Published in final edited form as:

W V Med J. 2016 ; 2016(1): . doi:10.21885/wvmj.2016.19.

Patient Attitudes toward Weight Related Discussions in Rural Appalachian Primary Care Clinics

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Abstract

Purpose: West Virginia (WV) consistently has one of the highest rates of obesity, nationally, yet previous studies suggest that conversations about weight with providers are infrequent. This study's aim was to determine frequency and type of weight-related discussions occurring in WV primary care clinics and whether discussions differed according to weight status.

Methods: A cross-sectional survey was completed by patients in rural primary care practices. Participants answered questions related to demographics, obesity related illnesses, experience receiving a physician mediated discussion, and attitude and beliefs related to weight.

Results: Among the total of 490 surveys collected, a little more than half of the participants (56.9%) have discussed weight with their physician; a majority of participants (89.5%) thought a physician should tell risks associated with an unhealthy weight; 78.3% participants felt weight loss is important to them; 86.1% participants believed weight affects their health. Participants with obesity were more likely than participants who are overweight to discuss weight with their physician (71.8 vs.44.0%, $p<0.0001$), and believed that their physicians helped them lose weight previously (29.4% vs 9.9%, $p<0.0001$) and can help them lose weight in the future (92.9% vs. 71.1, $p<0.0001$).

Conclusion: Physicians are often having weight related discussions with patients with obesity however this discussion happens less with overweight patients. Practitioners may want to be more attentive to addressing weight related issues in overweight patients.

Introduction

Obesity rates are alarmingly high in the United States (1–3), and the detrimental health effects of obesity continue to be ongoing problems in primary care patient populations. As the third most rural state (4), West Virginia (WV) consistently has high rates of and

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Disclaimers: None

comorbid conditions related to obesity (5, 6). Yet, patient-practitioner discussions regarding obesity and obesity-related treatments are infrequent in routine office visits (7–9). This is a crucial clinical problem because obesity is linked with many comorbid conditions, including hypertension (10), diabetes (11–12), hyperlipidemia (13), sleep apnea (14–15), and others.

Patients frequently report that their physicians have not addressed weight concerns, with less than half of patients with obesity having had their weight addressed by their primary care provider (9). This is a significant concern because patients are more likely to want to lose weight if it is addressed by a health professional (16). Pool et al. found that, when there is patient-practitioner dialogue that included telling a patient that they had an unhealthy weight, patients were more likely to report a weight loss of five percent in the next year (17).

Understanding patient attitudes regarding how a physician addresses overweight and obesity status is important to effectively address this issue. One factor to consider in this effort is the inconsistency in recall between patients and providers about weight-related interactions.

This has led to the recommendation that physicians address specific healthy weight behaviors with patients (18). By making the discussion specific and clarifying the patient's understanding of the weight-related discussion, the patient or practitioner may have an improved understanding of the discussions that took place.

The primary purpose of this study was to determine frequency and type of weight-related discussions occurring in WV primary care clinics and whether discussions differed according to weight status. We also explored whether patient attitudes about physician-patient communication surrounding weight loss would vary by weight class.

Methods

Study Overview

This was a cross-sectional convenience sample survey completed in a broad state-wide rural WV population. Patients were recruited during June and July, 2014. A total of 620 surveys were distributed to 31 rural, primary care, practices in the West Virginia Practice-Based Research Network (WVPBRN). Practice sites were identified through externship student rural family medicine rotation placement. The West Virginia University Department of Family Medicine contacted each site to determine their willingness to participate. Patients in the waiting room prior to their provider visit were invited to take the brief survey. Inclusion criteria included being over the age of 18 and proficiency in reading English. Patients with cognitive impairments that would impact their ability to complete the survey, had significant visual impairment, or did not report their heights and weights were excluded from the study. Those that met the inclusion criteria completed the survey and dropped it into a sealed container with a mail-slot. A total of 490 participants returned their surveys out of a total of 620 surveys for a 79% response rate. The study protocol was approved by the West Virginia University Institutional Review Board (WVU IRB) as an exempt study.

Survey

The survey was adapted from Potter et al. (19) with permission from the survey originator to adapt the survey to this specific population and research. We assessed demographic

information on age, sex, height, weight, and comorbidities such as hypertension, high cholesterol, obesity, diabetes, and sleep apnea. The remainder of the survey consisted of 19 questions concerning patients' experience of receiving a physician-mediated discussion and patient attitude and beliefs concerning weight-related discussions. Among those 19 questions, 18 involved either 'yes' or 'no' responses; the other included a list of response options.

Statistical Analysis

Patient body mass index (BMI) was calculated based on self-reported heights and weights and classified into three weight groups: normal weight (BMI <25), overweight (BMI 25–29.9), and obese (BMI ≥30). Demographics, comorbidities, patients' responses to physician-patient communication, and patients' attitudes and beliefs surrounding weight loss were compared across weight groups. We used analysis of variance statistics to determine the mean differences between weight groups in age, weight, and height. We used Chi-square analysis to investigate the association between weight groups and sex, comorbidities, patient response to physician-patient communication, and patient attitudes and beliefs surrounding weight loss. When significant differences in patients' attitude and beliefs to physician-patient communication and weight loss were found, multiple Chi-square tests with Bonferroni p-value adjustment were followed to further identify which weight groups were significantly different. A p-value of less than 0.05 was considered statistically significant for all tests. SAS (version 9.3. 2012 SAS Institute Inc, Cary, NC) was used in study analysis.

Results

Demographics

Patient demographic characteristics and the comparisons between weight groups are summarized in Table 1. Among the 490 total patients, 115 (23.5%) were normal weight, 148 (30.2%) were overweight, and 227 (46.3%) were obese. The average age of participation was fifty years old (50.3 ± 16.7). Responses were from females (59.9%) more than males (40.1%). The prevalence of high blood pressure, diabetes, high cholesterol, and sleep apnea were 47.2%, 19.3%, 37.3%, and 13.2%, respectively. There were no significant differences across weight groups with regard to patient age, sex, height, or prevalence of high cholesterol. Not surprisingly patients with higher BMIs were more likely to have high blood pressure ($p < .0001$), diabetes ($p < .0001$), and sleep apnea ($p < .0001$) however it was surprising that there was not a difference in prevalence of high cholesterol across weight classes.

Patients' responses to patient-physician communication about weight

Table 2 summarizes the patient responses by weight category by the nine survey questions regarding physician-patient communication about weight. According to the total 490 responses of the survey, a little more than half of the participants (56.9%) have discussed weight with their physician; a majority of our participants (89.5%) thought a physician should tell risks associated with an unhealthy weight; 81.7% participants indicated that it makes more important to them when their physician addressed unhealthy weight concerns or BMI; 78.3% participants answered positively for the question whether weight loss is important to them; 86.1%, and 63.3% participants felt weight affects their health and

happiness, respectively. While 74% participants believed that their physician could help them lose weight in the future, only 17.4% of them thought that their physician helped them lose weight in the past.

Multiple pairwise comparisons confirmed that obese patients were more likely than were overweight patients to discuss weight with their current doctors (71.8% vs. 44.0%, $p<.0001$). Obese patients also were more likely than were overweight patients to believe previously that their doctor could help them lose weight (29.4% vs. 9.9%, $p<.0001$) and in the future (82.9% vs. 71.1%, $p<.0001$). Patients with obesity believed that their weight affected their health more than did normal weight patients (91.2% vs. 79.6%, $p=.003$) however a significant difference was not seen with patients who are overweight.

Patients' attitudes and beliefs about losing weight

The comparison of patients' attitudes and beliefs about losing weight are summarized in Table 3. There were no differences across weight groups in patients' responses to questions regarding when doctors should address weight concerns and whether or not they preferred potentially less offensive jargon for weight. Most patients across weight groups chose exercise (81.6%) and diet (80.4%) as the best methods to lose weight. Obese patients were more likely than overweight patients to use weight loss products or pills (26.9% vs. 9.7%, $p<.0001$) and preferred a referral to a weight program more so than normal weight patients (23.4% vs. 10.8%, $p=.006$).

Discussion

This study is another step to increase the understanding of the patient perceptions of patient-practitioner interaction with relation to obesity, particularly in a rural population. Although this topic has been examined, previous studies have not been in a rural, Appalachian population and may have missed the unique demographic and comorbid condition profile characteristic of this rural population with significant obesity-related health disparities. Unlike previous studies (19) this study found that patients with obesity often had discussions with their physician about their weight but overweight individuals are not as likely to recall having these discussions with their physician.

Previous research determined that physicians and obese patients disagree on whether weight concerns were discussed (18). This study examined the patient experience of receiving a physician-mediated discussion concerning their weight and patient attitude and beliefs related to weight-related discussions. Patients with obesity reported that their physician addressed obesity with them more often than overweight patients. Physicians are missing an important opportunity to discuss weight with their patients who are overweight. However, with a quarter of patients with obesity reporting not having a weight-related discussion with their doctor, there is still much room for improvement in practitioners having this discussion with obese patients also.

Our findings suggest that the overwhelming majority of patients, regardless of weight class, feel comfortable discussing weight with their physicians. Participants feel that the physician should inform them of the risks associated with unhealthy weight and that a physician

discussing weight with them makes it more important. This discussion is not happening regularly with overweight individuals in this study population. This is a significant concern that may be considered in future research and clinician training.

One possible reason some physicians do not address weight concerns with their overweight patients is that practitioners do not recognize when patients are overweight (20). Other reasons include a perceived inability by practitioners that patients will be unmotivated or unable to change current behaviors to healthy lifestyle behaviors (21). Other explanations include concerns for not having time to devote to counseling about weight management, a lack of knowledge about how to address obesity, and paucity in resources available to refer patients with obesity (22–23). These barriers to weight related discussions could be addressed through provider knowledge interventions, electronic medical record system alerts (24), and improved reimbursement for weight counseling.

Participants who were overweight and obese felt that weight loss was an important aspect of their lives and that it affected their health. Most participants wanted diet and exercise information; however, participants with obesity desired more information about weight loss programs, products, and medications than normal weight or overweight participants. This information may be useful to physicians who want to tailor patient education efforts for obese patients.

The approach that patients would prefer a physician use when addressing weight or weight status is unclear. Previous work found that patients want specific advice (19). Potter et al (2001) reported that patients would like to know their ideal weight, thus providing them with a realistic goal (19). In addition, patients wanted to know how to adjust their diet and exercise.

In relation to styles of addressing obesity, patients responded more positively to discussions of obesity when addressed as a medical condition rather than a lifestyle choice or when the discussion is framed about improving patients' understanding of the effects of weight on their health (25–26). Patients preferred more clinically-oriented terms, such as BMI and unhealthy BMI, when discussing weight. Terms that were seen by the patients as having derogatory connotations, e.g. fatness, excess fat, obesity, and larger size, were rated less favorably. These terms can disrupt a therapeutic weight related discussion between patients and practitioners (26).

Limitations to this study include a focus on rural Appalachian primary care patients; the results may not be generalizable to more urban patients, or to patients receiving specialized medical care. Moreover the study used a convenience sample of patients in rural physicians' offices, so the study sample may not be representative of the population as a whole. We had a 77 percent completion rate; however, participants willing to fill out the survey may also be those who are willing to talk about weight. Also self-report height and weight were used. Participants may incorrectly report their metrics, therefore the BMI calculation could be incorrect. Patients may have a tendency to report a lower weight than is actual (27). Thus, this study may have underreported the obesity rate in WV rural patients.

This study highlights that physicians are having weight related discussions with patients with obesity. A majority of overweight and obese participants understood that weight affects health, however these discussions are not taking place as often with overweight patients, as with obese patients. More research is needed to improve our understanding of how to best to address concerns related to patient's weight, especially overweight individuals, in the office setting.

Acknowledgments

Sources of Support: "The project described was supported by the National Institute of General Medical Sciences, U54GM104942. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH."

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Table 1.

Patients' demographics by Body Mass Index (BMI) subgroup

	N=490	BMI < 25 n=115	BMI 25–29.9 n=148	BMI 30 n=227	p-value *
Age (mean ± SD, yrs)	50.3 ± 16.7	47.1 ± 19.7	50.9 ± 16.4	51.5 ± 15.1	.06
Sex (%)					
Male	40.1	31.3	44.6	41.6	.12
Female	59.9	68.7	55.4	58.4	
Height (mean ± SD, in)	67.1 ± 4.1	66.9 ± 3.8	67.2 ± 4.2	67.1 ± 4.3	.83
Weight (mean ± SD, lbs)	195.2 ± 51.6	142.1 ± 20.1	176.7 ± 23.6	234.1 ± 44.9	<.0001
Comorbidities (%)					
High blood pressure	47.2	25.7	42.8	60.9	<.0001
Diabetes	19.3	6.1	14.3	29.1	<.0001
High cholesterol	37.3	33.3	35.0	40.7	.15
Sleep Apnea	13.2	5.3	9.6	19.6	<.0001

* Comparisons of demographic characteristics between patients in different BMI subgroups using analysis of variance for continuous variables (age, height, and weight) or chi-square test for categorical variables (sex and presence of comorbid conditions).

Table 2.

Patients' responses about physician-patient communication about weight

	N=490	BMI < 25 n=115	BMI 25–29.9 n=148	BMI 30 n=227	Chi-squared p-value
I have discussed my weight with my current doctor, %	56.9	44.0 ^b	44.0 ^c	71.8 ^{b,c}	<.0001
My current doctor can help me lose weight in the past, %	17.8	5.6 ^b	9.9 ^c	29.4 ^{b,c}	<.0001
I feel a physician should tell me risks associated with an unhealthy weight, %	89.5	91.8	90.5	87.6	.22
My doctor addressing unhealthy weight concerns or BMI makes it more important to me, %	81.7	81.1	83.6	80.9	.86
I am or would be comfortable discussing my weight with my current doctor, %	91.8	92.6	91.8	91.4	.71
My current doctor can help me lose weight in the future, %	74.0	60.0 ^b	71.1 ^c	82.9 ^{b,c}	<.0001
Weight loss is important to me, %	78.3	55.6 ^{a,b}	82.4 ^a	87.4 ^b	<.0001
My weight affects my happiness, %	63.3	59.6	68.2	62.1	.85
My weight affects my health, %	86.1	79.6 ^b	83.3	91.2 ^b	.003

Note. Sample sizes vary for responses to communication questions because of missing values.

^aBMI <25 versus BMI 25–29.9, significant; multiple pairwise chi-square comparisons procedure

^bBMI <25 versus BMI 30, significant; multiple pairwise chi-square comparisons procedure

^cBMI 25–29.9 versus BMI 30, significant; multiple pairwise chi-square comparisons procedure

Table 3

Patients' attitudes and beliefs about losing weight

	N=490	BMI < 25 n=115	BMI 25-29.9 n=148	BMI 30 n=227	Chi-squared p-value
My doctor should address weight concerns at the beginning of the visit, %	54.7	50.9	55.2	56.3	.39
My doctor should address weight concerns at the end of the visit, %	58.4	56.1	59.9	58.5	.76
My doctor should address weight concerns during discussion of related illness, %	89.5	89.5	89.4	89.5	.99
I prefer my doctor use medical terms for unhealthy weight such as BMI, unhealthy weight, and obesity, %	66.6	73.8	64.9	63.9	.10
I prefer my doctor using slang language for weight such as excess fat or large size, %	29.9	22.9	30.1	33.5	.06
Best method of weight loss for me is:					
Exercise	81.6	81.3	81.5	81.8	.91
Diet	80.4	75.0	82.7	81.8	.20
Referral to a weight program	18.5	10.8 ^b	16.8	23.4 ^b	.006
Weight loss products or pills	17.7	9.7 ^b	9.2 ^c	26.9 ^{b,c}	<.0001
Other	13.9	10.2	11.7	17.2	.10
No preference	19.0	23.0	17.3	18.1	.41

Note. Sample sizes vary for patients' attitudes and beliefs because of missing values.

^aBMI <25 versus BMI 25–29.9, significant; multiple pairwise chi-square comparisons procedure

^bBMI <25 versus BMI 30, significant; multiple pairwise chi-square comparisons procedure

^cBMI 25–29.9 versus BMI 30, significant; multiple pairwise chi-square comparisons procedure