People-First Language, Demographics, and Bias Against Persons with Diabetes or Obesity

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Abstract

Background: Bias and stigma contribute to poor health in both obesity and diabetes. Weight bias has been shown to be stronger than bias against other targets, but has not yet been compared with chronic diseases like diabetes. People-first language ("a person with diabetes"), as opposed to condition-first language ("a diabetic") has been adopted when referring to some chronic diseases and disabilities, but has not been widely adopted for obesity. This study compares attitudes toward people with diabetes and obesity, and the extent to which using people-first language influences attitudes.

Methods: 800 respondents completed an online study fielded by Lab42. Participants were randomized to one of four experimental conditions, in which they were asked about a person described as one who 'has obesity,' 'is obese,' 'has diabetes,' or 'is diabetic.' Respondents completed explicit measures of bias including the Universal Measure of Bias Scale and a measure of social distance.

Results: Demographic characteristics were similar across all four conditions. Variations in race and ethnicity were controlled by multivariate analysis. People-first language had a marginal effect ($p < 0.10$) on bias and social distance toward people with diabetes, but no effect toward people with obesity. Bias against obesity was greater than diabetes ($p < 0.001$). Males expressed more bias and social distance than females towards people with diabetes or obesity ($p<0.05$). Respondents who themselves had diabetes or obesity expressed less bias ($p<0.05$). Younger respondents expressed more bias against diabetes than older participants ($p <0.05$).

Conclusions: More work is needed to identify whether people-first language can help reduce bias in the context of obesity. Gender differences in weight bias and social distance have important implications for efforts to address both diabetes and obesity.

Introduction

Bias and discrimination against people with obesity is well documented. Research has demonstrated substantial impact on personal relationships, educational attainment, professional achievement, and healthcare delivery. Studies have shown that a description of a person as "obese" is sufficient to cause discrimination in the absence of any meeting with the person in question.

People-first language has become the accepted norm in addressing people with mental and physical disabilities. APA Style calls for language in all publications to "put people first, not their disability" and to "not label people by their disability" (www.apastyle.org/manual/related/nonhandicapping-language.aspx). AMA Style[1] has similar requirements. Feldman et al[2] found that people-first language affects attitudes and behavioral intentions toward persons with disabilities.

Use of people-first language for conditions such as autism, diabetes, or asthma has become common. A verbatim search of the Internet for people-first and condition-first language yields significantly more results for people-first language than for condition-first language in each of these conditions. The results for obesity are precisely the opposite. To illustrate, Internet searches were performed using Google for "People with Autism" and then for "Autistic People," repeating the same search process for asthma, diabetes, and obesity. Results (pages found) for each search are summarized in Table 1.

Table 1: Internet Search Results for People-First and Condition-First Language

Condition/Adjective	People First	Condition First
Autism/Autistic	4,030,000	579,000
Asthma/Asthmatic	3,570,000	125,000
Diabetes/Diabetic	4,920,000	230,000
Obesity/Obese	218,000	2,710,000

The effect of referring to individuals as 'obese' has been shown to influence how individuals feel about their condition and how likely they are to seek medical care. Patients feel that referring to weight in more neutral terms, rather than labeling patients as 'obese,' is more motivating and less stigmatizing.[3,4]

The present study aimed to test the effect of people-first language on bias against people with obesity or diabetes and to compare the degree of bias against people with the two conditions.

Methods

A professional research organization (Lab42) administered an online survey to 800 adults aged 18 to 64, recruited from social media. Participation was anonymous and voluntary. Respondents receive virtual currency as an incentive to participate. The sample was quota balanced to match national population statistics.

Participants were randomized to one of four experimental conditions, in which they were asked their opinions and attitudes about a person described as one who 'has obesity,' 'is obese,' 'has diabetes,' or 'is diabetic.' All survey questions were identical; only the label of the target person varied across each condition. Respondents completed explicit measures of bias including the Universal Measure of Bias (UMB) scale[5] and a measure of social distance[6,7].

We computed descriptive statistics and examined distributions of all variables measured using SPSS Version 19.0. We assessed group differences on the demographic variables using ANOVAs and Chi-squares and accounted for them in subsequent analyses. Cronbach's alpha was computed for the summed factors on the UMB scale and the social distance assessment to assess internal consistency and reliability. Our primary analysis was to conduct ANOVAs including the outcomes of interest and covariates using the entire sample to examine whether the use of condition-first language versus people-first language, is related to explicit weight bias.

Results

Demographic characteristics, similar across all four conditions, are summarized in Table 2. Variations in race and ethnicity were controlled by multivariate analysis.

Table 2: General Demographic Information stratified by Study Group

Characteristics	Condition-first: 'obese' (N=200) % (N)	People-first: 'obesity' (N=200) % (N)	Condition-first: 'diabetic' (N=200) % (N)	People-first: 'diabetes' (N=200) % (N)	Total Sample (N=800) % (N)
Age					
18-24 years	15.5 (31)	15.5 (31)	15.5 (31)	15.5 (31)	15.5 (124)
25-34 years	23.0 (46)	23.0 (46)	23.0 (46)	23.0 (46)	23.0 (184)
35-44 years	26.0 (52)	26.0 (52)	26.0 (52)	26.0 (52)	26.0 (208)
45-54 years	21.5 (43)	21.5 (43)	21.5 (43)	21.5 (43)	21.5 (172)
55-64 years	14.0 (28)	14.0 (28)	14.0 (28)	14.0 (28)	14.0 (112)
Gender					
Male	49.5 (99)	49.5 (99)	49.5 (99)	49.5 (99)	49.5 (396)
Female	50.5 (101)	50.5 (101)	50.5 (101)	50.5 (101)	50.5 (404)
Race+*					
White	77.8 (154)	74.2 (147)	82.8 (164)	80.8 (160)	78.9 (625)
Black	8.6 (17)	6.6 (13)	2.5 (5)	6.6 (13)	6.1 (48)
Asian/Pacific Islander	7.6 (15)	9.6 (19)	5.1 (10)	6.6 (13)	7.2 (57)
Hispanic	5.6 (11)	7.1 (14)	9.6 (19)	4.5 (9)	6.7 (53)
Other	0.5 (1)	2.5 (5)	0.0 (0)	1.5 (3)	1.1 (9)
Education+					
Some HS	3.6 (7)	1.5 (3)	3.0 (6)	1.5 (3)	2.4 (19)
HS	22.8 (45)	18.5 (37)	23.7 (47)	20.0 (40)	21.3 (169)
Associate Degree/Some College	36.5 (72)	36.0 (72)	35.9 (71)	39.0 (78)	36.9 (293)
College Degree	24.4 (48)	31.0 (62)	27.3 (54)	25.0 (50)	26.9 (214)
Advanced Degree	12.7 (25)	13.0 (26)	10.1 (20)	14.5 (29)	12.6 (100)
Income+					
<$25,000	14.2 (27)	15.2 (29)	11.5 (22)	16.1 (31)	14.3 (109)
$25,000-$50,000	31.6 (60)	31.9 (61)	29.8 (57)	24.5 (47)	29.5 (225)
$50,000-$75,000	20.5 (39)	19.9 (38)	22.5 (43)	25.5 (49)	22.1 (169)
$75,000-$100,000	14.2 (27)	15.2 (29)	22.5 (43)	19.8 (38)	17.9 (137)
>$100,000	19.5 (37)	17.8 (34)	13.6 (26)	14.1 (27)	16.2 (124)

Household Profession					
Service Oriented	17.0 (34)	17.0 (34)	13.5 (27)	14.5 (29)	15.5 (124)
Other/None of the Above	83.0 (166)	83.0 (166)	86.5 (173)	85.5 (171)	84.5 (676)
Employment Status					
Employed	67.0 (134)	57.0 (114)	63.0 (126)	66.5 (133)	63.4 (507)
Student	7.0 (14)	9.0 (18)	8.5 (17)	3.5 (7)	7.0 (56)
Homemaker	10.0 (20)	16.0 (32)	13.0 (26)	15.5 (31)	13.6 (109)
Retired	8.5 (17)	8.5 (17)	7.5 (15)	6.5 (13)	7.8 (62)
Not Employed	7.5 (15)	9.5 (19)	8.0 (16)	8.0 (16)	8.3 (66)
Diabetes Status					
Yes	8.0 (16)	9.0 (18)	4.0 (8)	6.5 (13)	6.9 (55)
No	92.0 (184)	91.0 (182)	96.0 (192)	93.5 (187)	93.1 (745)
Perceived Weight Status+					
Underweight	7.1 (14)	5.1 (10)	4.5 (9)	5.5 (11)	5.5 (44)
Average weight	56.1 (111)	48.0 (95)	51.8 (103)	51.8 103)	51.9 (412)
Overweight	32.8 (65)	42.4 (84)	36.7 (73)	35.7 (71)	36.9 (293)
Obese	4.0 (8)	4.5 (9)	7.0 (14)	7.0 (14)	5.7 (45)
Prefer not to say					
BMI +					
Mean (SD)	26.8 (7.5)	27.1 (6.5)	27.0 (6.7)	27.2 (7.2)	27.0 (7.0)

*p≤0.05; **p≤0.01; ***p≤0.001

+ does not add up to the total sample of n = 800

Among the diabetes/diabetic sub-sample (Table 3), older respondents were less likely to have a high UMB score in comparison to their younger counterparts. Similarly, women were less likely than males to exhibit high bias. Individuals who currently do not have diabetes were more likely to exhibit high bias. There was a marginal association detected such that individuals in the people-first language group were less likely to have a high UMB score compared to those assigned to the condition-first language group.

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Table 3: Multivariate Analysis for UMB Scale by Language Variable (Diabetic/Diabetes)

	Diabetic/Diabetes Median = 2.05 (N=400)	
	OR	95% CI
Gender (male vs. female)	**-.73**	**.32, .73**
Age (younger vs. older)	**-.51**	**.39, .92**
Diabetes Status (yes vs. no)	**1.34**	**1.34, 10.90**
Study Group (condition vs. people)	*-.40*	*.45, 1.01*

Bold: p ≤ 0.05 *Italics: p ≤ 0.10*

Among the obesity/obese sub-sample (Table 4), in comparison to whites, blacks were less likely to report high UMB scores. Conversely, a marginal association was detected where Asian/Pacific Islanders were more likely to report high scores compared to whites. Females were less likely than males to exhibit high bias. Individuals who self-identified as having obesity were less likely than individuals who deemed themselves underweight to report higher on the UMB scale. There was a marginal association such that in comparison to those with a low BMI, those with a high BMI were less likely to report higher on the UMB scale. Using condition-first language versus people-first language did not yield significant differences among the obesity/obese sample.

Table 4: Multivariate Analyses for UMB Scale by Language Variable (Obese/Obesity)

	Obese/Obesity Median = 2.50 (N=400)	
	OR	95% CI
Race (ref = White)		
Black	**-.99**	**.15, .90**
Asian/Pacific Islander	*.72*	*.86, 4.92*
Gender (male vs. female)	**-.87**	**.26, .67**
Weight (ref = underweight)		
Obese	**-2.28**	**.02, .66**
BMI (low vs. high)	*-.56*	*.31, 1.05*
Study Group (condition vs. people)	-.01	.63, 1.54

Bold: p ≤ 0.05 *Italics: p ≤ 0.10*

In the total sample (Table 5), respondents who were female, older, had a higher BMI, and self-identified as having obesity were less likely to have a high UMB score. Individuals who currently do not have diabetes were more likely to exhibit high bias. Additionally the diabetic/diabetes group was less likely to have a high UMB score in comparison to the obese/obesity group.

Table 5. Multivariate Analyses for UMB Scale by Total Sample

	Total Median = 2.25 (N=800)	
	OR	95% CI
Gender (male vs. female)	-.70***	.36, .69
Age (younger vs. older)	-.55***	.41, .81
Diabetes Status (yes vs. no)	**.78**	**1.15, 4.13**
Weight (ref = underweight)		
Obese	**-1.10**	**.11, .97**
BMI (low vs. high)	*-.39*	*.43, 1.05*
Study Group (obese/obesity vs. diabetic/diabetes)	-1.37***	.19, .35

***p≤0.001

Bold: p ≤ 0.05

Italics: p ≤ 0.10

With a few exceptions, all of the statistical relationships found for the UMB scale with demographics, and study group were also found for the social distance scale. The exceptions were age and in the total sample, diabetes status.

Conclusions

- Bias against people with obesity is greater than bias against people with diabetes.
- People-first language has a weak positive effect on bias against people with diabetes.
- A single exposure to people first language has no effect on substantial established levels of weight bias.
- More work is needed to identify whether people-first language can help reduce bias in the context of obesity.
- Gender differences in weight bias and social distance have important implications for efforts to address both diabetes and obesity.

Acknowledgements and References

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[1]Iverson C, Christiansen S, Flanagin A, et al. *AMA Manual of Style.* 10th ed. New York, NY: Oxford University Press. 2007:416-417.

[2]Feldman D, Gordon PA, and Weber C. The Effects of People–First Language and Demographic Variables on Beliefs, Attitudes, and Behavioral Intentions Toward People with Disabilities. *J Appl Rehab Counsel.* 2002;33(3):18-49

[3]Wadden T and Didie E. What's in a Name? Patients' Preferred Terms for Describing Obesity. *Obesity.* 2003;11(9):1140-1146.

[4]Puhl RM, Peterson JL, and Luedicke J. Parental Perceptions of Weight Terminology That Providers Use With Youth. *Pediatrics.* 2011;128(4):e786-e793.

[5]Latner JD, O'Brien KS, Durso, LE, Brinkman LA, and MacDonald T. Weighing obesity stigma: the relative strength of different forms of bias. *International Journal of Obesity.* 2008;32(7):1145-1152.

[6]DePierre, JA, Puhl RM, and Luedicke J. A new stigmatized identity? Comparisons of a "food addict" label with other stigmatized health conditions. *Basic and Applied Social Psychology.* 2013;35(1):10-21.

[7]Haghighat, R. The Development of an Instrument to Measure Stigmatization: factor analysis and origin of stigmatization. *The European Journal of Psychiatry.* 2005;19(3): 144-154.

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