


ORIGINAL ARTICLE

Preferences for physician weight status among women with overweight

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Summary

Background

Women with overweight experience stigma in clinical interactions. Emerging evidence suggests that one near-term approach to offset the negative consequences of weight stigma could be to capitalize on benefits of patient–physician weight concordance. However, it is likely that patient attitudes towards physicians with overweight are complicated and multifaceted and may include stigmatization of providers with overweight.

Methods

Two-hundred ninety-eight women with overweight completed an online questionnaire and indicated preference for a physician who is ‘overweight’, ‘not overweight’, or indicated no preference. Participants provided reasons for their choice and answered questions about their weight-related beliefs and experiences.

Results

The majority of women indicated no weight preference (63%), and a portion (36%) of the sample explicitly preferred physicians who are not overweight. Reasons provided for these preferences were primarily based on stereotyped notions of physician aptitude based on weight. Compared with having no preference, those who preferred physicians who are not overweight had fewer previous negative weight-related physician interactions and had increased beliefs about the controllability of weight.

Conclusions

These findings elucidate patient attitudes towards physicians with overweight in a sample at increased risk for weight stigmatization. Findings underscore the need for stigma-reducing interventions so that clinical experiences for both women and physicians with overweight can be improved.

Keywords: Patient preferences, patient–physician interaction, weight stigma.

The negative consequences of physicians’ stigmatizing attitudes towards people with overweight are well documented (1–3). These pernicious effects are especially negative for women. For example, physicians report reluctance to conduct preventive health procedures on women with overweight (4), and women with overweight sometimes delay or forego medical treatment due to perceiving such biases (5,6). To address this crucial issue, researchers are designing and evaluating interventions to reduce weight bias among healthcare providers (7–9).

These efforts show promise, but will take time to produce change due to the pervasive nature of stereotyping in clinical interactions (2). Additional approaches to improve healthcare experiences for women with overweight are needed.

Emerging research evidence suggests that one potential approach could be to capitalize on benefits of patient–physician weight concordance. With increasing numbers of physicians with overweight in medical contexts (10,11), matching patients with overweight with

physicians of overweight status might not only become more feasible but may also occur naturally with increasing frequency. Providers with overweight generally hold fewer negative attitudes towards patients with overweight (12,13) and may therefore provide a less stigmatizing clinical atmosphere. Additionally, patient-provider concordance on other characteristics such as race and gender is linked to positive outcomes, such as greater odds of receiving weight counselling and increased satisfaction with physician care (14,15). Finally, a recent study demonstrated that patients with overweight feel uncomfortable with and devalued by physicians who emphasize their own fitness (16). Taken together, these studies suggest that the coupling women with physicians of a similar weight status could be a unique, near-term approach to reduce perceived stigma, increase perceived empathy, and subsequently improve clinical encounters for these patients.

Despite the potential benefits of patient-physician weight concordance, little is known about the attitudes and preferences of women with overweight towards physicians with overweight. Indeed, previous findings are difficult to interpret. While one study found that patients with overweight are more likely to trust the diet advice of physicians with overweight (17), other studies showed that lean providers are preferred: Patients have greater confidence in, are more likely to follow health advice from, and indicate greater desire to switch to lean, vs. overweight, providers regardless of their own BMI (18,19). While it is possible that patients accurately perceive that physicians with overweight feel less comfortable providing dietary advice and are less likely to do so (20), it is also possible that weight management would be improved with overweight providers as patients might also feel more comfortable discussing weight with them. Patient attitudes towards physicians with overweight are thus complicated and multifaceted, with competing acknowledgement of the potential benefits of a shared weight identity (15,21), alongside weight bias directed at others with overweight (22). The inconclusiveness of extant findings merits further research in this area. Moreover, the complicated nature of these attitudes emphasizes the need for a deeper look, including patient-generated qualitative reports.

Although weight stigma is experienced by both men and women, women comprise a critical group in terms of weight stigma in healthcare (23) and could have attitudes that reflect their unique socio-cultural relationship with excess weight (24). Previous studies have shown the importance of distinguishing weight attitudes based on gender, because women are more likely to experience weight discrimination (25). As such, it is important to identify the unique attitudes of women with overweight given their increased risk for weight stigma in healthcare (25).

The current study aims to (1) examine the extent to which women with overweight prefer physicians of various weight categories, (2) explore participant-identified reasons for preferring physicians of a certain weight, and (3) identify individual-level differences that explain variability in these preferences. Due to the exploratory nature of the current study, no a priori hypotheses were made about the direction or magnitude of these attitudes and preferences.

Materials and methods

Participants

Participants were recruited from the Washington, DC metropolitan area in the USA in 2012–2013 through flyer and internet postings and word of mouth. Advertisements described the study as being for women with BMI of 25 or higher. Designation as 'overweight' based on CDC criteria for BMI calculated from self-reported height and weight was required for study eligibility, as was self-identification of being overweight. Three hundred forty-seven adult females with overweight were deemed eligible for a larger experimental study investigating factors influencing clinical weight management (26) from which data were analysed for the current report. Participants were recruited regardless of whether they were treatment seeking. Two hundred ninety-eight adult women ultimately completed the online survey (completion rate = 86%). Participants were compensated \$75 by check at the conclusion of the study. This study was approved by the Institutional Review Board of the National Human Genome Research Institute.

Measures

Participant characteristics

Demographic variables were collected and included as covariates in subsequent analyses. These included self-reported age in years, race (categorized as Black people/White people/other) and education status (dichotomized as college graduate/not). BMI was calculated as a continuous variable from self-reported height and weight. We included these demographic variables as covariates because of their relationship with participant attitudes and beliefs.

Previous negative weight-related experiences

A battery of 10 Likert-type scales about the frequency of previous negative weight-related experiences with physicians was used from a previous study (27). These items

were developed to measure how often patients experienced negative interactions with physicians based on weight, and include questions like “I feel I have been treated disrespectfully by the medical profession because of my weight”. Participants were asked to respond to all questions on a scale from 1 = always to 5 = never. We excluded one item present in the original publication that was conceptually different (“doctors have told me that I need to lose weight without asking them”), and the remaining nine were averaged into a single measure that converged onto one factor that showed good reliability ($\alpha = 0.88$).

Weight controllability

Participants were given a three-item subscale of the CONNECT instrument (28) pertaining to beliefs about weight controllability ($\alpha = 0.84$). The CONNECT instrument was created to measure patients’ explanatory models of disease and includes six subscales. The average score on the controllability subscale (e.g. “I have the power to improve my weight problem”, 1 = strongly disagree to 6 = strongly agree) was included here.

Weight advice seeking

Participants answered one question about the extent to which they look to their doctor for weight advice on a scale ranging from 1 = ‘not at all’ to 5 = ‘great amount’ (24).

Preferences for physician weight

Participants were asked “Do you prefer to see a doctor who is: not overweight, overweight, no preference?” After responding to this item, participants provided an open-ended response explaining why they indicated this choice, regardless of which answer they gave.

Data coding and analysis

Two trained coders categorized each open-ended response. Coders were bachelor’s and master’s level research fellows, trained by the principal investigator of the study. The coders were trained on categories identified through qualitative generation of themes within the data and were blind to participants’ stated weight preference on the closed-ended item when coding open-ended explanations. Responses were coded in terms of the weight category they favoured, or in terms of discounting the weight category they did not favour. For example, a response that listed a perceived negative characteristic of a provider with overweight (e.g. that they must not be knowledgeable about weight management as they are unable to control their own weight) was coded as

a reason to prefer a physician who is not overweight (due, in this case, to their superior competence). Refer to Table 1 for examples.

Coders individually coded the data in successive chunks of 20% until a kappa value of 0.6 was reached, at which point one coder finished the remainder of the dataset. Discrepancies were resolved through discussion between coders. If participants listed multiple reasons for their explicit weight preference, the response was coded into multiple categories. Frequency statistics for these codes and examples responses can be found in Table 1.

All scale distributions and demographic variables were examined for skewness, outliers and multicollinearity. No data were excluded for missingness nor outlier status. Lowess regression showed that the relationship between previous negative weight-related experiences and expressed preference was non-linear. Because the association was positive before a breakpoint at the 50th percentile and negative after the breakpoint of the scale, the experience scale was represented as a spline that was continuous everywhere, and linear except for one break at the 50th percentile of the scale (29). This breakpoint conceptually separates participants whose previous negative experiences were negligible from those who reported negative experiences.

A binomial logistic regression was run, with explicit preference for physician weight regressed on the negative experience scale, weight controllability, weight advice seeking and BMI (Table 2). Participants infrequently preferred an ‘overweight physician’ (1%, $n = 4$), so these participants were excluded from logistic regression analyses. As such, the dependent variable used was ‘not overweight’ preference vs. no preference. Educational status, race and age were included as covariates in the model.

Results

Descriptive characteristics

Participants had a mean BMI of 33 kg/m² ($SD = 7.47$) and mean age of 34.61 years ($SD = 9.57$). The racial breakdown of the sample was 56% Black people, 28% White people and 16% other. The sample was 8% Hispanic people.

Open-ended responses

Of the 298 participants, 36% ($n = 106$) explicitly preferred a not overweight physician, 1% ($n = 4$) explicitly preferred an overweight physician, and 63% ($n = 188$) explicitly indicated ‘no preference’. Thirty-seven percent ($n = 110$)

Table 1 Reasons indicated for weight preference by explicit preference on the closed-ended item

	Closed-ended preference for physician weight			Total	Example
	Not overweight, N = 121	Overweight, N = 3	No preference, N = 26		
Open-Ended Reasons for Preference					
Reasons for preferring a physician with overweight					
Competence: Physicians with overweight are more knowledgeable or competent					
Empathy: Physicians with overweight understand the struggles of being overweight	1 (100.0%)	3 (100.0%)	10 (71.43%)	14 (77.77%)	"If a doctor is overweight, he/she knows firsthand what it may be like to struggle with weight"
N reasons by closed-ended weight preference for those who preferred an overweight physician	1	3	14	18	
Reasons for preferring a physician who is not overweight					
Competence: Non-overweight physicians are more knowledgeable or competent					
Role model: Non-overweight physicians serve as examples	21 (17.50%)	0	2 (16.67%)	23 (17.42%)	"How can I take health tips from someone who cannot manage their own weight? They obviously do not know what they are talking about."
Health: Non-overweight physicians are healthier	37 (30.83%)	0	1 (8.33%)	38 (28.79%)	"I think doctors should be role models for their patients, and live by example, and show their patients that what they preach is possible"
Priorities: Non-overweight physicians are more likely to prioritize weight in healthcare	3 (2.50%)	0	1 (8.33%)	4 (3.03%)	"[I] refuse to take advice from someone who is also not healthy"
Hypocrisy: Non-overweight physicians practice what they preach, unlike overweight physicians	23 (19.17%)	0	3 (25.0%)	26 (19.70%)	"I feel like an overweight doctor does not value weight control as part of health as much as a healthy weight doctor and therefore will not make it a priority in my care."
<i>Total N by closed-ended weight preference for those who preferred a not overweight physician</i>					
<i>Total reasons by closed-ended weight preference</i>	120	0	12	132	"... I would not want to pay to be attended by someone who cannot practice what he preaches."
	121	3	26	150	

Counts indicate the number of reasons given such that a single participant could give more than one reason.

^aTotal responses for that reason category. Because participants who provided multiple reasons could be coded into multiple categories, this column represents the total number of times each row's qualitative reason was specified.

Table 2 Means, standard deviations and results of logistic regression: not overweight vs. no weight preference (referent group)

Independent variables	Mean (SD)	Range	Logistic regression results	
			Weight preference OR	95% CI
(Intercept)			0.01**	0.01–1.57
Negative experience, negligible	1.38 (.32)	1–2	3.65**	1.60–8.50
Negative experience, >negligible	2.87 (.67)	3–5	0.13**	0.04–0.44
Negative experience, all participants	2.16 (.94)	1–5	—	—
Beliefs about weight controllability	5.22 (.86)	1–6	1.59**	1.14–2.26
Seek weight advice from physician	2.42 (1.29)	1–5	1.07	0.88–1.32
BMI	34.38 (7.51)	25.05–69.50	0.93*	0.89–0.98
Race (referent = White people)				
Black people			2.22*	1.15–4.41
Other			1.75	0.77–3.96
Graduated college (referent = yes)			1.58	0.89–2.82
Age	34.58 (9.54)	20–50	1.03*	1.00–1.06

*Significant at .01.

**Significant at .001.

of the participants provided an explanation for their choice. Open-ended explanations in support of a not overweight physician included answers such as “I think doctors should be role models for their patients, and live by example, and show their patients that what they preach is possible”. Explanations in support of overweight physicians were of the following nature: “If a doctor is overweight, he/she knows firsthand what it may be like to struggle with weight”. More example responses can be found in Table 1. Eighty percent of the explanations came from those with an explicit preference for not overweight ($n = 88$), 17% from those with no preference ($n = 19$), and 3% from those with an overweight preference ($n = 3$). Given that answers were free response, participants could provide multiple reasons for their preference; the average number of reasons per participant was 1.42. From here on, stated *ns* refer to number of reasons rather than number of participants. Two percent ($n = 3$) of the provided reasons came from those who stated an overweight preference, 17% ($n = 26$) from those with no preference and 81% ($n = 121$) from those with a not overweight preference. It is notable that 53% ($n = 14$) of the reasons provided by participants with no preference were in support of an overweight physician.

Coding of these open-ended explanations can be found in Table 1, which reveals that most reasons supported preference for a physician who is not overweight (88%, $n = 121$). Nineteen percent of the participants with no preference ($n = 5$) provided qualitative explanations supporting both not overweight physicians and those with overweight. The most frequently cited reasons for preferring a physician who is not overweight were (1) competence (31%, $n = 41$), or the belief that physicians who are not overweight are more knowledgeable and

capable, and (2) the belief that not overweight physicians are healthier (29%, $n = 38$). Also notable was the frequent mention of role modelling (17%, $n = 23$) or the belief that not overweight physicians can be role models with respect to weight. Coding also revealed that empathy (78%, $n = 14$), or the belief that physicians with overweight can better relate to weight issues, was the most frequently cited reason for preferring a physician with overweight.

Logistic regression outcomes

Table 2 shows full results of the logistic regression, which compared the log odds of preferring a not overweight physician compared with no preference on the closed-ended item. Substantial previous negative weight-related experience with a physician (those with a mean score above the breakpoint) was associated with having no preference with respect to physician weight (OR = 0.12, $p < .001$). Additionally, there was a significant BMI effect, indicating that increased BMI was associated with decreased preference for a not overweight physician (OR = 0.93, $p < .01$). In other words, if patients were heavier or had experienced stigma from a healthcare provider in the past, they were less likely to state a preference for a not overweight physician and more likely to report no preference. Furthermore, increases in the controllability scale (higher control beliefs) were associated with increased odds of preferring a not overweight physician (OR = 1.59, $p < .001$). Desire to address weight management with one's physician was not significantly related to preference for a not overweight physician (OR = 1.07, $p > .05$).

Discussion

Substantial research has shown that patient overweight negatively influences the quality of healthcare (30) and that women are treated differently because of weight in clinical settings (31–35). However, much less is known about women's attitudes towards healthcare when the physician is of overweight status. Given the possibility that patient–physician weight concordance could be one avenue to reduce patients' perceived weight stigma, it is important to understand preferences for physician weight categories among women with overweight. Such research is especially relevant in diverse samples, as individuals of intersecting, stigmatized identities are at heightened risk of the negative healthcare consequences associated with overweight (36,37). The current study addresses both issues by examining preferences among a diverse sample that includes both Black and White women with overweight. Furthermore, identifying the reasons for these preferences sheds light on underlying attitudes that may influence the clinical interaction, and can be used in efforts to reduce stigmatization of healthcare providers with overweight.

The majority of women in the sample (63%) stated that they had no preference with respect to physician weight status. Previous studies found that patients with overweight are, similar to their lean counterparts, less likely to follow health advice from physicians with overweight (18) and that patients with overweight report mistrusting physicians with overweight (19). However, our results suggest that these attitudes do not generally extend to explicit preferences for physician weight. Even so, only four participants in our sample (1%) explicitly preferred physicians with overweight. Given the potential benefits of patient–physician weight concordance, this lack of desire for a shared weight identity with one's physician was surprising. Either barriers prevent women with overweight from endorsing a preference for physicians with overweight, or such a preference is truly rare.

It is therefore notable that over half of the reasons provided by those with no preference supported a physician with overweight. Some of those participants (19% of this group) provided qualitative explanations supporting both not overweight physicians and those with overweight. The remaining (majority) of this group provided only an explanation in support of a physician with overweight. In fact, a higher proportion of this sample endorsed notions of competence in support of a physician with overweight (41%) compared with those with an explicit preference (30%). That these participants were unwilling to explicitly endorse a physician with overweight on the closed-ended item may be related to the fact that individuals often maintain a higher evaluation and selection standard for

people from stigmatized groups (38). In other words, although these participants were aware of the potential benefits of having a physician with overweight, these reasons were less likely to be judged as sufficient to explicitly endorse a preference for one. Future research is needed to explore physician choice. However, the pattern seen here could translate into a reluctance to choose to receive care from a physician with overweight despite perceiving benefits of doing so.

We also found a small effect such that increased participant BMI was associated with decreased likelihood of preferring a not overweight physician, as compared with having no preference. These results are surprising given findings from a previous study that showed that anti-fat attitudes towards physicians do not change as a function of patient BMI (19). Given our unique sample of only women with overweight, the current study has increased sensitivity among higher BMIs and may provide a reason for future work to investigate whether women with greater BMI's, (particularly extremely high BMI's), have lower anti-fat attitudes towards physicians with overweight.

Approximately one-third (36%) of our sample explicitly endorsed a preference to receive care from a not overweight physician. Although not the majority of the sample, these responses deserve attention due to the potentially negative ramifications of explicit stigma against physicians with overweight. Moreover, prior research suggests that Black women stigmatize weight less than White women (39). This makes the results presented herein somewhat unexpected given the high representation of Black women in the current study. The most frequently cited reason for preferring a not overweight physician was related to competence: i.e. that being of not overweight status is associated with increased ability to practice medicine. These results are consistent with the broader literature documenting bias against people with overweight among those who are themselves overweight (40). Furthermore, participants were more likely to prefer not overweight physicians, rather than having no preference, to the extent that they believe weight is controllable. This finding underscores associations between explanatory models of weight and bias, which suggest that people who believe weight is controllable have higher stigmatizing weight attitudes (41). The blame-oriented nature of the reasons stated for preferring a non-overweight physician in the current study thus provide further support for the supposition that those who believe weight is controllable have increased stigmatizing attitudes. In all, participants who explicitly preferred not overweight physicians frequently used established stereotypes, both in favour of not overweight and against overweight, to justify their preference. The fact that even

a third of the sample had such explicit preferences is noteworthy given potential social desirability against stating a weight-based preference for healthcare professionals. That the current study did not examine implicit preferences is in line with previous research in this area (21) and lends support for future research on implicit preferences as well.

Along these lines, relative to having no preference, many participants indicated that not overweight physicians are preferable because they are positive weight-related role models who prioritize weight in healthcare. This contrasts with our finding that participants were actually no more likely to express a preference for a not overweight physician when they reported looking to their physician for weight care. Indeed, participants frequently cited weight management-related reasons for preferring a not overweight physician, but at the same time indicated very low levels of interest in engaging in weight management with that physician.

Despite the insight garnered from the current study, limitations persist. The sample size was insufficient to investigate factors associated with explicitly preferring a physician with overweight, because endorsing such a preference was rare. Furthermore, we only explored explicit preferences, and future research should investigate implicit attitudes as well. Additionally, the fact that only 40% of the sample answered the open-ended question is likely due to the overwhelming indication of no preference on the closed-ended item. In addition, participants may have been more likely to generate weight management-based reasons for their preferences as the larger trial was related to weight and weight management in the medical setting. Prior research has shown that individuals underutilize weight management in healthcare (42), and thus may be unlikely to generally consider weight management-related factors when choosing a physician. However, weight management is likely to be the domain in which physician weight is considered most relevant. As such, the current results may be reflective of patient attitudes in situations in a number of relevant situations, such as when a patient encounters a provider with overweight, when the patient is particularly concerned with weight, or when a patient desires weight care. Another limitation is that the current study is based on stated preferences rather than actual choice. Future research should explore processes that govern real-world choices. Finally, given that physicians are also targets of weight stigma, future research should investigate how these negative patient attitudes influence communication and outcomes in the clinical encounter.

To build successful stigma-reducing interventions, we must first identify the nature of associated biased attitudes (43). The findings from the current study can

therefore be applied to develop interventions to improve the experience of healthcare providers with overweight and to avoid the potential negative influences of stigma on clinical interactions (31). For example, the negative attitudes elucidated here that are held by many participants (e.g. that physicians who are not overweight are more competent) could be directly addressed in interventions. Similarly, patient or public health information campaigns could address unfounded stereotypes of physicians with overweight or could emphasize that physicians with overweight are likely more empathetic to patient's weight struggles. Furthermore, the information reported may help physicians with overweight understand and potentially circumvent some of the biases that may be operating in clinical interactions. From the patient perspective, these results explain variability in weight preferences among women, and may therefore be used to identify certain women who might benefit from patient–physician weight concordance, and those who may need stigma-reducing interventions. Through these routes, we may improve patient–physician interactions for both patients and physicians with overweight.

Conflict of Interest Statement

No conflict of interest was declared.

Author contributions

Susan Persky conceived and carried out all data collection. Susan Persky and Megan Goldring analysed data. Megan Goldring generated all figures and conducted the literature search for the manuscript. Megan Goldring wrote the first draft of the paper and Susan Persky contributed heavily to the writing process.

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