Physician Personal Characteristics & Obesity Treatment Study

Marisa Schottelkorb, Class of 2011, with Dr. Bradley Appelhans, PhD

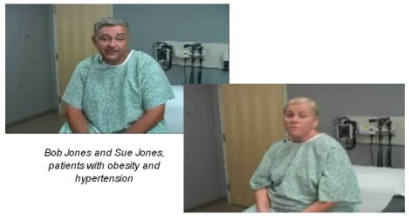
The University of Arizona College of Medicine Phoenix

Introduction

Obesity is a risk factor for cardiovascular disease, a variety of cancers, diabetes, osteoarthritis, sleep apnea, diminished mobility, and as importantly, societal stigmatization. The U.S. Preventive Services Task Force recommends that clinicians screen all adults for obesity and offer intensive counseling and behavioral interventions as needed to achieve weight loss.[1,2]

Doctors have nonproductive behaviors toward obese patients:

- Physicians spend less time educating obese patients about exercise and health than their normal-weight counterparts.[3]
- Medical professionals discriminate against the obese.[4]
- Some doctors fail to recognize obesity as a medical problem,[5] but rather as a lack of self-control, or as a result of self-indulgence or other personal failings.[6]
- Some doctors cite lack of intervention for obesity due to treatment ineffectiveness.[7,8]
- Obese female patients report very negative clinic experiences, leading to a lower rate of seeking preventive care, in addition to longer delays before seeking help for symptoms of disease, which translated into higher cervical cancer rates.[9]



Bob Jones and Sue Jones, patients with obesity and hypertension

Hypertension is a common finding with obesity. Like obesity treatment, hypertension treatment should be initiated using lifestyle modifications first, per most recent Joint National Committee on Hypertension (JNC) guidelines.

In this study, we attempted to examine how a physician's own characteristics (physician gender, weight history, and feelings toward obesity) related to the physician's proposed treatment plan and ranking of treatment goal importance in obese and hypertensive patients.

Hypothesis

We hypothesized that 1) thinner physicians would be more likely to recommend lifestyle recommendations, and less likely to prescribe medications than physicians with higher BMIs, consistent with JNC guidelines, and 2) thinner physicians would have higher scores on a measure of obesity bias than physicians with higher BMIs.

Methodology

- Internists and family physicians in the Phoenix area were recruited to be participants via email and printed fliers mailed to physician offices.
- Individuals who wished to participate followed an internet link to access the informed consent and study materials.
- Participants were randomized to watch one of two brief videos depicting a clinical encounter with a male or female obese patient presenting with hypertension.
- The patient was a 52 year-old with average BP of 150/90 mmHg (assessed twice, utilizing the correct method.)
- The patient's BMI was 32, and the patient actors had BMIs near to the reported BMI.
- Physical exam was reported to show no abnormalities.
- At this second visit, urinalysis, EKG, fasting cholesterol, fasting glucose, electrolytes, and creatinine were all within normal range.

Participant data collected:

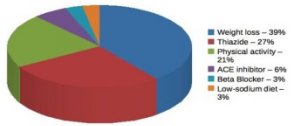
- Treatment recommendations; in a prioritized order
- Questionnaire assessing personal weight history
- Questionnaire assessing attitudes toward obesity (Antifat Attitudes Questionnaire, an independently-validated 15-item measure to assess the participant's obesity bias, shown here.[12]) The maximum score of 117 would reflect the highest degree of anti-obesity bias.

Physician Participant Characteristics

Of 81 participants, only 33 completed the entire study.

		N (proportion)	SD
Ever tried weight loss			
	No	7 (0.206)	-
	Yes	27 (0.794)	-
Tried weight loss in past year			
	No	15 (0.411)	-
	Yes	19 (0.559)	-
BMI		**Mean BMI**	**SD**
	Current	24.9	2.7
	1 year ago	25.1	2.9
	At age 25	23.0	2.3
	Highest in life	26.6	3.2
	Lowest in life	21.8	2.0

Number One Recommendation



Other treatment options not represented here include angiotensin receptor blocker, calcium channel blocker, moderation of alcohol intake, no intervention/return in 6 months, refer to specialist, renal angiogram, renal ultrasound, and other (write in.)

Anti-Obesity Bias

1 2 3 4 5 6 7 8 9

Very strongly disagree — *Very strongly agree*

Question	Statement	Mean rating	SD
1	I really don't like fat people much.	2.48	2.49
2	I don't have many friends who are fat.	4.45	2.66
3	I tend to think that people who are overweight are a little untrustworthy.	0.91	1.42
4	Although some fat people are surely smart, in general, I think they tend not to be as bright as normal weight people.	1.36	1.93
5	I have a hard time taking fat people seriously.	1.15	1.6
6	Fat people make me somewhat uncomfortable.	2.03	1.96
7	If I were an employer looking to hire, I might avoid hiring a fat person.	3.15	2.48
8	I feel disgusted with myself when I gain weight.	3.45	2.5
9	One of the worst things that could happen to me would be if I gained 25 pounds.	4.45	2.87
10	I worry about becoming fat.	3.27	2.48
11	People who weigh too much could lose at least some part of their weight through a little exercise.	7.06	2.06
12	Some people are fat because they have no willpower.	4.52	2.93
13	Fat people tend to be fat pretty much through their own fault.	3.97	2.56
14	I am satisfied with my current body weight.	5.12	3.01
15	I find myself thinking about my body weight a lot.	3.24	2.65
	Total Score (maximum: 117)	50.64	19.71

Prescribing Priorities

Intervention	Number of physicians prescribing as #1 recommendation
Weight loss	13
Thiazide	9
Physical activity	7
ACE inhibitor	2
Beta-blocker	1
Low-sodium diet	1

Take-Away Points

- **Study in which physician participants watched a video of a hypertensive, obese patient and made treatment recommendations and completed an obesity bias questionnaire**
- **Unable to achieve significance in most measures due to incomplete participation**
- **Most physicians studied recommended a drug for hypertension in addition to lifestyle changes**
- **Most physicians did NOT include all JNC-recommended lifestyle change components in their treatment plan**
- **Unable to link physician BMI or history of dieting to trends in treatment recommendations.**
- **Future work should secure complete participation to test associations with physician characteristics.**

References

1. Screening for Obesity in Adults. What's New from the USPSTF? *Agency for Healthcare Research and Quality*. December 2003. http://www.uspreventiveservicestaskforce.org/uspstf/uspsobes.htm. Accessed June 17, 2009.
2. McTigue KM, Harris R, Hemphill B, et al. Screening and Interventions for Overweight and Obesity in Adults: Summary of the Evidence for the U.S. Preventive Services Task Force. *Annals of Internal Medicine*. 2003;139(11):933-949.
3. Bertakis KD, Azari R. The impact of obesity on primary care visits. *Obesity Research*. 2005;13(9):1615-1623.
4. Puhl R, Brownell KD. Bias, Discrimination, and Obesity. *Obesity Research*. 2001;9(12):788-805.
5. Wooley SC, Garner DM. Obesity treatment: The high cost of false hope. *Journal of the American Dietetic Association*. 1991;91(10):1248-1251.
6. Price JH, Desmond SM, Krol RA, Snyder FF, O'Connell JK. Family practice physicians' beliefs, attitudes, and practices regarding obesity. *American Journal of Preventive Medicine*. November-December 1987;(6):339-45.
7. Kramer FM, Jeffery RW, Forster JL, Snell MK. Long-term follow-up of behavioral treatment for obesity: Patterns of weight regain among men and women. *International Journal of Obesity*. 1989;13(2):123-136.
8. Miller WC. How Effective Are Traditional Dietary and Exercise Interventions for Weight Loss? *Medicine and Science in Sports and Exercise*. 1999;31:1129–1134.
9. Amy NK, Aalborg A, Lyons P, Keranen L. Barriers to routine gynecological cancer screening for White and African-American obese women. *International Journal of Obesity*. January 2006;30(1):147-155.