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## Perceived Interpersonal Mistreatment Among Obese Americans: Do Race, Class, and Gender Matter?

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### Abstract

**Objective:** We examine the extent to which body weight affects three types of perceived interpersonal mistreatment, and evaluate whether these patterns vary by race, social class, and gender in a large sample of American men and women.

**Methods and Procedures:** We use data from the first wave (1995) of the Midlife Development in the United States ( $N = 3,511$ ), a survey of persons aged 25–74, to contrast underweight, normal weight, overweight, obese I, and obese II/III persons' reports of three types of perceived interpersonal mistreatment: disrespectful treatment; harassment/teasing; and being treated as if one has a character flaw. We assess whether these relationships are contingent upon one's gender, race, and occupational status. We control for possible confounding influences, including physical and mental health.

**Results:** In the total sample, obese I and obese II/III persons report significantly higher levels of all three types of perceived mistreatment (compared to normal weight persons), even when demographic, socioeconomic status, and health characteristics are controlled. Among black men, however, obese II/III persons report significantly lower levels of all three types of perceived mistreatment, compared to their normal weight peers. Among both men and women, obese professional workers report significantly more perceived interpersonal mistreatment, compared to obese persons of lower socioeconomic status.

**Discussion:** These findings reveal the ways that intersecting social identities may shape obese Americans' perceptions of stigmatizing interpersonal encounters.

Obesity is one of the most enduring stigmas in American society. Stigma is any personal attribute that is “deeply discrediting” to its possessors, and may include “abominations of the body,” and “blemishes of individual character” (1). Obese Americans arguably are stigmatized on each of these dimensions (2). Research conducted over the past 40 years shows that obese persons are viewed as physically unattractive and undesirable (3,4), and are viewed by others as responsible for their weight because of a character flaw such as laziness, gluttony, or a lack of self-control (5–8). Children, adults, and even health-care professionals who work with obese persons hold negative attitudes toward them (3–5,9). Consequently, overweight and obese persons may be subject to discriminatory or unkind treatment by family members, acquaintances, and strangers who hold antifat attitudes (6,7,10,11).

Most research on the stigmatization of obese persons focuses on attitudes toward them, rather than their own perceptions of how they are treated (12–14). Social psychological theories of reflected appraisals suggest that an individual's perceptions of how others treat and perceive them is a powerful influence on one's self-concept and emotional well-being (15). Mounting research has evaluated whether obese adults are more likely than their slimmer peers to report institutional discrimination, such as workplace or health-care discrimination (10,11). However, institutional discrimination represents a small proportion of all stigma-tizing encounters (16). Thus, we focus here on perceived interpersonal stigmatization; even minor slights and teasing can produce considerable distress (17). Qualitative studies have documented overweight persons' reports of interpersonal mistreatment (7), yet we know of no nationally representative studies of adults that explore the specific ways that overweight and obese adults feel they are mistreated interpersonally. To address this gap, we examine the extent to which BMI affects three types of perceived interpersonal mistreatment: harassment/teasing, treated with disrespect, and treated as if one has a character flaw.

Second, we examine whether the statistical association between BMI category and perceived interpersonal mis-treatment persists when demographic and psychosocial characteristics are controlled. Persons possessing one stigmatized attribute often possess other attributes that also are denigrated (18). For example, obese people are more likely than nonobese persons to be black, and of low socioeconomic status (19,20). Obese persons also have poorer physical health and functioning than their thinner peers (21). Each of these personal characteristics is associated with a greater likelihood of reporting stigmatizing treatment (22). Overweight and obese persons also are more likely than their thinner peers to experience depressive symptoms and negative affect (23–26). Negative affect, in turn, is associated with recollection of unpleasant encounters such as mistreatment (27). Thus, we control for socioeconomic, demographic, and physical and mental health characteristics, because they may confound the relationship between body weight and perceived interpersonal mistreatment.

Finally, we explore whether perceptions of interpersonal mistreatment vary based on other characteristics of the obese person. The extent to which a personal attribute is devalued, and whether that attribute elicits negative treatment from others, is contingent upon social context (28). Obese persons belonging to social strata where obesity is less statistically and culturally normative may be more likely to experience and perceive interpersonal mistreatment. Whites and persons with richer economic resources are less likely to be obese, and are more likely to hold antiobese attitudes (29,30). Definitions of physical attractiveness are more closely tied to thinness for women than men (31), although a number of studies suggest that blacks are more accepting of full-figured women (32,33). Surprisingly little research has focused on the ways that body weight affects the perceived interpersonal experiences of men, particularly black men (14,34). Most studies of weight stigma-tization focus on women only (7,8,35,36). Thus, we conduct moderation analyses to examine whether and how the relationship between BMI and perceived interpersonal mistreatment varies by race, gender, and socioeconomic status.

## METHODS AND PROCEDURES

### Study population and design

Analyses are based on data from the National Survey of Midlife Development in the United States (MIDUS). The MIDUS is a national multistage probability sample of noninstitutionalized English-speaking adults ages 25–74 ( $M = 46.8$ ,  $s.d. = 13.2$ ), selected from working telephone banks in the continental United States. Telephone interviews and mail questionnaires were administered in 1995–1996 and 2004. We focus here on the 1995 sample only to maximize the number of African-American men and obese persons in our sample. These two particular subgroups have elevated rates of mortality and survey attrition, thus those participating in both waves of the study are advantaged in terms of physical health, survival,

and interpersonal encounters. The total 1995 MIDUS sample includes 4,242 adults (2,155 men and 2,087 women). Our analyses focus on the 3,511 persons (1,775 men and 1,736 women) who completed the mail questionnaire and telephone interview. The response rate for the self-administered mail questionnaire is 87%, thus caution should be taken in extrapolating our results to the total population in the same age range (37).

## Measures

**Dependent variables**—Perceived interpersonal discrimination is assessed with the question “How often on a day-to-day basis do you experience each of the following [nine] types of discrimination?” Response categories are never, rarely, sometimes, often. We conducted factor analyses which yielded three subscales: lack of respect, treatment that suggests one is of blemished character, and teasing/harassment. Although prior analyses used a single composite scale (10,22), our analyses revealed three conceptually and statistically distinct subscales, which allow for a more nuanced evaluation of diverse subtypes of perceived interpersonal discrimination. *Lack of respect* ( $\alpha = 0.93$ ) indicates the frequency with which one was: treated with less courtesy than other people; treated with less respect than other people; received poorer service than other people at restaurants or stores; treated as if not smart, and treated as if not as good as other people. *Blemish of character* ( $\alpha = 0.81$ ) refers to the frequency with which: one is treated as if they are dishonest; and treated as if they are frightening to others. *Harassment/teasing* ( $\alpha = 0.86$ ) refers to the frequency with which one is: called names or insulted; and threatened or harassed. Responses were averaged and scale scores range from 1 to 4, where a 4 reflects highest average frequency of perceived mistreatment. Items were developed for the MIDUS and produce more accurate estimates of the prevalence and severity of perceived interpersonal mistreatment than more conventional single-item questions (22).

**Independent variables**—All MIDUS participants were asked to report their weight and height, which are used to calculate *adult* BMI. BMI equals weight in kilograms/height in meters squared. We recoded continuous BMI scores into six categories, based on cut points defined by the National Heart, Lung and Blood Institute (NHLBI) Guidelines (19): *underweight* (BMI < 18.5), *normal weight* (BMI between 18.5 and 24.9), *overweight* (BMI between 25 and 29.9), *obese I* (BMI between 30 and 34.9), *obese II* (BMI between 35 and 39.9), and *obese III* (BMI  $\geq$  40). We combine the latter two categories, because of the small number of cases in the Obese III category (2.6% of sample). Some studies show that overweight and obese individuals tend to underestimate their weight (38), although this bias is considered modest, particularly when classifying persons into the broad NHLBI categories. Persons who are particularly troubled by their size may not report their weight; thus we include a dichotomous variable signifying that one's self-reported weight is missing.

**Demographic and socioeconomic status characteristics**—Demographic characteristics include *age*, *sex* (1 = female; 0 = male), *race* (1 = black; 0 = all other races), *marital status* (categorical variables indicate persons who are never married, and formerly married. Currently married is the reference group) and *parental status* (1 = has any children; 0 = has no children). We use a dichotomous indicator of race, indicating blacks vs. all others because the MIDUS sample included very small numbers of Asians and Hispanics; neither subgroup differs significantly from whites in terms of BMI in our sample.

Socioeconomic status characteristics include *educational attainment*, *employment status*, and *occupational status*. Years of completed education are recoded into the categories: <12 years, 12 years (reference category), 13–15 years, and  $\geq$ 16 years of education. Employment status indicates whether a person was employed at the time of interview. Occupational status is coded into two categories: *upper white-collar* (i.e., professional, executive, and managerial occupations), and a combined category including both *lower white-collar* (i.e., sales and

clerical) and *blue-collar* (e.g., crafts, operatives, labor, and farm occupations) workers. The latter category is the reference group.

Three dimensions of current physical and emotional health are considered. *Physical health* is evaluated with the question: “In general, would you say your physical health is excellent, very good, good, fair, or poor.” Responses are recoded into a dichotomous variable where 1 = fair/poor, and good or better is the reference group. *Functional limitations* are measured with the instrumental activities of daily living scale. The instrumental activities of daily living scale assesses the difficulty one has performing seven activities of daily life. Response categories range from 1 to 4, and include: not at all, a little, some, and a lot. Scale scores reflect one's average response across the items, where higher scores reflect greater disability. The instrumental activities of daily living is a widely used measure to evaluate functional limitations in community-dwelling populations (39).

*Negative affect* ( $\alpha = 0.87$ ) is assessed with the question: “during the past 30 days, how much of the time did you feel: (a) so sad nothing could cheer you up; (b) nervous; (c) restless or fidgety; (d) hopeless; (e) that everything was an effort; and (f) worthless.” The five response categories are none of the time, a little of the time, some of the time, most of the time, and all of the time. We constructed scale scores by averaging responses across each set of items; higher scores reflect more frequent negative affect. The scale is standardized and has a mean of 0 and s.d. of 1. This scale was developed for use in the MIDUS; scale items were culled from several well-known and valid instruments (40).

## Data analysis

First, we contrast the perceived interpersonal mistreatment experiences, and the demographic, socioeconomic, and health characteristics of the six BMI categories. Second, we estimate ordinary least squares regression models to evaluate the extent to which BMI category affects each of the three outcomes, after controlling for potential confounding factors. (In preliminary analyses, we estimated models using both a continuous and a quadratic measure of BMI; model fit was superior when the categorical indicator was used, thus we present and discuss those models only). Finally, we assess the extent to which the association between BMI category and perceived interpersonal mistreatment varies by gender, race, and social class. We evaluate two-way interaction terms to ascertain whether the effect of BMI category is significantly moderated by sociodemographic characteristics.

## RESULTS

### Bivariate analysis

Table 1 presents descriptive statistics for all measures included in the analysis, by BMI category. We compare the six BMI categories by conducting factorial ANOVA and Tukey's *post-hoc* tests; the right hand column denotes statistically significant contrasts between specific pairs of BMI categories. Approximately 37% of the MIDUS sample has a BMI of 25–29.9, while an additional 23% have a BMI >30. These proportions are comparable with national estimates showing that 18–25% of the US population is obese, while 60–70% is overweight or obese (20). The average age is 46.8 years, and men and women each account for one half of the sample. One third of the sample has graduated from college while an additional 30% has at least some college. Only 6% of the analytic sample is black; by contrast, 12% of the US population is black (41).

Persons with a BMI of  $\geq 35$  (Obese II/III) report significantly more frequent mistreatment on all three subscales, compared to normal weight or overweight persons. They also report more frequent disrespectful encounters than persons with a BMI of 30–34.9 (Obese I). Compared to

all other weight groups (except obese I persons), obese II/III persons report significantly more frequent treatment suggesting that they are of poor character.

Consistent with past studies of the demographic correlates of obesity, we find that blacks are over-represented among persons classified as obese, particularly at high levels of the BMI spectrum; blacks account for 6% of the overall MIDUS sample, yet comprise 12% of respondents with a BMI of  $\geq 35$ . BMI category is inversely related to socioeconomic status. Obese II/ III persons report more frequent negative affect than persons in all other BMI categories, except for persons who did not report their weight. The extent to which one has difficulty in performing instrumental activities of daily life, and the proportion rating their health as “fair” or “poor” increases monotonically as BMI category surpasses the “normal” category.

### Multivariate analysis

**Effects of BMI category on perceived interpersonal mistreatment**—We use ordinary least squares regression models to evaluate whether BMI category is a significant predictor of the three perceived interpersonal mistreatment outcomes, after adjusting for demographic, socioeconomic, and health characteristics. In Table 2, model 1 shows the effects of BMI category after adjusting for demographic characteristics, model 2 adds controls for socioeconomic status, and model 3 further adjusts for health.

Obese I and obese II/III persons report significantly higher levels of all forms of interpersonal mistreatment than do normal weight persons. Although coefficients attenuate slightly when sociodemographic characteristics are controlled, the effects remain statistically significant across all models and outcomes. For each of the three outcomes, obese I persons report mistreatment scores that are 0.8–0.9 points higher than normal weight persons in models 1, and these effect remain virtually the same after socioeconomic characteristics are controlled (in model 2). These effects attenuate only slightly to 0.7–0.8, when physical and mental health are controlled (in model 3). Similarly, obese II/III persons report significantly higher levels of perceived interpersonal mistreatment, relative to normal weight persons. This disadvantage declines considerably for the outcome of harassment/teasing, when health status is controlled in model 3 ( $b = 0.13$  declines to 0.094). The declines for the other two outcomes are more modest. For all three outcomes, however, obese II/III persons report significantly higher levels of interpersonal mistreatment even when other personal characteristics are controlled.

Demographic characteristics also are significant predictors of perceived interpersonal mistreatment. Blacks report significantly more frequent mistreatment than do whites, and the effects are most pronounced for the outcomes of “character flaw” and “lack of respect” ( $b = 0.74$  and  $0.72$ ,  $P < 0.001$ , respectively). Women report significantly less frequent harassment and treatment as if they were of flawed character, yet significantly more frequent encounters of disrespect, relative to men. Formerly married and never married persons also report significantly more frequent interpersonal mistreatment, for each of the three outcomes. Negative mood is significantly related to more frequent reports of all three types of mistreatment.

**Do the effects of BMI on perceived interpersonal mistreatment vary by subgroup?**—We evaluate whether the effects of BMI category on perceived interpersonal mistreatment differ significantly by gender, race, and socioeconomic status. We first estimate two-way interaction terms of gender by BMI category; not one interaction term was statistically significant at the  $P < 0.05$  level. Next, we evaluate two-way interaction terms of race by BMI, and occupational group by BMI. We conduct these analyses separately by gender, given prior studies showing that the perceptions of the ideal body type for both women and men vary by race and social class (14,33).

In our subsample of men, we find statistically significant interactions between race and BMI for all three outcomes. Among women, none of the race by BMI interaction terms was statistically significant. Occupational group moderates the effect of BMI for both men and women, albeit for different outcomes. Among men, the effects of BMI category are contingent upon occupational status for the outcome of disrespectful treatment, whereas for women the interaction effects between occupational status and BMI category significantly predicted how frequently one was treated as if they were of flawed character. The statistically significant two-way interaction terms, adjusted for all independent variables, are plotted in Figures 1 and 2.

Figure 1 reveals that extremely obese white men ( $n = 93$ ) report significantly higher levels of harassment/teasing, disrespectful treatment, and treatment as if they are of flawed character, relative to their normal weight peers ( $n = 449$ ). However, the reverse pattern emerges among black men; obese II/III black men ( $n = 8$ ) report significantly lower levels of mistreatment than their normal weight peers ( $n = 22$ ). Figure 2 shows that the frequency of perceived interpersonal mistreatment among extremely obese persons is significantly higher for professional persons than for persons with lower status jobs. Among both men and women, obese II/III professional workers report significantly higher levels of mistreatment compared to both their thinner peers and extremely obese nonprofessional workers. Obese II/III upper-white collar men ( $n = 29$ ) report disrespectful treatment scores that are  $\sim 0.4$  points higher than other men, whereas a similar pattern emerges among extremely obese professional women ( $n = 33$ ) for the outcome “treated as if one has a flawed character.” These findings underscore the value placed upon a slim physique among upper-middle class persons, although the interpersonal consequences of violating this ideal elicit different types of mistreatment for men and women.

## DISCUSSION

Our analyses reveal that obese persons report more frequent stigmatizing interpersonal interactions than their slimmer peers, although obesity does not operate as a “master status” (1); that is, an individual trait that is so socially powerful that it overshadows all of an individual's other attributes. Our initial analyses revealed that obese I and obese II/III persons reported more frequent disrespectful treatment, more frequent teasing/harassment, and more frequent treatment as if they were morally flawed, yet our moderation analyses revealed important subgroup distinctions. The obesity stigma is less acute for black men than for white men, although this finding should be taken as preliminary evidence only given our small sample of highly obese black men ( $n = 8$ ). Further, the perception that one has been treated in a stigmatized manner is significantly stronger for obese persons of higher (vs. lower) socioeconomic status among both men and women, although the specific manifestations of the perceived mistreatment vary by gender. These patterns underscore the social nature of stigma; stigma is a personal attribute that is devalued “in some particular context” (28). Social class and ethnicity are two cultural contexts that condition both the stigmatization of obese persons, and their perceptions of such treatment.

First, we found in our overall sample that obese I and obese II/III persons report significantly higher levels of all three types of perceived mistreatment than normal weight persons. Although these effects remained statistically significant, the magnitude of the effects declined when physical and mental health were controlled. The mediation processes were most evident among obese II/III persons, for the outcome of teasing/harassment; the size of the coefficient declined by  $\sim 25\%$  when health was controlled. This pattern may reflect the fact that teasing or name-calling is most frequently perpetuated by the family members of obese persons (7), particularly parents or siblings (42). Significant others may make hurtful comments that are intended as helpful; they may be genuinely concerned by the health threat posed by obesity. Regardless of family members' intentions, however, it is ultimately the obese persons' interpretation of these words and gestures that shape their psychological impact.

Second, we find that obese II/III white men report significantly more frequent experiences of mistreatment along all three outcomes, compared to their normal weight peers. However, we find the reverse pattern for black men; normal weight black men report significantly more disrespectful treatment, harassment/teasing, and treatment as if their character is “blemished,” relative to their obese II/III peers. In all BMI categories, however, black men report more frequent mistreatment than white men on all three outcomes except for harassment/teasing. Our results are broadly consistent with a recent study evaluating attitudes toward slim, average, and large sized white and black men (14). A sample of 68 black and white male undergraduates rated (photographs of) large sized men more negatively than normal size men, using a composite measure assessing the target person's intelligence, competence, and attractiveness. However, the students rated large black men less negatively than large white men.

These findings suggest that excessive body weight is more stigmatizing to white men than black men. Blacks may be more accepting of a large physique than are whites; given that most significant others share one's race and ethnicity, obese black persons may face fewer detractors in their daily lives. This pattern has been documented for women (33,43), yet has not yet been explored among black men. The greater acceptance of large black women (compared to large white women) may reflect statistical norms; approximately two-third of black women yet only one half of white women are over-weight. However, black and white men are equally likely to be overweight (19,20). Thus, we believe that cultural norms and expectations, rather than statistical norms, promote acceptance of a large black man relative to a large white man.

Contemporary cultural images typically depict black men as athletes, comedians, gangsters, criminals, rappers, or “players” (44). Positive media depictions of black men—the star football player or kind-hearted clown (e.g., “Fat Albert”)—often are images of large men. By contrast, negative depictions such as menacing criminal, or disloyal romantic partner, typically involve black men with slimmer physiques. Among white men, by contrast, a larger physique is often portrayed as indicative of an incompetent, nonathletic man with a “beer gut” (14). Given our small sample of obese II/III black men, however, our findings are suggestive only and require further investigation with a larger sample of black men. The MIDUS investigators recently replicated the content of the 1995 survey on a sample of >200 African Americans in Milwaukee, Wisconsin; when these data are released they will provide a rich opportunity to further explore the ways that race, gender, and body weight shape experiences of perceived interpersonal and institutional stigmatization.

Third, we found that obese professionals reported more frequent interpersonal discrimination than obese persons who held lower-status occupations. This finding underscores the importance of social context: upper-middle class Americans are less likely to be obese, more likely to hold antiobese attitudes, more likely to view thinness as a physical ideal, and more likely to view obesity as a consequence of laziness (45,46). As such, obese professional workers may be a statistical minority in their social circles, and thus may be more sensitive to unpleasant personal encounters that they perceive to reflect their weight. In supplementary analyses, we explored the attributions that MIDUS sample members made for their perceived interpersonal mistreatment. Among all persons with a BMI of  $\geq 30$ , 11.2% reported that they were mistreated specifically because of their weight yet these proportions ranged from 12.5% of non-professional males to 36% of professional women.

Obese professional men and women also reported different types of unkind interpersonal treatment. Obese II/III men report being treated with less respect than their thinner peers whereas women reported that they were treated as if they had a character flaw. We suspect that this pattern reflects the distinctive gender-typed social expectations placed upon middle class men and women. Men are expected to be strong and competent workers and breadwinners, whereas women are expected to be physically attractive, and highly moral, thoughtful, and

kind toward others (47). For professional men, excessive weight may be viewed as an indication of a lack of self-discipline or work ethic, which may chip away at the respect received in upper middle-class work and social environments. For a professional woman, conversely, failure to comply with the thin physical ideal may trigger perceptions that she also fails to uphold the “moral” ideal.

### Limitations and future directions

Our study has several important limitations. First, reports of stigmatizing experiences are based on perceptions only; we do not have corroborating reports from significant others. Further, our outcome measure of perceived interpersonal mistreatment does not reveal one's attribution for their mistreatment. However, in supplemental analyses we did find that the attributions made for interpersonal treatment—even among obese people only—varied widely by one's social class and gender, thus underscoring the ways that perceived stigmatizing encounters vary across social contexts. Second, because of the relatively small number of blacks in our sample, we could not assess further subgroup differences, such as four-way interactions between race, gender, body weight and social class. The newly collected Milwaukee African-American oversample will provide an opportunity to pursue these lines of inquiry.

Third, we explored only a small set of potential moderators; future studies should explore the extent to which age and sexual orientation moderate the effects of body weight on perceived interpersonal mistreatment, as standards for the “ideal” physique have been found to vary both by life course stage, and by sexual orientation. Fourth, we considered only a limited set of possible explanatory pathways. Future studies could evaluate a richer array of measures of one's relationships with significant others; relationships with family, spouse, friends and co-workers may either provide a buffer against, or exacerbate the psychological consequences of weight-related stigmatization. Despite these limitations, our study provides persuasive evidence that obese individuals perceive that they are the targets of unkind interpersonal treatment—although these experiences are strongly conditioned by race and social class.

We encourage researchers to explore whether the increasing prevalence of obesity in the United States will lead to more or less widespread mistreatment. The specific stigmas that elicit negative reactions from others may change over time as knowledge, tastes, and public acceptance of “deviant” conditions and behaviors change. As more Americans become obese, biases may be reduced because more people (and their significant others) will become targets of stigmatization, and awareness of weight-based inequities may increase.

It is naive to assume that the stigma associated with obesity will simply fade away, however; more sweeping social reforms may be necessary. Public education about the distinctive challenges facing obese persons and about the pervasiveness of prejudicial attitudes toward them may help to reduce unfair treatment of severely overweight Americans. The Civil Rights Act of 1964 does not identify weight as a protected characteristic, and only in rare instances can severely obese people seek legal protection under the Americans with Disabilities Act (ADA). Similarly, obese persons are not a protected class under most states' hate speech and hate crime provisions. Expanding protected categories to include obese persons may be a potentially effective strategy for ensuring that prejudicial beliefs against stigmatized individuals are not translated into disrespectful or discriminatory treatment.

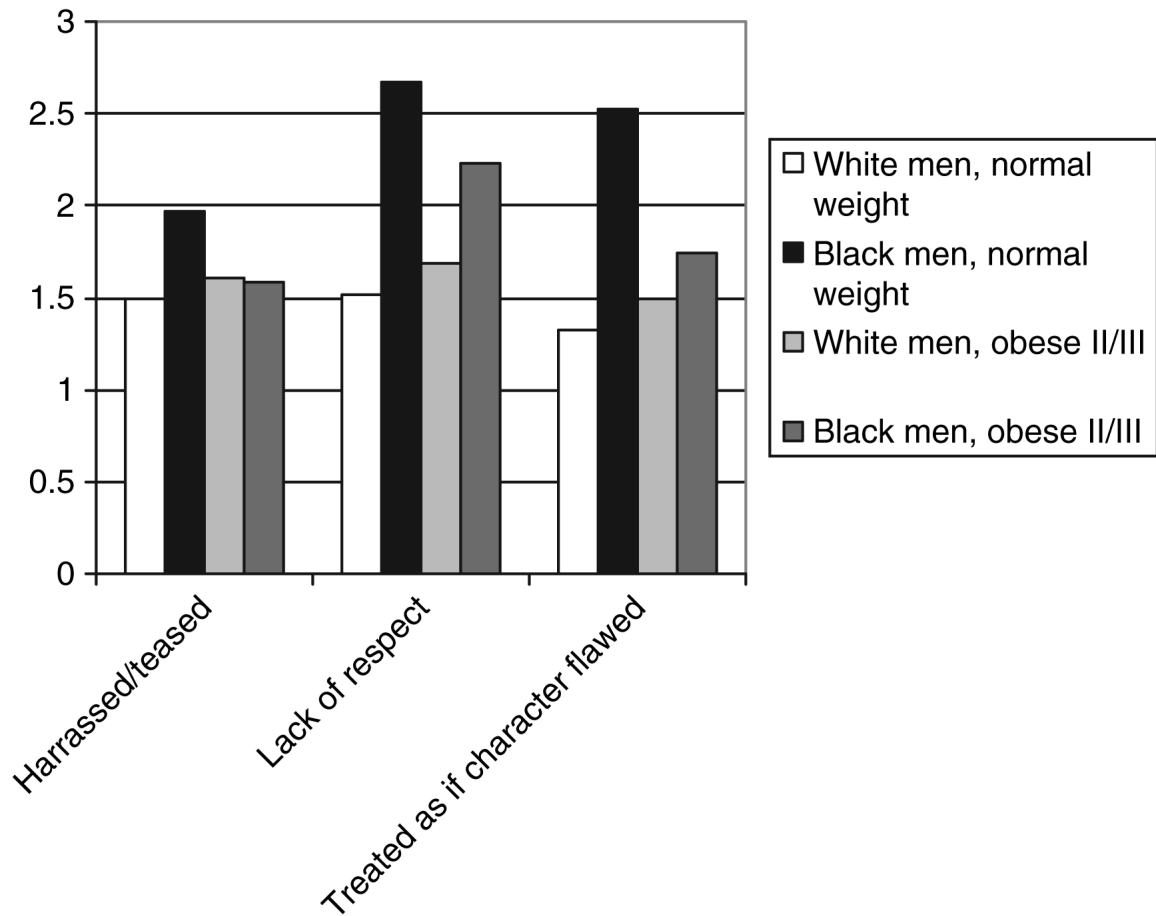
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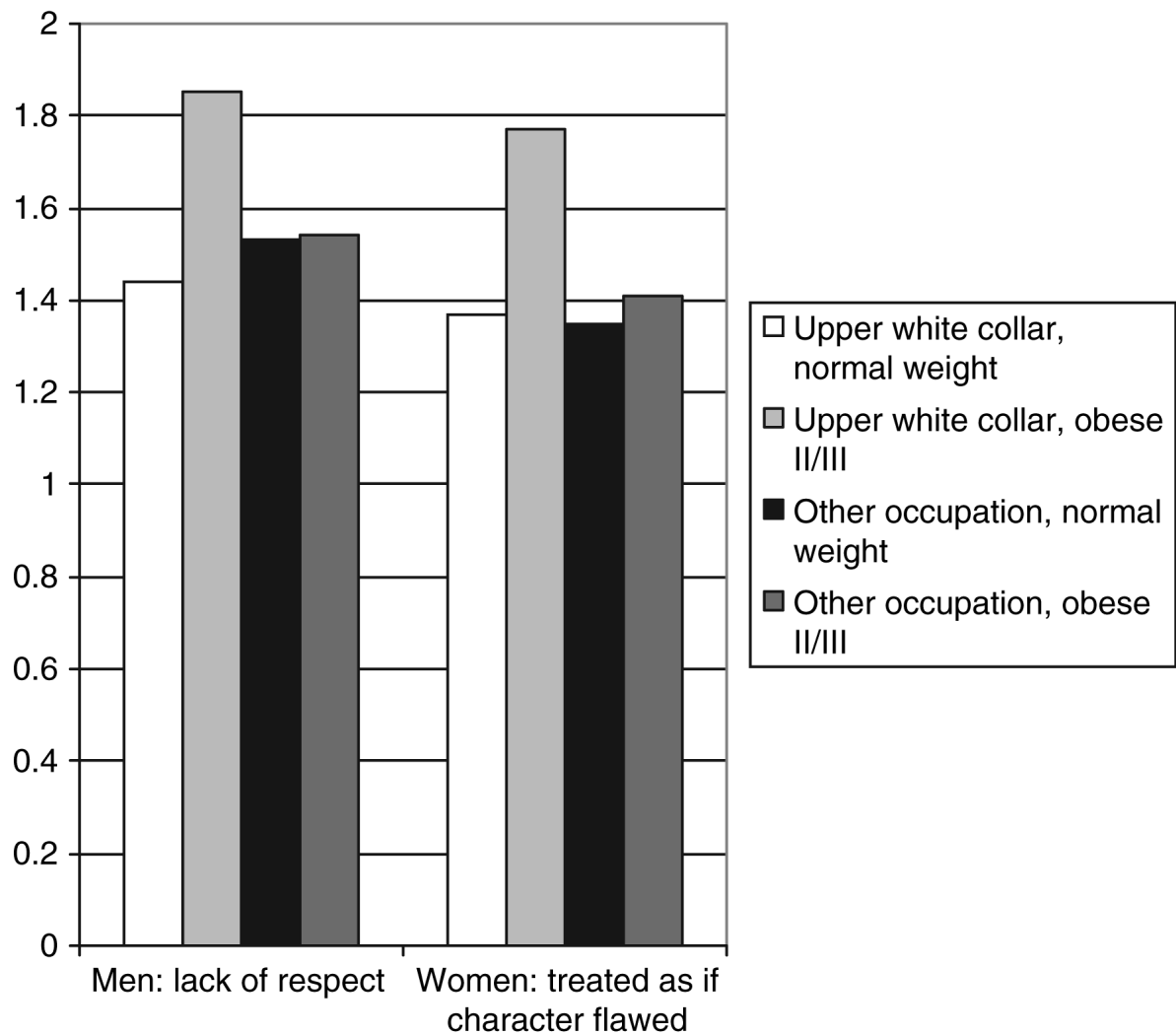


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**Figure 1.**  
Perceived interpersonal mistreatment, by race and BMI, men of the MIDUS ( $N = 1,775$ ).  
Plotted values are adjusted for all independent variables in the analysis.



**Figure 2.** Perceived interpersonal mistreatment, by occupational status and BMI, men and women of the MIDUS ( $N = 3,511$ ). Plotted values are adjusted for all independent variables in the analysis.

**Table 1**

Means (and s.d.) or proportions, Midlife in the United States (MIDUS) 1995 (N = 3,511)

	Total sample	Underweight <sup>a</sup> (<18.5)	Normal <sup>b</sup> (18.5–24.9)	Overweight <sup>c</sup> (25–29.9)	Obese I <sup>d</sup> (30–34.9)	Obese II/III <sup>e</sup> (>35)	Did not report weight	F- statistic (df = 5)	Significant subgroup differences
<b>Dependent variables</b>									
Harassed/teased (range: 1–4)	1.28 (0.56)	1.30 (0.66)	1.26 (0.55)	1.27 (0.53)	1.32 (0.58)	1.39 (0.59)	1.28 (0.68)	3.18**	be, ce
Treated without respect (range: 1–4)	1.54 (0.67)	1.52 (0.60)	1.51 (0.67)	1.51 (0.65)	1.55 (0.67)	1.74 (0.71)	1.61 (0.84)	6.41***	be, ce, de
Treated as if character is flawed (range: 1–4)	1.36 (0.63)	1.24 (0.53)	1.30 (0.60)	1.37 (0.63)	1.40 (0.64)	1.50 (0.70)	1.33 (0.70)	5.77***	ae, bc, bd, be, ce, ef
<b>Demographic characteristics</b>									
Sex (1 = female)	0.49	0.79	0.60	0.36	0.44	0.63	0.60	41.76***	ab, ac, ad, bc, bd, ce, cf, de, df
Race (1 = black)	0.06	0.03	0.04	0.06	0.08	0.12	0.08	5.15***	ae, bd, be, ce
Age (in years)	46.8 (13.2)	41.0 (13.1)	44.73 (13.21)	47.85 (13.4)	49.71 (11.97)	47.34 (11.87)	45.22 (13.56)	15.94***	ac, ad, ae, bc, bf, be, df
Currently married	0.64	0.44	0.60	0.68	0.68	0.63	0.58	6.78***	ab, ac, ad, ae, bc, bd
Formerly married	0.23	0.37	0.24	0.22	0.23	0.23	0.24	1.96	ac
Never married	0.13	0.19	0.16	0.10	0.09	0.14	0.18	5.49***	bc, bd
Has children (1 = yes)	0.81	0.74	0.76	0.83	0.86	0.81	0.80	7.04***	bc, bd
<b>Socioeconomic status</b>									
<12 years education	0.09	0.082	0.068	0.082	0.13	0.09	0.071	4.04*	bd, cd
13–15 years education	0.30	0.36	0.31	0.28	0.29	0.33	0.33	1.33	
>16 years education	0.33	0.32	0.38	0.34	0.25	0.23	0.33	8.40***	bd, be, cd, ce
Not currently employed	0.27	0.34	0.27	0.27	0.26	0.30	0.29	0.639	
Upper white-collar worker	0.31	0.32	0.34	0.30	0.30	0.23	0.30	3.08**	be
<b>Physical and mental health</b>									
Negative affect (standardized)	0 (1.00)	0.13 (0.98)	0.02 (0.99)	-0.08 (0.92)	-0.03 (1.0)	0.22 (1.19)	0.24 (1.15)	6.04**	be, ce, cf, de, df
Limitations with instrumental activities of daily living (IADLs)	1.59 (0.79)	1.66 (0.97)	1.38 (0.63)	1.55 (0.76)	1.80 (0.86)	2.13 (0.89)	1.67 (0.87)	54.5***	ab, ae, bc, bd, be, bf,

	Total sample	Underweight <sup>a</sup> (<18.5)	Normal <sup>b</sup> (18.5–24.9)	Overweight <sup>c</sup> (25–29.9)	Obese I <sup>d</sup> (30–34.9)	Obese II/III <sup>e</sup> (>35)	Did not report weight	F-statistic (df = 5)	Significant subgroup differences
Self-rated health (1 = fair/poor)	0.15	0.20	0.11	0.13	0.21	0.28	0.16	14.63 <sup>***</sup>	cd, ce, de, ef bd, be, cd, ce, de, ef
N	3,511	74	1,177	1,303	526	272	158		
%	100	2.1	33.5	37.1	15	7.7	4.5		

Asterisks denote significance level of F-statistic, where

Post-hoc comparisons were conducted using ANOVA; significant ( $P < 0.05$ ) subgroup differences are denoted as *ab*: underweight vs. normal; *ac*: underweight vs. overweight; *ad*: underweight vs. obese I; *ae*: underweight vs. obese II/III; *af*: underweight vs. weight missing; *bc*: normal vs. overweight; *bd*: normal vs. obese I; *be*: normal vs. obese II/III; *bf*: normal vs. weight missing; *cd*: overweight vs. obese I; *ce*: overweight vs. obese II; *cf*: overweight vs. missing; *de*: obese I vs. obese II/III; *df*: obese I vs. weight missing; *ef*: obese II/III vs. weight missing.

\*  $P < 0.05$ .

\*\*  $P < 0.01$ .

\*\*\*  $P < 0.001$ .

**Table 2**  
OLS regression predicting perceived interpersonal mistreatment in the MIDUS, by BMI ( $N = 3,511$ )

	Harassed/teased			Treated as if character is flawed			Treated without respect		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<b>BMI</b>									
Underweight	0.019 (0.064)	0.019 (0.065)	0.019 (0.065)	-0.070 (0.070)	-0.070 (0.070)	-0.067 (0.070)	-0.039 (0.076)	-0.035 (0.076)	-0.029 (0.075)
Overweight	0.015 (0.022)	0.016 (0.022)	0.015 (0.022)	0.050* (0.024)	0.051* (0.024)	0.051* (0.024)	0.039 (0.026)	0.040 (0.026)	0.036 (0.026)
Obese I	0.083** (0.029)	0.085** (0.029)	0.069* (0.029)	0.089** (0.031)	0.090** (0.031)	0.079** (0.031)	0.081* (0.034)	0.082* (0.034)	0.070* (0.033)
Obese II/III	0.131*** (0.037)	0.132*** (0.037)	0.094* (0.037)	0.172*** (0.039)	0.171*** (0.039)	0.143*** (0.040)	0.207*** (0.043)	0.207*** (0.043)	0.168*** (0.043)
Did not report weight	0.006 (0.045)	0.007 (0.046)	-0.001 (0.046)	-0.014 (0.049)	-0.013 (0.049)	-0.018 (0.049)	0.070 (0.054)	0.071 (0.054)	0.060 (0.053)
<b>Demographic characteristics</b>									
Sex (1 = female)	-0.074*** (0.019)	-0.074*** (0.019)	-0.089*** (0.019)	-0.167*** (0.021)	-0.169*** (0.021)	-0.181*** (0.021)	0.059** (0.022)	0.062** (0.022)	0.044* (0.022)
Race (1 = black)	0.278*** (0.038)	0.280*** (0.038)	0.286*** (0.038)	0.721*** (0.040)	0.726*** (0.040)	0.737*** (0.041)	0.705*** (0.044)	0.706*** (0.044)	0.723*** (0.044)
Age (in years)	-0.007*** (0.001)	-0.006*** (0.001)	-0.006*** (0.001)	-0.009*** (0.001)	-0.008*** (0.001)	-0.008*** (0.001)	-0.009 (0.001)	-0.008 (0.001)	-0.008 (0.001)
Formerly married	0.136*** (0.023)	0.134*** (0.023)	0.106*** (0.022)	0.093*** (0.024)	0.090*** (0.025)	0.064*** (0.025)	0.089** (0.026)	0.086** (0.026)	0.051* (0.026)
Never married	0.151*** (0.036)	0.151*** (0.036)	0.132*** (0.036)	0.110** (0.039)	0.112** (0.039)	0.097* (0.039)	0.135*** (0.042)	0.137** (0.042)	0.116** (0.041)
Has children (1 = yes)	0.034 (0.031)	0.036 (0.031)	0.031 (0.031)	0.015 (0.033)	0.015 (0.033)	0.010 (0.033)	-0.009 (0.036)	-0.006 (0.036)	-0.008 (0.036)
<b>Socioeconomic status</b>									
<12 years education	-0.018 (0.036)	-0.018 (0.036)	-0.044 (0.036)	-0.050 (0.038)	-0.050 (0.038)	-0.069 (0.039)	0.008 (0.042)	0.008 (0.042)	-0.023 (0.042)
13–15 years education	0.044 (0.024)	0.044 (0.024)	0.051 (0.024)	0.051* (0.026)	0.051* (0.026)	0.058* (0.026)	0.051 (0.028)	0.051 (0.028)	0.060* (0.028)
>16 years education	0.017 (0.027)	0.017 (0.027)	0.032 (0.027)	-0.011 (0.029)	-0.011 (0.029)	0.001 (0.029)	0.040 (0.030)	0.040 (0.030)	0.060* (0.030)

	Harassed/teased			Treated as if character is flawed			Treated without respect		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Not currently employed		-0.006 (0.023)	-0.035 (0.023)		-0.007 (0.024)	-0.029 (0.025)		-0.041 (0.027)	-0.074** (0.027)
Upper white collar worker		-0.014 (0.024)	-0.009 (0.024)		0.013 (0.026)	0.016 (0.026)		-0.037 (0.028)	-0.035 (0.027)
Physical and mental health									
Negative affect (standardized)			0.076*** (0.009)			0.072*** (0.011)			0.115*** (0.011)
Functional limitation (IADLs)			0.025 (0.014)			0.017 (0.016)			0.022 (0.017)
Self-rated health (1 = fair/poor)			0.053 (0.029)			0.031 (0.031)			0.020 (0.034)
Constant	1.50 (0.044)	1.56 (0.047)	1.43 (0.049)	1.71 (0.047)	1.69 (0.052)	1.65 (0.053)	1.82 (0.051)	1.79 (0.057)	1.73 (0.057)
Adjusted R <sup>2</sup>	0.060	0.060	0.083	0.142	0.144	0.159	0.124	0.125	0.156

IADLs, instrumental activities of daily living; OLS, ordinary least squares.

Unstandardized regression coefficients (and s.e.) are presented.

\*  $P < 0.05$ .

\*\*  $P < 0.01$ .

\*\*\*  $P < 0.001$ .