ORIGINAL ARTICLE



Crucial conversations about weight management with healthcare providers: patients' perspectives and experiences

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Abstract

Purpose To elicit patient experiences of weight management discussions with providers and provide recommendations for future weight-related discussions.

Methods 1000 patients who recently saw their provider for non-weight specific appointments were mailed measures of demographics, self-reported height and weight, activity level, adherence, perceptions of and recommendations for weight-related discussions, and internalized weight bias. This study was primarily descriptive and utilized a mixed method design including collection of quantitative and qualitative data.

Results 242 patients responded (24 % response rate); 32.4 % overweight (N=72), 41.9 % obese (N=93). 47 % of overweight and 71 % of obese patients recalled that their provider discussed weight; 92 % were motivated to follow recommendations and 89 % felt confident doing so. Most patients (75 %) would like their provider to be "very direct/straightforward" when discussing weight, and 52 % would be "not at all offended" if they were diagnosed as "overweight/obese." Most patients (63 %) reported being "extremely comfortable" discussing weight with providers. Patients with higher BMI had higher levels of internalized weight bias (p < .001) and wanted their provider to "discuss weight sensitively" (p < .05).

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Conclusion This study suggests that patients have important preferences that providers should be mindful of when discussing weight. While these discussions can be challenging, most patients report that they would be comfortable having these conversations directly and most would have enhanced motivation and confidence following these conversations. Communicating about weight is needed and desired by patients; doing so sensitively with those at higher weight is essential.

Keywords Obesity · Weight management · Communication

Introduction

Obesity is an important public health problem in the USA. Physician attention to obesity has been shown to improve weight management for patients [1]. Unfortunately, many patients do not receive instruction about obesity from their health care team. Improving providers' ability and engagement in helping patients manage their weight is a major goal of the American Heart Association/American College of Cardiology/The Obesity Society (AHA/ACC/ TOS) Guidelines for the Management of Overweight and Obesity in Adults [2]. Due to the potentially sensitive nature of discussing weight management, many healthcare providers avoid these crucial conversations, or experience feelings of ineffectiveness with them. Frequency with which providers discuss weight with overweight and obese patients varies from <50 % [3] to >80 % [4, 5]. When providers do discuss weight, patients may have more realistic perceptions of their weight and can experience increased desire to lose weight [6], increased likelihood to change health behaviors [7, 8], more motivation/confidence



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to lose weight [5], and are more likely to lose weight [9]. The format and style of these patient-provider discussions are important as it has been shown that alerting patients to their overweight status alone may not be sufficient to result in weight loss and/or improved health behaviors [10] and can be stigmatizing [11, 12].

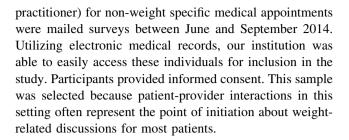
Research has identified barriers to positive weight-based discussions, which consist of both physician (e.g., lack of time) [4, 13, 14] and patient factors (e.g., motivation to lose weight) [4, 15]. One important patient factor that has not yet been examined is internalized weight bias [16], which can lead individuals to experience self-hatred and denigration toward themselves because of their weight [16, 17]. Patients often report that they are discriminated against by medical professionals including being labeled negatively for their weight or having providers make an assumption that their problem is entirely attributable to their weight alone [18]. Those who experience weight bias are less likely to seek healthcare in the future [18]. Individuals who internalize negative weight-related stereotypes are at risk of physical (e.g., poor health) [17] and psychological (e.g., depression) [16, 19] consequences. Additionally, research suggests that, over time, experiences of weight bias actually increase the likelihood of development of obesity [20].

Current study aims included: (1) Examine, from patients' perspective, whether their internal medicine provider discussed weight management, and how motivated and confident patients felt to follow through with these recommendations, (2) Gather patient perceptions of weight-related conversations that took place during the visit, (3) Gather patient recommendations for future weight-related discussions and (4) Examine the impact of internalized weight bias on perceptions and recommendations. Because individuals who internalized weight bias are more likely to believe and follow harsh stereotypes about obesity (e.g., obese people are lazy; if obese people ate less and exercised more they could lose weight), we hypothesized that patients with higher levels of internalized weight bias would be more likely to recommend that their provider give harsher recommendations for weight management. Conversely, we also wondered, given previous research suggesting that internalized weight bias can lead to avoidance of health behaviors [19], whether individuals with higher levels of internalized weight bias might avoid wanting to discuss weight with their provider all together.

Materials and methods

Participants

One thousand patients who recently (<3 months) saw their internal medicine provider (e.g., physician, nurse



Study design

The survey assessed demographics, perceptions of weight-related discussions during this visit, general adherence to medical recommendations, physical activity level, and internalized weight bias. A mixed method design of quantitative and qualitative assessments (open-ended and closed questions in the survey) was used in this study due to the overwhelming body of research in this area using either quantitative or qualitative data collection techniques; we hoped to introduce novel findings with this methodology into the literature. This study involves cross-sectional data. This study was approved by the Institutional Research Review Board.

Measures

Demographic data

Patients provided self-reported height and weight, gender, age, race, education, and smoking status. They also indicated their overall level of health and whether they were trying to lose weight.

Physical activity level

Patients were given the Godin Leisure-Time Exercise Questionnaire [21, 22] which asks adults to respond to the following; "Considering a 7-day period (a week), how many times on average do you do the following kinds of exercise for more than 15 min during your free time?" Participants indicated how many times per week they engaged in "Strenuous" (heart beats rapidly, i.e., running), "Moderate" (not exhausting, i.e., fast walking), and "Mild" exercise (minimal effort, i.e., easy walking). A moderate-to-strenuous physical activity score (MSPA) is calculated using the formula provided by Godin [22]. Participants with scores <14 are considered insufficiently active, scores between 14 and 24 are considered moderately active, and scores >24 are considered sufficiently active. A recent psychometric evaluation of this measure demonstrated evidence of adequate reliability and good validity for identification of activity level [23]. Physical activity was assessed in this sample for descriptive purposes.



Patient adherence

Also included were General Adherence items from the Medical Outcomes Study [24, 25], to describe adherence in the current sample. Patients were asked to indicate their general level of adherence over the past 4-weeks to 5 items (e.g., "I had a hard time doing what the doctor suggested I do...") on a 6-point Likert Scale ranging from "None of the time" to "All of the time." Patients were instructed "When thinking about these statements, please think of recommendations your provider made about weight loss." Prior research supports the psychometric properties of this measure [26]. Cronbach's alpha for this study was 0.81.

Perceptions of weight conversations

To describe patients' perceptions of recent conversations about weight with providers, participants were asked closed, multiple choice questions with likert scale response options and open-ended questions. Closed questions included an assessment of whether the provider discussed weight during the appointment, whether they made recommendations for weight loss, and patient motivation and confidence following recommendations. Open-ended questions included an assessment of specific recommendations the provider made, actions the patient took in response, and how it felt (for the patient) for their provider to discuss weight.

Recommendations for future weight conversations

Recommendations were assessed to describe recent experiences and make comparisons among different participant groups. Patients were given closed, multiple choice questions with likert scale response option questions assessing how direct they would like their provider to be when discussing weight (avoid discussing weight completely, discuss weight, but do so sensitively, or be very direct/straightforward), comfort level when discussing weight (not at all comfortable to extremely comfortable), and how offended the patient would be if diagnosed as overweight/obese (not at all offended to extremely offended). Openended questions included assessment of what techniques the patient felt were most helpful during the discussion, an example of how patients would like providers to discuss weight, and preferred terms for weight status.

Internalized Weight Bias

The Modified Weight Bias Internalization Scale (WBIS-M) [27] is an 11-item scale based on the original scale by Durso and Latner [16]. The WBIS-M replaces

"overweight" with "my weight." For example, "I am less attractive than most other people because of my weight." Responses are rated on a 7-point Likert scale ranging from "Strongly disagree" to "Strongly agree" and are averaged to generate a summary score. Scores were reverse coded for clarity (i.e., higher scores indicate higher internalized weight bias). Research suggests good validity and reliability for this version of the measure [27]. Cronbach's alpha for this study was 0.90. In the current study, the WBIS-M was used as a dependent variable for comparisons

Statistical analysis

Relationships between continuous variables were examined using Pearson correlations. Chi-square tests compared categorical variables. One-way ANOVAs were used to examine categorical predictors and continuous outcome variables. In the current study, BMI range was used as the primary independent variable to compare group differences.

Qualitative data were coded by two independent raters using an emergent themes coding process. Coders conducted a preliminary review of the responses to determine themes. Agreement between coders for open-ended questions was good to excellent (kappa range = 0.7–0.9) and discrepancies were resolved by discussion. Frequencies were determined for each qualitative question, and may add up to more than 100 % as we allowed patient's with multiple responses to be coded in more than one category.

Results

Participants

Of 1000 patients, 242 patients completed and returned the survey, 758 (76 %) refused (n = 161), did not respond (n = 582), or were lost to follow-up (n = 15), yielding a 24 % response rate. The majority were female, Caucasian, and had a college or postgraduate degree. Most patients endorsed being in "Very Good" or "Good" health, and being a non-smoker. See Table 1. BMI was negatively correlated with adherence and positively correlated with internalized weight bias. Adherence was negatively correlated with internalized weight bias. See Table 2. Of normal weight patients (BMI <25), 20 % were trying to lose weight, while 63 % of overweight or obese patients (BMI >25) were trying to lose weight. Patients with higher internalized weight bias were more likely to be female [F(1,126) = 3.31, p < .05] and to report trying to lose weight [F(1,120) = 15.26, p < .001].



Table 1 Demographic Characteristics

	N	$\text{Mean} \pm \text{SD}$	Percent
Age (years)	241	65.7 ± 14.4	
BMI (kg/m ²)	222	31.1 ± 9.5	
Normal weight (<25)	57	22.3 ± 1.7	25.7
Overweight (25–30)	72	27.2 ± 1.5	32.4
Obese (>30)	93	39.6 ± 9.0	41.9
Gender			
Female	134		55.6
Race			
Caucasian	235		98.7
Education			
High school graduation	56		23.5
College graduate	68		28.6
Postgraduate degree	87		36.6
Smoking status			
Non-smoker	225		94.5
Health status			
"Good"	73		31.1
"Very Good"	93		39.6
Mod-Stren PA (GLTEQ)	132	32.3 ± 33.3^a	
Adherence (MOS)	132	4.4 ± 1.2^{b}	
Internalized Weight Bias (WBIS)	130	3.0 ± 1.5^{c}	

Data are self-reported

BMI Body Mass Index, Mod-Stren PA Moderate-to-Strenuous Physical Activity, GLTEQ Godin Leisure-Time Exercise Questionnaire, MOS Medical Outcomes Study adherence questions, WBIS Weight Bias Internalization Scale

- ^a Sufficiently active
- ^b Adherent "a good bit of the time

Table 2 Correlations between BMI, activity level, adherence, and Internalized Weight Bias

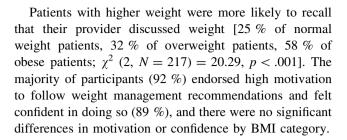
	BMI	Activity	Adherence	Weight bias
BMI	1.00			
Activity	-0.04	1.00		
Adherence	-0.30**	0.12	1.00	
Weight Bias	0.34**	-0.01	-0.30**	1.00

Activity is measured by the Godin Leisure-Time Exercise Questionnaire (GLTEQ [25, 26])

Adherence is measured by the General Adherence items from the Medical Outcomes Study (MOS [27, 28]); Weight Bias is measured by the Modified Weight Bias Internalization Scale (WBIS-M [29]) *BMI* Body Mass Index

** p < .01

Aim 1: Examine from patients' perspective, whether their internal medicine provider discussed weight management, and how motivated and confident patients felt to follow through with these recommendations.



Aim 2: Gather patient perceptions of weight-related conversations that took place during the visit.

Of participants who recalled discussing weight, patients with higher BMI were more likely to report that their provider made recommendations for weight loss [14 % (N = 2) of normal weight patients, 73 % (N = 16) of overweight patients, 82 % (N = 44) of obese patients; $\chi^2(2, N = 86) = 27.93, p < .001$]. Eighty-seven patients responded to the open-ended question regarding provider recommendations. See Table 3 of those who responded, the most commonly reported recommendation was dietary changes (in general) (N = 50, 58 %). Forty percent (N = 35) of patients reported that their provider recommended physical activity. Twenty-nine percent (N = 25)of patients recalled that their provider discussed both dietary recommendations and physical activity. Interestingly, despite literature suggesting the benefits of selfmonitoring for long-term weight management [28], only 6 % of patients reported that their doctor recommended it.

One hundred fourteen patients responded to the openended question related to taking action in response to their provider's weight loss recommendations. See Table 3. Of those who responded, 54 % percent reportedly made dietary changes in response to their provider's recommendations (N = 61). Forty percent made activity/exercise changes (N = 46).

Participants were also asked to describe how it felt for their provider to discuss weight (see Table 3); 121 patients responded, with most patients feeling neutral about these conversations (N = 57, 23.7 %) 18 % felt positively about the interaction (N = 44), and 17 % felt negatively (N = 16). Of those who felt the interaction was negative, a subset of patients even endorsed feeling discriminated against.

Aim 3: Gather patient recommendations for future weight-related discussions.

Patients of all weights would like their provider to be "very direct/straightforward" when discussing weight (74%), and 58% would be "not at all offended" if they were diagnosed as "overweight or obese." Most participants (63%) reported being "extremely comfortable" discussing weight with their health care provider. Compared to patients in the normal weight (16%) or



^c Neutral agreement with questions, WBIS mean score is consistent with validation studies [22, 29] and is representative of level of weight bias in general population

Table 3 Qualitative Responses

Question 1: Provider recommendations (N = 87)

Dietary changes

Physical activity

Question 2: Actions in response

to provider recommendations (N = 114)

Dietary changes

Physical activity

Question 3: How it felt for provider

to discuss weight (N = 121)

Neutral response

Positive response

Negative response

Stigmatized/discriminated

Question 4: Most helpful techniques (N = 79)

Advice/education

Open discussion

Encouragement/support/validation

Question 5: Examples of how patients would like provider to discuss weight (N = 141)

Specific advice/recommendations

Direct feedback

"Go back to basics of counting calories/points/portion size"

"Eat moderately and sensibly"

"1 h per day exercise"

"Water/pool exercise"

"I continued to eat the same foods except in smaller portions"

"Ate more fruits and vegetables"

"Increased exercise"

"Walk on the treadmill and outside"

"Fine, I've heard it a lot"

"Ok, I have always been overweight so am used to it"

"I was comfortable and I believe he wants to help"

"His suggestions, presentation, and concern were wonderful"

"Hard, shameful"

"She told me things I already know and am trying to work on, but made me feel bad about it"

"I have issues with weight due to medical problems; doctors are very discriminating/biased when someone is heavy"

"Used visual aids and the plate method"

"Showing me meal plans, giving examples"

"Candid conversation"

"The doctor sympathized with my concerns and stated that he knows how hard it is to get time to exercise"

"Give me charts to follow as to what are carbs, tell me what vegetables and fruit are the best to use. Tell me what not to eat"

"Be as direct as possible"

"Prefer straight talk"

overweight (19 %), patients in the obese category more frequently indicated that they wanted their providers to "discuss weight sensitively" (46 %).

Of the 79 patients who responded, when asked to describe what techniques the patient's provider used that were most helpful (see Table 3), the vast majority appreciated advice or education (N = 43, 54%). An open discussion or conversational approach (N = 14, 18%) and encouragement, support, or validation (N = 13, 17%) were also commonly discussed as helpful.

Patients were also asked to give an example of how they would like their provider to discuss weight/weight loss with them. One hundred forty-one patients responded to this question, with highly variable examples given. Most common examples were consistent with giving specific advice or recommendations, (N = 51, 36%), while examples of providers giving "direct feedback" were also

common (N = 36, 26 %). See Table 3. Finally, participants were asked to indicate what term they would prefer their provider to use when referring to their weight status. Results were varied, but of the 138 who responded to this question, 58 (42 %) reported preferring the term "overweight." Eighteen percent of patients (N = 26) reported a preference for weight defined in terms of target weight ranges (e.g., "healthy," "optimal," "normal" weight).

Aim 4: Examine the impact of internalized weight bias on perceptions and recommendations.

Patients with higher levels of internalized weight bias were most likely to report that their provider discussed weight during their medical visit [F(1,125) = 18.20, p < .001] and that their provider made recommendations for weight loss [F(1,74) = 13.95, p < .001]. Contrary to the study hypotheses, patients with higher levels of



internalized weight bias were not more likely to recommend that their provider discuss weight directly/harshly (p = 0.118), and did not endorse more or less comfort when discussing weight (p = 0.784).

Discussion

Results from this suggest that about half of overweight and nearly 3/4 of obese patients recalled that their provider discussed weight and/or made weight loss recommendations during their recent medical visit. The majority of patients felt motivated and confident in following through with their providers' recommendations. For those that did report receiving instruction, most recommendations involved dietary or physical activity changes. Most patients felt neutrally about having weight-related conversations with their provider, although some reported experiencing stigmatization. The majority of patients reported desiring their provider to be direct/straightforward when discussing weight, and about half would not be offended by being diagnosed as overweight or obese. Patients with higher BMI were more likely to want their provider to discuss weight sensitively. Internalized weight bias was not related to patient preference for how their doctor communicated about weight with them, but was related to BMI, adherence, and motivation.

This study provides several novel findings, as well as corroborates previous results. As indicated in previous literature [4, 5], results suggest that providers are discussing weight with patients, especially those meeting criteria for obesity. These findings are somewhat encouraging given numerous initiatives directed toward primary care/internal medicine providers to improve their efficacy with providing weight loss recommendations to patients [29], yet it is clear that more work needs to be done in this area. In terms of recommendations, most recalled providers discussing dietary or physical activity changes, which is promising given previous findings that patients may not be getting even these most basic recommendations [30]. However, it is important to recognize that this may not be sufficient for patients who are already highly knowledgeable about dietary and physical activity needs for weight loss. These recommendations also are focused entirely on patient's control of their weight, not acknowledging the multifactorial etiology/treatment needs for weight management, which could be stigmatizing as has previously been described [31].

Another addition to the literature from this study was the finding that most patients feel neutrally about weight-related conversations and patients appreciated advice and education on weight loss. This knowledge could help providers be more comfortable with these challenging

discussions. Unfortunately, as in previous research, results from this study suggested that some patients do experience weight-related stigmatization from providers [11, 32]. While the proportion of patients who acknowledged experiencing stigma was relatively small in this study, previous research has found that this is actually quite a common experience for patients [18], and clearly hinders their ability to seek and achieve quality healthcare. Results also provide important recommendations about how direct/ sensitively patients would like their doctor to discuss weight. A wealth of literature and tools for good communication about weight and how to achieve sensitive communication is available, including from The Rudd Center (http://www.uconnruddcenter.org/) [33].Consistent with previous research, this study confirmed that a commonly preferred label that patients prefer when discussing weight is "overweight," [34, 35]. Additionally, "weight," "BMI," "weight problem," "excess weight," "unhealthy body weight," and "unhealthy BMI" have all been previously identified in the literature as more positive terms for obese weight status [35].

Original hypotheses regarding the impact of internalized weight bias on preferences for provider communication about weight were not supported. It is unclear why hypotheses were not supported in this study; however, average MWIBS scores were 3.0 with a SD of 1.5, meaning most participants had relatively low levels of internalized weight bias without much variability. Continued research in this area with other populations that may have higher level of internalized weight bias is warranted. While it may be tempting for providers to follow patients' lead with how to best communicate about weight, for those patients with high levels of self-hatred of their own body, doing so may not result in desired outcomes.

Strengths of this study include the utilization of both quantitative and qualitative assessment, as well as in gathering patient recommendations for engaging and effective conversations. Given the numerous barriers that exist for providers when discussing weight management with patients [4], these insights may provide meaningful data to support increased patient and provider efficacy and satisfaction around these discussions. Additionally, this study furthers the literature on barriers to weight-related discussions by examining patient-centered factors that may impact these discussions (e.g., internalized weight bias).

Despite these strengths, several limitations exist including a relatively low response rate (24 %), and patient self-report data. Furthermore, patients in this study described themselves as relatively active and healthy compared with the general population, although without direct assessment of their health behaviors it is possible that patients may have been presenting themselves in a more favorable light. Similarly, there is literature to



suggest that self-reported height and weight are underestimated at the higher end of the BMI spectrum [36] and may have impacted findings in this study; garnering of actual weight data may have increased or decreased strengths of the findings presented here. Further, the sample was primarily Caucasian and college-educated, which may limit the generalizability of these findings to other populations.

Results from this study may inform providers about how their conversations about weight are received by patients, and which factors (e.g., level of internalized weight bias) may necessitate modification of their more general approach for discussing weight management.

Generally, this study suggests that patients have important preferences that we should be mindful of when discussing weight/weight loss. Communicating about weight with patients is needed and desired by patients; however, doing so sensitively with those at higher weight is essential. Patient-centered barriers to these conversations or to adherence with recommendations are often overlooked, but likely represent important areas of study. Additionally, studies utilizing multi-method assessment, including in vivo documentation and coding of actual provider-patient conversations, are important in furthering our understanding of best practices for these important discussions.

Compliance with ethical standards

Funding This study was funded by the Mayo Clinic Department of Medicine.

Conflict of interest All authors declare no conflicts of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from all individual participants included in the study.

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