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The Relationship of Body Mass Index on Primary Care Physician Practice Behaviors with their Overweight and Obese Patients

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Introduction

- The Centers for Disease Control and Prevention in 2010 reported that 69% of adults over 20 years of age were overweight or obese
- The 2012 Medscape Physician Lifestyle Report found 42% of male physicians and 32% of female physicians were overweight or obese
- A review of the literature by Reilly (2007) found numerous studies showing physicians are less effective at giving credible advice and health counseling when they have unhealthy lifestyle habits themselves
- Bleich, et al, (2012) found normal BMI physicians provided recommended obesity care to their patients and felt confident doing so compared to overweight physicians

Objectives

This study investigates if there is a relationship between LVHN Primary Care Physicians' BMI and their:

- overweight and obese patient practice behaviors
- self-perceptions about whether they are a good role model for weight management of their overweight and obese patients
- self-perceptions about whether overweight and obese patients have confidence in their weight management evaluation and treatment

Methods

- Study Design**
Self-administered, local, anonymous cross-sectional survey using "SurveyMonkey," distributed by email
- Participants**
Inclusion criteria: 189 Lehigh Valley Health Network Primary Care Physicians who completed the survey in February to April 2013
Exclusion criteria: incomplete survey, missing height and/or weight, consent not provided
- Instrument**
Self-designed, piloted, 21 question online questionnaire capturing demographic information and using a 5-point Likert-type scale and a 6-point ordinal scale to assess physicians' self-perceptions and overweight/obese patient practice behaviors
- Variables**
Independent – Physician BMI class
Normal: 18 < 25 kg/m²
Overweight: 25 ≤ 30 kg/m²
Obese: ≥ 30 kg/m²
Dependent – practice behaviors, self-perceptions
- Statistical Analysis**
Descriptive statistics, student's t-test and Analysis of Variance with Tukey HSD and Duncan post hoc testing using SPSS was utilized to test for differences between gender, medical degree, BMI classes and physicians' practice behaviors and self-perceptions

This study was approved by both the Lehigh Valley Health Network and the East Stroudsburg University Institutional Review Boards

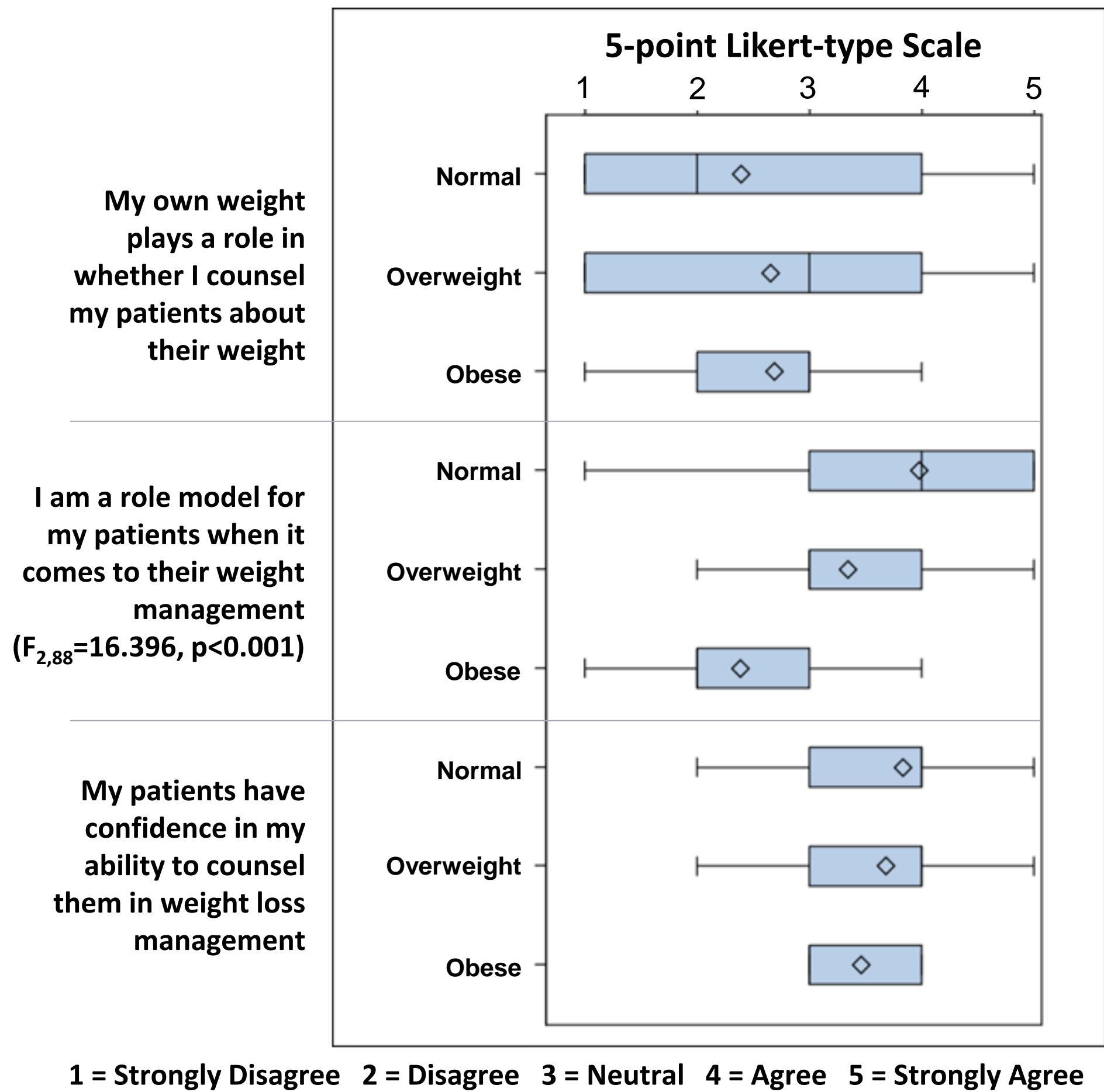
Results

- 108 surveys were completed
 - 12 surveys had incomplete responses
 - 4 surveys consent was not provided
 - 1 survey was a duplicate
- A total of 91 surveys were included in the analysis
 - Two height entries were corrected

Results (Continued)

PHYSICIAN DEMOGRAPHICS	MALE		FEMALE	
	n	%	n	%
Medical Degree Type				
M.D.	35	64%	20	36%
D.O.	18	50%	18	50%
Practice Type				
Family Medicine	29	54%	25	46%
Internal Medicine	22	71%	9	29%
Other	2	33%	4	67%
BMI Class				
Normal	20	38%	23	60%
Overweight	26	49%	9	24%
Obese	7	13%	6	16%

- There were no statistically significant differences in physicians' practice behaviors with overweight/obese patients based on BMI
- Female physicians were statistically more likely to refer to bariatric medicine and MD's were more likely to write an exercise prescription
- The only statistical difference based on BMI class was the physicians' self-perception of being a role model regarding weight management to their overweight/obese patients



Limitations

- Study used a volunteer sample, which can be affected by selection bias
- Cross sectional study looks at associations, not causation
- Physician height and weight were self-reported, which can lead to an underestimated BMI
- The survey was not a validated instrument
- Because this was an anonymous survey, there is no data on the physicians who did not participate
- Small sample size at one healthcare system, probably not generalizable/externally valid

Conclusions

- This group of primary care physicians had higher obesity rates than US physicians
- In this specific group of physicians, there were no significant differences found in physician practice behaviors based on their BMI class
- There was a statistically significant difference between physician BMI class and self-perceptions of being a role model for their patients

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