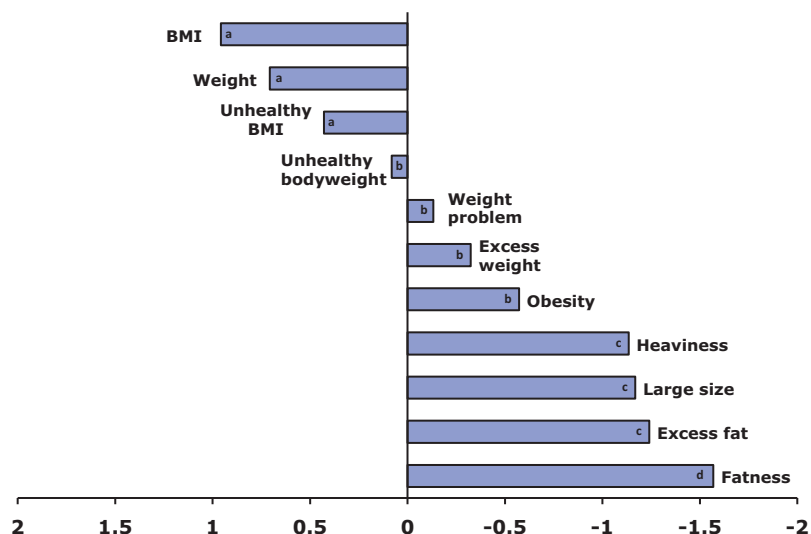


Fig. 1. Students' ratings of 11 terms when broaching the issue of obesity with clients. Terms with different letters are significantly different from each other ($p < .01$).

Table 1

Term most likely to be used by student groups in a consultation when defining an obese client's bodyweight.

	Dietetics n (%)	Medicine n (%)	Nursing MNurSci n (%)	Nursing BSc n (%)	Total n (%)
Your weight may be damaging your health	75 (72.8)	360 (70.5)	95 (69.9)	158 (59.0)	688 (67.6)
You are overweight	2 (1.9)	13 (2.5)	7 (5.1)	10 (3.7)	32 (3.1)
You need to lose weight	2 (1.9)	24 (4.7)	5 (3.7)	4 (1.5)	35 (3.4)
You are suffering from obesity	2 (1.9)	10 (2.0)	5 (3.7)	3 (1.1)	20 (2.0)
You are obese	2 (1.9)	7 (1.4)	3 (2.2)	5 (1.9)	17 (1.7)
You are heavier than you should be	3 (2.9)	21 (4.1)	4 (2.9)	11 (4.1)	39 (3.8)
You are an unhealthy weight	11 (10.7)	42 (8.2)	10 (7.4)	28 (10.4)	91 (8.9)
You are too fat	0	4 (0.8)	0	2 (0.7)	6 (0.6)
You are too large	0	0	0	0	0
You have put on too much weight	0	0	0	3 (1.1)	3 (0.3)
Unsure	6 (5.8)	30 (5.9)	7 (5.1)	44 (16.4)	87 (8.5)

Missing data for Dietetics (n=1), Medicine (n=9), Nursing MNurSci (n=1), and Nursing BSc (n=7).

excess weight (mean = $-.33$), weight problem (mean = $-.13$) and unhealthy body weight (mean = $.08$) were rated as 'neutral' (0) to 'undesirable' (-1).

The one-way between-groups multivariate analysis of variance revealed significant effects in relation to the course that students were registered on, but not gender (Pillai's trace = $.09$, $F(44,4320) = 2.27$, $p < .001$, multivariate eta squared = $.02$). However, according to Cohen, the effect size can be considered to be very small [53]. When results for the terms were considered separately, the differences to reach significance were *BMI*, *weight*, *unhealthy BMI*, *unhealthy bodyweight*, *weight problem*, *excess weight*, and *fatness* but the amount of variance explained by course for each of these terms did not exceed 2%.

Overall, the term most likely to be used by students in a consultation when defining a client's bodyweight was *your weight may be damaging your health* (67.6%) followed by *you are an unhealthy weight* (8.9%) (Table 1). The majority of participants preferred to use a euphemism than the term *obese* or *obesity* (87.7% vs. 3.6%). There was no significant student group effect on preference for euphemisms. A minority of participants (8.5%) were unsure as to which term they would be most likely to use (Table 1).

3.4. Initiation of discussions

Just under half the participants (48.8%) agreed or strongly agreed that a member of their profession should 'always raise the issue of a person's obesity, even if the client is consulting about an unrelated health issue'. By contrast, 14.9% agreed or strongly agreed that that a member of their profession should 'only discuss a person's obesity if the client raises the issue themselves', and 34.9% agreed or strongly agreed that that a member of their profession should 'only discuss a person's obesity if s/he has first established that the client wishes to do so'. There were significant student group effects for each of the three statements ($p < .001$). *Post hoc* Chi-square analyses revealed that medical students were more likely to agree that a doctor should 'always raise the issue' and less likely to agree that doctor should 'only discuss a person's obesity if s/he has first established that the client wishes to do so', compared to all other student groups ($p < .008$). In addition, Nursing BSc students more likely to agree that a nurse should 'only discuss a person's obesity if the client raises the issue themselves', compared to medical students ($p < .008$) and dieticians ($p = .009$).

3.5. Confidence and training

Just over half the participants felt confident or very confident about discussing obesity with clients (n = 603, 58.2%). There was a significant student group effect ($p < .01$). Although trainee dieticians were more confident than all other student groups

($p < .05$), these differences were not significant using the Bonferroni corrected alpha of $.008$. The vast majority of participants felt that that more training on how to discuss obesity with clients would be either useful or essential (n = 985, 95.1%). Analysis of student group effect on training requirements was prevented by too few numbers in categories.

4. Discussion and conclusion

4.1. Discussion

The current study revealed that UK trainee HCPs' preferred terms when raising the issue of obesity with clients were *BMI*, *weight* and *unhealthy BMI* which broadly reflects ratings of physicians and obese people in the US [22–24]. The current findings are also similar to previous research in that participants' least favored term was *fatness* [22–24] whilst the term *obesity* was considered to be 'neutral' to 'undesirable' [22–24].

Students, therefore, appear to appreciate that, although medically appropriate, the term *obesity* has come to have, for some, a negative social meaning by implying a sense of disgust [54]. It is, however, notable that the term *weight* was not, as in previous research, rated significantly higher than other terms, nor was the absolute rating within the 'desirable' to 'very desirable' range. Furthermore, in the present sample the average rating for *BMI* was $.96$ which contrasts with previous research where ratings ranged between $.1$ and $.7$. The presence of *BMI* among the preferred terms has important implications for training. Although *BMI* does not imply any negative attributes nor assigns a value laden label, concerns might be raised as to the extent to which *BMI* is understood by clients. Even the full term of *Body Mass Index* does not immediately suggest that it is a measure of weight, which takes into account a person's height. It also requires knowledge of weight and height in metric units and a complex calculation – kg/m^2 . Furthermore, *BMI* does not measure body fat directly and although it is the recommend measure of overweight in adults to be used by HCPs [19], some obese people have questioned its validity [25]. Undoubtedly the development of effective training programs will require further research that fully explores the preferred terms of obese people in the UK and the impact of HCPs terminology in consultations. However, at the very least, all trainee HCPs should be made aware of the potential consequences of their language and if they use *BMI*, they ensure that both they and their clients understand its meaning and its implications for health.

Although avoiding negative attribution may be positive when initiating conversations about bodyweight with clients, some level of perceived risk may be necessary for behavior change [33]. Patient reports of being told by a physician that they were overweight have been associated with desires to lose weight and recent attempts to lose weight [55]. NICE, therefore, recommends

that adults should be given information about their obesity and its associated health risks [19] but it is essential that this information is communicated in a way that the client understands and feels supported. In line with practicing HCPs [33] and public health experts [32], trainee HCPs endorse the use of euphemisms for obesity. Once again, the development of effective training programs will require further research that fully explores the impact of euphemisms in consultations but, at the very least, all trainee HCPs should understand the advantages and disadvantages of euphemisms. Furthermore they should be encouraged to explore whether clients fully understand their meanings and implications, and address any negative emotional effects.

Visits to HCPs may be initiated for reasons other than bodyweight but can represent potential opportunities for discussion [19], particularly for clients who do not often access healthcare services [56]. However, obese clients rightfully expect their HCPs to communicate respectfully and suggest that the way something is said is just as important as what is said [28]. In the current study, students, particularly medical students, tended to endorse a direct approach with just under half suggesting that members of their profession should always raise the issue of obesity, even if clients are consulting about unrelated health issues. Obese patients have, however, reported feeling frustrated and angry when their presenting complaints were attributed to weight [28] and practicing HCPs have reported concerns about raising the issue because of negative reactions from clients [40–42].

Only a small minority of participants supported a passive role, agreeing that members of their profession should rely on clients raising the issue of obesity. While this approach avoids potentially negative confrontations, evidence suggests that obese clients are hesitant to bring up the issue of their bodyweight [27,35] and believe that it is HCPs' responsibility to initiate discussions [25,27]. A potentially useful middle-ground, advocated by Wadden and Didie [22] and endorsed by just over a third of the participants in the current study, is to seek a client's agreement first. This proactive, collaborative approach allows weight to be constructed as an issue in need of attention by both the patient and HCPs [34] and also respects patient autonomy. Taken together, the results of this study suggest that students would benefit from training to encourage a greater acceptance of collaborative approaches to initiating discussions and to discourage direct or passive approaches. Such training could usefully promote the use of open questioning and empathic listening to allow clients to take the conversational lead and construct their weight as a problem. Such an approach is more patient-centered but involves significant communication skill as well as the development of self-awareness [57].

Given the lack of specific guidance about how to conduct consultations with obese clients, it is perhaps surprising that the participants in the current study felt so confident. It is possible that this confidence is somewhat misplaced and that once in practice the reality of dealing with this sensitive issue will become apparent, and confidence will be as low as practicing HCPs [32]. Despite this, the vast majority would like more training and educators of tomorrow's HCPs could take advantage of this to develop "vital" confidence [32].

The current study was subject to a number of limitations. The majority of students invited, chose to participate in the study ($n = 1036$, 81.0%) although this sample represents just under half the 2129 students registered onto the courses at the time of data collection (48.7%). This compares favorably with a study investigating knowledge regarding the health risks associated with obesity among a sample of UK trainee HCPs from the same university that employed electronic data collection (30.0%) [50]. However, it is possible that students attending selected teaching

sessions and participating in the study were more committed to their chosen career and, therefore, more engaged in issues such as obesity. There is, however, no reason to suggest that this would have affected any one student group more than another. In addition, data were collected from a single UK university and it is possible that trainee HCPs attending other UK higher education institutions might differ in some meaningful way from those participating in the present study. More work is needed to assess preferences in more diverse groups of healthcare professionals, taking into account different cultural backgrounds, and with a broader BMI range.

The current study used previous quantitative and qualitative studies to develop a comprehensive list of statements, but it is possible that participants would prefer terms other than those listed. For example, in a study published after the data were collected reported that obese patients listed other potentially useful terms such as *size* and *health* [24]. Furthermore, the scenarios used to assess initiation of discussions are mutually exclusive and it would have been more appropriate for respondents to have selected the most desirable option. As with other studies in the area, participants' responses may have been subject to social desirability bias as self-reported beliefs are used as a proxy for actual behavior. Future studies may, therefore, benefit from direct assessment of behavior – either in real-life or simulated clinical encounters.

4.2. Conclusion

Students' preference for the term *BMI* and their endorsement of euphemisms when framing weight as a health concern is broadly similar to the preferences of people with obesity, practicing HCPs and health experts. Furthermore, the current study demonstrated that the majority of participants did not endorse a proactive yet collaborative style of communication when discussing obesity with clients. Educators of tomorrow's HCPs could take advantage of students' desire for further training to promote patient-centered consultations for obesity.

4.3. Practice implications

Training programs should ensure that student HCPs:

1. are aware of the potential impact of their language when discussing obesity and address any negative emotional effects of their language,
2. check that clients fully understand the language employed,
3. conduct patient-centered consultations.

Authors' contributions

All named authors made an active contribution to the conception and design of the study and analysis and interpretation of the data. In addition, all named authors made an active contribution to the drafting of the paper, critically reviewed its content and have approved the final version submitted for publication.

Conflict of interest

The authors declare that they have no conflict of interests.

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References

- [1] The Health and Social Care Information Centre. Statistics on obesity, physical activity and diet: England, 2012. Publication date February 23, 2012. Available from: http://www.ic.nhs.uk/webfiles/publications/003_Health_Lifestyles/OPAD12/Statistics_on_Obesity_Physical_Activity_and_Diet_England_2012.pdf [cited 12.07.12].
- [2] Wang YC, McPherson K, Marsh T, Gortmaker SL, Brown M. Health and economic burden of the projected obesity trends in the USA and the UK. *Lancet* 2011;378:815–25.
- [3] Puhl R, Brownell KD. Bias, discrimination, and obesity. *Obes Res* 2001;9:788–905.
- [4] Puhl RM, Heuer CA. The stigma of obesity: a review and update. *Obesity* 2009;17:941–64.
- [5] Maiman LA, Wang VL, Becker MH, Finlay J, Simonson M. Attitudes toward obesity and the obese among professionals. *J Am Diet Assoc* 1979;74:331–6.
- [6] McArthur LH, Ross JK. Attitudes of registered dietitians toward personal overweight and overweight clients. *J Am Diet Assoc* 1997;97:63–6.
- [7] Campbell K, Crawford D. Management of obesity: attitudes and practices of Australian dietitians. *Int J Obes* 2000;24:701–10.
- [8] Hebl MR, Xu J. Weighing the care: physicians' reactions to the size of a patient. *Int J Obes* 2001;25:1246–52.
- [9] Teachman BA, Brownell KD. Implicit anti-fat bias among health professionals: is anyone immune? *Int J Obes* 2001;25:1525–31.
- [10] Harvey EL, Summerbell CD, Kirk SFL, Hill AJ. Dietitians' views of overweight and obese people and reported management practices. *J Hum Nutr Diet* 2002;15:331–47.
- [11] Foster GD, Wadden TA, Makris AP, Davidson D, Sanderson RS, Allison DB, Kessler A. Primary care physicians' attitudes about obesity and its treatment. *Obes Res* 2003;11:1168–77.
- [12] Schwartz MB, Chambliss HO, Brownell KD, Blair SN, Billingtonm C. Weight bias among healthcare professionals specializing in obesity. *Obes Res* 2003;11:1033–9.
- [13] Brown I. Nurses' attitudes towards adult patients who are obese: literature review. *J Adv Nurs* 2006;53:221–32.
- [14] Berryman DE, Dubale GM, Manchester DS, Mittelstaedt R. Dietetics students possess negative attitudes toward obesity similar to nondietetic students. *J Am Diet Assoc* 2006;106:1678–82.
- [15] Puhl R, Wharton C, Heuer C. Weight bias among dietetics students: implications for treatment practices. *J Am Diet Assoc* 2009;109:438–44.
- [16] Poon MY, Tarrant M. Obesity: attitudes of undergraduate student nurses and registered nurses. *J Clin Nurs* 2009;18:2355–65.
- [17] O'Brien KS, Puhl R, Latner JD, Mir AS, Hunter JA. Reducing anti-fat prejudice in preservice health students: a randomized trial. *Obesity* 2010;18:2138–44.
- [18] Swift JA, Hanlon S, El-Redy L, Puhl RM, Glazebrook C. Weight bias among UK trainee dietitians, doctors, nurses and nutritionists. *J Hum Nutr Diet* 2012. <http://dx.doi.org/10.1111/jhn.12019> [Epub ahead of print].
- [19] National Institute for Health and Clinical Excellence. NICE clinical guidance 43. Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Issue date December, 2006. Available from: http://www.nice.org.uk/nicemedia/pdf/CG43NICE_Guideline.pdf [cited 12.07.12].
- [20] Martin D. Obese? Just call them fat: plain-speaking doctors will jolt people into losing weight, says minister. *The Daily Mail* [updated 29.07.10]. Available from: <http://www.dailymail.co.uk/news/article-1298394/Call-overweight-peoplefat-instead-obese-says-health-minister.html> [cited 10.09.11].
- [21] 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.
- [22] Wadden TA, Didie E. What's in a name? Patients' preferred terms for describing obesity. *Obes Res* 2003;11:1140–6.
- [23] Dutton GR, Tan F, Perri MG, Stine CC, Dancer-Brown M, Goble M, Van Vessel N. What words should we use when discussing excess weight? *J Am Board Fam Med* 2010;23:606–13.
- [24] Volger S, Vetter ML, Dougherty M, Panigrahi E, Egner R, Webb V, Thomas JG, Sarwer DB, Wadden TA. Patients' preferred terms for describing their excess weight: discussing obesity in clinical practice. *Obesity* 2012;20:147–50.
- [25] 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 Pub Health* 2011;11:513.
- [26] World Health Organization. Obesity: preventing and managing the global epidemic. Geneva, Switzerland: World Health Organization; 2000.
- [27] 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;11:321–30.
- [28] 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;24:579–84.
- [29] Lewis S, Thomas SL, Warwick Blood R, Hyde J, Castle DJ, Komesaroff PA. Do health beliefs and behaviors differ according to severity of obesity? A qualitative study of Australian Adults. *Int J Environ Res Public Health* 2010;7:443–59.
- [30] Weight Concern. Obese and fat are the most hurtful words a doctor can use. Available from: <http://www.shape-up.org/weightcon/WCNletterSpring08.pdf> [cited 10.09.11].
- [31] World Health Organization Expert Committee. Physical status: the use and interpretation of anthropometry. Geneva, Switzerland: World Health Organization; 1995.
- [32] National Institute for Health and Clinical Excellence. Public health draft guidance. Obesity: working with local communities. Issue date May, 2012. Available from: <http://www.nice.org.uk/nicemedia/pdf/CG43NICEGuideline.pdf> [cited 12.07.12].
- [33] Tailor A, Ogden J. Avoiding the term 'obesity': an experimental study of the impact of doctors' language on patients' beliefs. *Patient Educ Couns* 2009;76:260–4.
- [34] Scott JG, Cohen D, DiCicco-Bloom B, Orzano AJ, Gregory P, Flocke SA, Maxwell L, Crabtree B. Speaking of weight: how patients and primary care clinicians initiate weight loss counseling. *Prev Med* 2004;38:819–27.
- [35] Tham M, Young D. The role of the General Practitioner in weight management in primary care – a cross sectional study in General Practice. *BMC Fam Pract* 2008;9:66.
- [36] Ma J, Xiao L, Stafford RS. Adult obesity and office-based quality of care in the U.S. *Obesity* 2009;17:1077–85.
- [37] Ko JY, Brown DR, Galuska DA, Zhang J, Blanck HM, Ainsworth BE. Weight loss advice US obese patients receive from health care professionals. *Prev Med* 2008;47:587–92.
- [38] Shiffman S, Sweeney CT, Pillitteri JL, Sembower MA, Harkins AM, Wadden TA. Weight management advice: what do doctors recommend to their patients? *Prev Med* 2008;49:482–6.
- [39] Breitkopf CR, Egginton JS, Naessens JM, Montori VM, Jatoti A. Who is counseled to lose weight? Survey results and anthropometric data from 3,149 lower socioeconomic women. *J Community Health* 2012;37:202–7.
- [40] Miche S. Talking to primary care patients about weight: a study of GPs and practice nurses in the UK. *Psychol Health Med* 2007;12:521–5.
- [41] Pedersen PJ, Ketcham PL. Exploring the climate of overweight and obese students in a student health setting. *J Am Coll Health* 2009;57:465–9.
- [42] Hansson LM, Rasmussen F, Ahlstrom GI. General practitioners' and district nurses' conceptions of the encounter with obese patients in primary health care. *BMC Fam Pract* 2011;12:7.
- [43] Baron RB. Telling patients they are overweight or obese: an insult or an effective intervention? *Arch Intern Med* 2011;171:321–2.
- [44] Hoppé R, Ogden J. Practice nurses' beliefs about obesity and weight related interventions in primary care. *Int J Obes Relat Metab Disord* 1997;21:141–6.
- [45] Ottenritter NW. Service learning, social justice, and campus health. *J Am Coll Health* 2004;52:189–91.
- [46] Wills W, Backett-Milburn K, Gregory S, Lawton J. Young teenagers' perceptions of their own and others' bodies: a qualitative study of obese, overweight and 'normal' weight young people in Scotland. *Soc Sci Med* 2006;62:396–406.
- [47] Tischner I, Malson H. Exploring the politics of women's in/visible 'large' bodies. *Fem Psychol* 2008;18:260–7.
- [48] Eneli IU, Kalogiros ID, McDonald KA, Todem D. Parental preferences on addressing weight-related issues in children. *Clin Pediatr (Phila)* 2007;46:612–8.
- [49] Webb H. 'I've put weight on cos I've bin inactive, cos I've 'ad me knee done': moral work in the obesity clinic. *Social Health Ill* 2009;31:854–71.
- [50] Swift JA, Sheard C, Rutherford M. Trainee healthcare professionals' knowledge of the health risks associated with obesity. *J Hum Nutr Diet* 2007;20:599–604.
- [51] Day S, Fayers P, Harvey D. Double data entry: what value, what price? *Control Clin Trials* 1998;19:15–24.
- [52] Tabachnick BG, Fidell LS. Using multivariate statistics. International Students Edition, 4th ed., Boston: Allyn and Bacon; 2000.
- [53] Cohen J. Statistical power analysis for the behavioral sciences. Hillsdale, NJ: Erlbaum; 1988.
- [54] Berg M. Choose sensitive, accurate terms. *Healthy Weight J* 1998;12:12–3.
- [55] Post RE, Mainous AG, Gregorie SH, Knoll ME, Diaz VA, Saxena SK. The influence of physician acknowledgement of patients' weight status on patient perceptions of overweight and obesity in the United States. *Arch Intern Med* 2011;171:316–21.
- [56] Stange KC, Flocke SA, Goodwin MA. Opportunistic preventive services delivery. Are time limitations and patient satisfaction barriers? *J Fam Pract* 1998;46:419–24.
- [57] Lyles JS, Dwamena FC, Lein C, Smith RC. Evidence-based patient-centered interviewing. *J Clin Outcomes Manage* 2001;8:28–34.