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THE WEIGHT OF WORDS: HOW WORD CHOICE IMPACTS THE PERCEPTION OF
WEIGHT STIGMA IN VARIOUS SETTINGS

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A Senior Honors Project Presented to the

Honors College

East Carolina University

In Partial Fulfillment of the

Requirements for

Graduation with Honors

by

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May 2017

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The Weight of Words: How Word Choice Impacts the Perception of Weight Stigma in Various Settings

Weight-related health issues such as overweight and obesity are a growing problem in the United States. Ogden, Carroll, Fryar, and Flegal (2015) report that the national prevalence of adult obesity has risen from 30.5% in 1999 to 37.7% in 2014, a significant increase that reflects change in many areas of society during this time. When evaluating the reasons for this change many people focus on the individual causes of weight gain, such as poor diet quality or low exercise level, and perceive overweight and obesity to be problems of willpower or control. However, there are many more uncontrollable individual factors, including the natural aging process and a genetic predisposition to obesity, which are often not taken into account (National Institutes of Health, 2012). In addition to individual factors, there are also numerous societal factors that impact weight status as well. A cultural transition to more sedentary jobs with longer hours has led to less time available for exercise. Socioeconomic inequalities such as a lack of safe recreational spaces or restricted access to healthy foods also play a large role in determining weight status. Even a lack of sleep can increase the risk for developing obesity (National Institutes of Health, 2012; Tarbiat & D'souza, 2013).

Regardless of the exact cause of one's weight status, obese and overweight individuals in the United States are frequently the targets of anti-fat attitudes stemming from weight stigma. Link and Phelan's (2001) definition of stigma includes the coexistence of "elements of labeling, stereotyping, separation, status loss, and discrimination". Based on this conceptualization, weight stigma occurs when an individual with a higher weight status than average is labeled "fat", "obese", or another related term; is stereotyped to be lazy, mean, or any number of other negative characteristics (Puhl & Heuer, 2009); is separated from other weight status groups, such

as with “plus-sized” clothing and specialized medical equipment; experiences a loss in status within society because of this separation; and is discriminated against through a multitude of ways, such as by an individual with anti-fat attitudes or by intrinsic social structures that work against people with above-average weights. Each separate component has equal significance in the development of stigma and often depends on the others to fully manifest. For example, the concept of status loss within society is a direct result of stereotyping the “other” condition—in this case, overweight and obesity—and separating it from the “normal” condition, or average weight status.

The deeply interconnected nature of these components leads to a broad range of potential outcomes of stigma. It can compromise the economic, physical, and psychological health of the stigmatized group, or what Link and Phelan refer to as the group’s “life chances” (2001). With specific regards to weight status, stigma may increase the risk of depression, poor body image, and low self-esteem in overweight and obese Americans (Puhl & Brownell, 2006; Puhl & Heuer, 2009). Exposure to weight stigma can negatively impact average weight individuals as well. Cortisol reactivity levels were higher for both lean and overweight participants after viewing a video about weight stigma, although levels for overweight participants increased significantly more (Schvey, Puhl, & Brownell, 2014). Major, Hunger, Bunyan, and Miller (2014) reported that when exposed to stigmatizing news articles, women who perceived themselves as overweight or obese regardless of their actual weight status consumed more calories and felt less able to control their own eating habits. Both of these findings indicate that while stigmatized overweight and obese individuals experience the most severe outcomes of weight stigma, individuals with an average weight are also at risk for feeling the negative effects of stigma if they see themselves as overweight.

Weight stigma can stem from many different sources. Negative assumptions from other people, physical barriers and obstacles, and inappropriate remarks from family members and healthcare providers are among the most reported sources of weight stigma (Puhl & Brownell, 2006). Media exposure, particularly to fashion magazines is positively correlated with the development of antifat attitudes that can influence perpetuation of weight stigma (Lin & Reid, 2008). Puhl and Heuer's (2009) review of literature narrowed these sources into five major types: interpersonal stigma, stigma from the media, stigma in educational settings, stigma in employment settings, and stigma in healthcare. The last of these sources, as well as stigma in social settings, is the focus of the current research.

Weight stigma in the healthcare field affects both providers and patients, although in different ways. When asked about their preferences for discussing a patient's weight, a focus group of physicians said they were more likely to bring up weight status with their overweight patients than with their obese patients because they were "most likely to benefit" and had less to lose to reach a healthy weight (Alexander, Østbye, Pollak, Gradison, Bastian, & Brouwer, 2007). Many healthcare professionals hold negative attitudes toward their obese patients, such as opinions that these patients are noncompliant and undisciplined, and primary care physicians often report feeling inadequately prepared to consult their patients about their weight. This bias can contribute to physicians spending less time with their overweight and obese patients than with their patients of average weight status (Puhl & Heuer, 2009; Fruh, Nadglowski, & Hall, 2016). From the patient perspective, this stigmatization may lead to prejudice or unsatisfactory treatment and can determine whether or not they seek a physician's help at all (Puhl & Heuer, 2009). Fifty two percent of surveyed women with overweight or obesity reported that their weight has been a significant barrier to obtaining appropriate medical attention (Fruh et al.

2016). In a separate study, Carr and Friedman (2005) found that a significant number of very obese women (BMI > 35) described experiencing stigmatization and discrimination in the healthcare field, primarily due to the standard sizes of equipment being too small for their bodies.

General types of weight stigma can be further broken down into more specific categories. When presented with male and female silhouettes of differently labeled weights ranging from “skinny” to “obese”, participants were more likely to connect negatively connoted words such as “lazy”, “ugly”, and “disgusting” with the silhouettes labeled “overweight”, “fat”, and “obese” and more positive descriptors were associated with the slimmer silhouettes. This tendency suggests an increased likelihood of assigning negative stereotypes to body shapes that deviate from the average (Greenleaf, Starks, Gomez, Chambliss, & Martin, 2004). Even the precise words used when describing a person’s weight status can alone alter perceptions about weight status. Brochu and Esses' (2011) research found that participants' overall attitudes were more negative to a person labeled as “fat” than a person labeled as “overweight” and they were more likely to agree with weight stereotypes when applied to a fat person than an overweight person. Characteristics selected to describe the typical fat person were more negative and based more on intrinsic qualities than characteristics selected for the typical overweight person (Brochu & Esses, 2011). In a similar study, participants rated “fat” people against “obese” people based on disgust with the group, favorability towards the group, and personal similarity to the group. Obese people were rated as more disgusting, less favorable, and less similar to participants than fat people (Vartanian, 2013). These shared results indicate a significant difference in the connotations and attached stigma of weight status descriptors.

The stigmatization of weight status descriptors can also vary in the healthcare setting. Wadden and Didie (2003) reported that “fatness” and “obesity” were rated the least appropriate for doctors and medical professionals to use to discuss weight with their patients due to their intense stigmatization, and “weight”, “excess weight”, and “BMI” were rated as the most appropriate. Dutton, Tan, Perri, Stine, Dancer-Brown, Goble, and Van Vesseem (2010) found that potential patients ranked “weight” as the most desirable option for healthcare providers to use, followed by “BMI”, “unhealthy body weight”, “unhealthy BMI”, “weight problem”, and “excess weight”. Their participants ranked “fatness” as the least desirable term for doctors to use, a common outcome across studies (Wadden & Didie, 2003; Dutton et al. 2010). From the provider’s perspective, physicians reported that they would be most likely to use “weight” and least likely to use “fatness”, “excess fat”, “heaviness”, and “large size” with their patients in a clinical setting (Dutton et al. 2010).

Expanding on previous research, Gray, Hunt, Lorimer, Anderson, Benzeval, and Wyke (2011) compared the perceived stigma of weight status labels in a medical setting versus a casual social setting. Many participants reported that they would respond differently to terms depending on the context of their use; for example, “fat” was seen as acceptable for social situations but inappropriate for the healthcare setting but the reverse was true for “obese”, with a preference for “clinically obese” to emphasize the implicated medical problems. Labels including “overweight”, “heavy”, and “large” were nearly universally approved for general use, and younger participants reported referring to themselves as “obese”. “Fat” was perceived as carrying too many moral judgments to be used lightly and was associated with pity and laziness. “Overweight”, “high BMI”, “unhealthy BMI”, and “unhealthily high body weight” were all rated as appropriate for use in medical settings or by clinicians but were labeled unsuitable for casual

social situations (Gray et al., 2011). These results indicate that medical practitioners and healthcare providers are held to different standards than their patients' friends or family when discussing weight.

Based on the current literature it is clear that a relationship exists between word choice and weight stigma. However, Gray et al. (2011) is one of very few studies to directly compare weight stigma by the word choice in a healthcare setting versus a casual setting, and the strength of their results indicates that more research is needed in this particular area. This study aims to increase general knowledge about the potential interaction between word choice, environment, and weight stigma by answering the following hypotheses:

Hypothesis 1: Participants will rank the terms "obese" and "overweight" as more acceptable to use in medical settings and the terms "fat" and "heavy" will be ranked as more appropriate in social settings.

Hypothesis 2: When asked to rate the applicability of personality attributes to a person of high weight status, participants will associate more negative attributes with a "fat" person in a medical setting and an "obese" person in a social setting than they will in other conditions.

Method

Participants

Participants were college students enrolled in a four-year university in the southeastern United States (n = 115). Sixty-nine of the participants were female and 46 were male, with an age range of 18 to 25 years. Recruitment occurred through the psychology department's participant pool, which included students enrolled in an introductory psychology course, and participants received extra credit upon completion of the survey.

Materials

Measures. The Universal Measure of Bias for obesity (UMB-FAT) was administered to examine participants' existing weight bias prior to direct questioning. The UMB-FAT has 20 items that are individually rated on a 7-point Likert scale from "strongly agree" to "strongly disagree". The UMB-FAT measures negative judgment, distance, attraction, and equal rights of obese people with good internal consistency and construct validity (Latner, O'Brien, Durso, Brinkman, & MacDonald, 2008).

Vignettes. Vignettes were used to provide context for the use of weight descriptors in different settings. Eight total vignettes were written: "obese", "overweight", "fat", and "heavy" in two conditions each.

Medical vignette. Jordan is at the doctor's office for a regular wellness visit. After measuring his vital signs and taking the medical history the doctor tells him, "Considering your height of five feet, eight inches and your weight of 195 pounds, you have a BMI of 30. Do you realize that you're [obese/overweight/fat/heavy]?" The doctor then tells Jordan that being [obese/overweight/fat/heavy] has many associated health problems like an increased risk of heart disease and diabetes. The doctor recommends that Jordan work on being less [obese/overweight/fat/heavy].

Social vignette. Jordan is meeting a friend for a meal at their favorite restaurant. After they greet each other and sit down, Jordan's friend says, "You've put on some weight recently, and I know you're five feet, eight inches tall. How much do you weigh?" Jordan responded that he weighed 195 pounds. His friend pulled out his smartphone and found a BMI calculator online. "You have a BMI of 30. Do you realize that you're [obese/overweight/fat/heavy]?" Jordan's friend mentions that being

[obese/overweight/fat/heavy] has many associated health problems like an increased risk of heart disease and diabetes. Jordan's friend recommends that he work on being less [obese/overweight/fat/heavy].

Following the vignette, participants answered 4 questions to assess acceptability based on the vignettes. Participants were asked to rate the following eight adjectives on a 4-point Likert scale based on how well they described the subject of the vignettes: lazy, unintelligent, boring, unfriendly, motivated, intelligent, funny, and friendly (Greenleaf et al., 2004; Brochu & Esses, 2011). The remaining survey questions asked participants to judge the appropriateness of the weight descriptor used in the vignette. Participants were also asked whether they would have used the descriptor in the speaker's position, and whether they would be upset about the use of the descriptor in the subject's position. If participants responded that they would not have used the descriptor or that they would have been upset, they were asked which of the three unused weight descriptors they would have preferred.

Procedure

The current study was advertised on the psychology department's research system website as a study examining "Perceptions of Health Status". All participants consented to the study by agreeing to participate in the online questionnaire, which the participants completed at home. The data were collected through Qualtrics online survey software. Within Qualtrics, participants were randomly selected to complete different versions of the vignettes. Each version was evenly presented to ensure an equal distribution of responses between conditions. Participants were instructed to answer all survey questions honestly and reminded of their ability to withdraw from the study at any time during survey administration. After answering demographics questions, participants completed the UMB-FAT measure and original survey.

Results

The average BMI of participants was 24.4, with a range of 16.5 to 44.0, indicating that although BMI values ranged from “underweight” to “obese” the average participant was in the “normal” category. The Universal Measure of Bias ratings were computed by subscale and eight questions were reverse-coded according to standard procedure, so that “strongly agree” was coded as 1 and “strongly disagree” was coded as 7 for all questions (Latner et al., 2008). The mean ratings were: 3.12 for factor 1 (Negative Judgment); 2.72 for factor 2 (Distance); 4.77 for factor 3 (Attraction); and 2.86 for factor 4 (Equal Rights). These means indicate that participants agree with the negative judgments about fat people, generally tend to distance themselves from fat people, do not find fat people attractive, but agree that fat people deserve equal rights.

The first hypothesis addressed the suitability of weight descriptor use by setting and predicted that “fat” and “heavy” would be more accepted in a social setting and that “obese” and “overweight” would be more accepted in a medical setting. To examine this hypothesis, the data for each setting were analyzed separately. A one-way analysis of variance was used to analyze the effects of the weight descriptor in the vignette on participant ratings of appropriateness. The social setting had statistical significance at the $p < .05$ level [$F(3, 51) = 2.907, p = .043$]. However, post hoc comparisons using the Tukey HSD test showed no statistically significant differences between the obese ($M = 2.57, SD = 1.09$), overweight ($M = 2.86, SD = 1.10$), fat ($M = 3.57, SD = 1.02$), or heavy ($M = 2.54, SD = .97$) conditions, although the interaction effects between “fat” and “obese” ($p = .067$) and “fat” and “heavy” ($p = .062$) were near significance. General participant attitudes towards the weight descriptors were addressed with the third and fourth survey questions. However, no distinct response patterns occurred in the social setting.

Data in the medical setting for hypothesis 1 also showed significance at the $p < .05$ level [$F(3, 52) = 8.247, p < .001$]. Post hoc comparisons using the Tukey HSD test showed the mean score for the fat condition ($M = 4.07, SD = 1.16$) was significantly higher than the scores for the obese ($M = 2.64, SD = 1.08, p = .005$), overweight ($M = 2.14, SD = .86, p < .001$), and heavy ($M = 2.85, SD = 1.29, p = .023$) conditions. However, the obese, overweight, and heavy conditions did not significantly differ from one another. Participants' responses to the general attitude questions in the medical setting condition reflected these results, as no participant in any weight descriptor condition responded that they would have used "fat" to describe Jordan or would have preferred "fat" to be used about them if they were in Jordan's position but support for the use of "obese", "overweight", and "heavy" varied widely.

The second hypothesis examined the suitability of adjectives describing Jordan's character and predicted that more negative adjectives would be attributed to Jordan in the medical "fat" and social "obese" conditions. The data were analyzed using a separate two-way analysis of variance for each adjective, comparing the main effects of setting (medical, social) and descriptor (obese, overweight, fat, heavy) as well as the interaction effect between setting and descriptor on the attribution of adjectives to Jordan's character. There was no statistical significance for main or interaction effects. The second hypothesis was not supported.

Discussion

This study aimed to increase general knowledge about the potential interaction between word choice, environment, and weight stigma. The first hypothesis was that participants would rank the terms "obese" and "overweight" as more appropriate to use in medical settings and the terms "fat" and "heavy" would be ranked as more appropriate in social settings. This hypothesis was partially supported for the medical setting but not the social setting. "Fat" was significantly

rated as the least appropriate term to use in medical settings and “obese” and “overweight” were rated as more appropriate, which is in line with current weight stigma literature. Wadden and Didie (2003), Dutton et al (2010), and Gray et al. (2011) all reported that the terms “fat” and “fatness” were rated as least appropriate to use in a medical setting, with “overweight” being preferred and “obese” being acceptable. The findings of the present study support the conclusion that “fat” is seen as more stigmatizing than other weight descriptors when used in a medical setting.

There were no observed differences in the appropriateness of specific weight descriptors in the social setting. However, the general trend of the results showed that “fat” had the highest mean score indicating the least appropriateness, with “overweight”, “obese”, and “heavy” in second, third, and fourth places, respectively. This trend goes against current literature that reports “fat” as being judged more acceptable to use in social settings than “obese” (Gray et al., 2011). This indicates that the use of the term “fat” is stigmatizing in everyday social settings, particularly when discussing a stranger’s weight status as participants did with the vignette character.

The second hypothesis indicated that participants would make more negative attributions about a “fat” person in a medical setting than an “obese” person in a social setting. The second hypothesis was not supported, meaning that weight descriptor choice had no impact on personality attributions in either setting. It is possible that there is no relationship between these variables together, as previous research has focused solely on adjective suitability based on descriptor use as opposed to adjective suitability based on descriptor and setting (Brochu & Esses, 2011; Vartanian, 2013). However, the current approach may have lacked sufficiently strong manipulation. Past research examining adjective suitability has utilized figure silhouettes

illustrating different weight statuses, regulating participants' mental images of the person to whom they are attributing adjectives (Greenleaf et al., 2004; Brochu & Esses, 2011). The use of vignettes requires participants to create their own individual mental images that lack this consistency and therefore may not be comparable to one another.

The present study had several limitations in its design and execution. A restricted convenience sample of undergraduate college students means that these results may not accurately represent the general adult population. Secondly, the gendering of the main character in the vignette may have influenced participants' thoughts about Jordan. Previous research has shown that people assign terms describing high weight status (e.g. "overweight", "large", "obese") to women of a lower weight than men, and they are also more likely to assign negative attributes to high weight status women than high weight status men (Greenleaf et al., 2004). The vignette for the present study used a male character, potentially prompting participants to attribute fewer negative adjectives to him than they would have to a female character. Lastly, the original survey portion of the overall measure may have been flawed. The original questions developed about the vignettes were not standardized through repeated testing and refinement, meaning there may have been some unintended misinterpretation in the wording or the questions may not have sufficiently measured the concepts that they were designed to. The use of vignettes may also have skewed participant responses due to differences in imagined responses to hypothetical situations versus natural responses in the real world.

In conclusion, although the present study did not find full support for its hypotheses, the confirmation that "fat" is an unacceptable term to use in medical settings, and to a lesser extent social settings, is consistent with the existing literature and provides valuable insight for practitioners who have clients with a high weight status. People generally find the term "fat" to

be inappropriate to describe someone. Future research on weight stigma by setting and descriptor is needed to determine whether any significant differences occur between appropriateness of weight descriptors in a social setting, as well as to address whether perceptions of the character of people with a high weight status are influenced by the weight descriptors used to refer to them. This research will be instrumental to moving forward in a world with rising obesity rates and the evidence for significant weight stigma.

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