

ASSOCIATION BETWEEN BODY IMAGE DISPARITY AND CULTURALLY SPECIFIC FACTORS THAT AFFECT WEIGHT IN BLACK AND WHITE WOMEN

Objectives: Despite the higher prevalence of obesity in African American women, the desire for thinness remains higher among White women. We sought to determine if an association exists between body image disparity (BID) and women's perception on how race affects their weight.

Design: Sixty women participated in highly structured focus groups that used the nominal group technique. We asked, "How does being a Black (White) woman affect your weight?" Body image disparity (BID) was determined with the Stunkard Figure Rating scale by comparing the women's current body image perception to their ideal body image.

Results: Food preparation and selection were major factors affecting the weight of all Black women. However, as BID and perceived weight status increased, Black women also thought a lack of education on how to eat and how to maintain a healthy weight became important factors that affected their weight. White women with a larger BID often said that distorted expectations of achieving a thin figure affected their weight. White women with a smaller BID most often endorsed thinness as being the standard body type.

Conclusions: Perceptions of factors affecting a woman's weight varied by race and by body image. As BID increased for African American and White women, culturally specific themes emerged related to the women's weight and weight-related behaviors. Both groups of women desired a smaller body size, but the driving forces and barriers to achieving a lower weight were different by race. (*Ethn Dis.* 2007;17[suppl 2]:S2-34-S2-39)

Key Words: Body Image, African American, Women, Obesity, Culture

From the Department of Nutrition Sciences, University of Alabama at Birmingham, Birmingham, Alabama (JDA, LFG, CZM, WKJ).

Reprints will not be available from the authors. Address correspondence to: Jamy D. Ard, MD, 1675 University Blvd, Webb 441, Birmingham, AL 35294-3360, USA; 205-934-5564; 205-934-7050(fax); ardj@uab.edu

Jamy D. Ard, MD; Lori F. Greene, MS, RD; Christie Z. Malpede, MA; Wendy K. Jefferson, BS

Obesity, defined among adults as a body mass index (BMI) ≥ 30 kg/m², is an epidemic that continues to increase in the United States. According to the *Chartbook on Trends in the Health of Americans*, 65% of adults were overweight and 31% were obese in 1999–2000.¹ A significant racial difference in obesity status exists between White and African American women, with only a small difference seen in men.² In 1999–2000, one half of African American women in the United States were obese, while approximately 30% of White women were obese.¹

Despite the higher prevalence of obesity in African American women, research suggests that the desire to be thin is higher among White women than African American women.^{3,4} Reasons for this apparent paradox may be rooted in cultural attitudes that influence weight-control behaviors.^{5,6} For example, Baturka et al reported that among a group of African American women from all weight categories, most reported feeling dissatisfied with their weight and wanted to lose weight for a number of reasons, including health implications (eg, shortness of breath and worry of future medical problems), dissatisfaction with larger-size clothing fashions, and prohibiting enjoyable activities, such as beach vacations and playing with children. However, they reported that their dissatisfaction was inconsistent with their cultural belief of self-acceptance and valuing character above appearance, which deterred making changes to their eating patterns or physical activity levels.⁷

Many African American women have some level of body dissatisfaction and desire a lower weight.⁷ This body

dissatisfaction is tempered by cultural values as described above. Consequently, African American women tend to experience body dissatisfaction at a higher weight than White women.⁸ The extent to which purported cultural values affect body image perceptions among African Americans is unclear. Women that have higher body image dissatisfaction may tend to endorse cultural influences that are permissive of being overweight to allow for some level of psychological resolution between their current body image and an ideal body image that may be significantly smaller. Women near their ideal body image may tend to endorse cultural views that are supportive of maintaining a lower weight. These hypothesized associations may also vary by race.

In this study, we were interested in determining the cultural issues that affect the body weight of African American and White women who have a high body image disparity versus those that have a low or no body image disparity. We also wanted to determine cultural issues that may influence a woman's perception of her weight status.

METHODS

Participants

We recruited 60 women (50% African American) age ≥ 19 years from the Birmingham, Alabama, area by using local publications and informational flyers. Participants were excluded if they did not self-identify their primary race as African American or White. The study was approved by the institutional review board at the University of Alabama at Birmingham, and

informed consent was obtained from each study participant.

Measures

Demographic data. A self-report questionnaire was used to obtain information on age, race, education, marital status, and employment. Body weight was measured by using a Tanita digital scale (Model #BWB500A; Arlington Heights, IL) to the nearest .1 lb. Height was measured with a wall mounted stadiometer to the nearest .1 cm. Body mass index (BMI) was calculated as weight (kg) divided by height (m²). Overweight was defined as a BMI of 25–29.9 kg/m² and obese as a BMI \geq 30 kg/m².

The Stunkard Figure Rating Scale was designed to obtain information about one's perceived body image.⁹ Each participant was shown a series of nine body figures (9 was the largest). Each participant was asked to choose the body size she thought looked like her current figure and which figure she wanted to look like. Self-reported values for body size are considered accurate and unbiased. In a validation study of the body silhouette questionnaire, no significant differences were seen between self-reported and technician-measured mean values for weight, height, and BMI.¹⁰ The Stunkard Figure Rating Scale has also been validated in African American women.¹¹ The BMI associated with the body figures/silhouettes was derived from work done by Bulik et al.¹²

Procedures

A qualitative method of data collection, the nominal group technique (NGT), was used to conduct the group meetings and generate responses from participants.¹³ The NGT format is useful for eliciting and systematically organizing perceptions among participants by gathering equally weighted responses that offer valid representation of group views.¹⁴

The first step of the NGT process is for the facilitator to pose a specific question to the group. Each participant also receives a handout with the question printed on it. The African American groups were asked, "How does being a Black woman affect your weight?" and White groups were asked, "How does being a White woman affect your weight?" After the question was posed, participants were asked to work independently for five minutes and write down as many words or short phrases that reflected their individual perceptions in response to the question.

The second step involves sharing written responses with the group in a round-robin fashion. Each participant was asked to list one idea at a time. They were encouraged to make their responses brief and remain neutral (ie, refrain from giving positive or negative feedback) to help avoid influencing participants. An assistant numerically listed each response verbatim on a flip-chart, which was visible to each participant during the session.

The third step provided a time for clarification to ensure that all responses were understood by all members of the group. Again, participants were discouraged from sharing evaluative comments or opinions.

During the fourth step, participants were asked to carefully look over the responses generated by the group and choose three that were the most important to them in response to the question. Participants were then asked to rank order those three responses in order of importance to them (3 = most important and 1 = least important).

Analysis

The research team discussed the responses and through consensus combined similar responses/ideas into themes by racial groups. Only themes that were ranked by at least one participant from two separate focus groups are considered in this analysis. Furthermore, we considered the top two

themes chosen by women as being most important in affecting their weight. Correlations were calculated by using Pearson correlations in SPSS version 13 (SPSS Inc., Chicago, IL).

RESULTS

The demographics of each racial group and the total group are shown in Table 1. Most participants in our sample were young women with at least some college education. Approximately 27% of participants reported that their household income was <\$20,000/year. No significant differences in mean income and education level were seen by race. The mean BMI for the entire sample indicated that they were overweight (28.3 kg/m²); however, when the two groups were separated, the mean BMI for the African American women indicated that as a group they were obese (30.2 kg/m²).

The average silhouette size chosen by African American women to represent their current body size was 4.9. White women chose a similar current body silhouette, with an average of 4.7. The Stunkard silhouette sizes 4 and 5 represent a range in BMI of 23.1 to 26.2 kg/m². The average silhouette size chosen by African American and White women as their ideal body size was 3.3 and 3.2, respectively. Silhouette 3 represents a BMI of 20.9 kg/m². Mean BID (Table 1) was similar for both African American and White women (-1.5 and -1.6, respectively). The inverse relationship between BMI and BID was stronger for White women ($R^2=.76$, $P<.001$) than African American women ($R^2=.25$, $P=.005$).

The African American and White women's current measured weight and perceived weight status (silhouette which they chose as representative of their current size) is shown in Figures 1 and 2. More than half of the African American women were obese according to their BMI, but only one third chose

Table 1. Demographics of racial groups and total group

Variable	African American Mean ± SD	Caucasian Mean ± SD	Total Population Mean ± SD
Age (years)	34.1±7.60	31.4±7.90	32.7±7.80
BMI (kg/m ²)	30.3±6.19	26.6±5.92	28.3±6.27
Current figure rating	4.9±1.41	4.6±1.66	4.8±1.54
Ideal figure rating	3.3±.95	3.2±.61	3.3±.79
Body image disparity	-1.6±1.01	-1.5±1.38	-1.5±1.20
Education (%)			
High school	10.0	0	5.0
College	43.3	43.3	43.3
Graduate	46.7	56.7	51.7
Household income (%)			
<\$30,000	46.6	36.7	41.7
\$30,000–59,999	33.3	43.3	38.3
≥\$60,000	20.1	20.0	20.0
Marital status (%)			
Single	53.3	46.7	50.0
Married	26.7	40.0	33.3
Divorced	20.0	13.3	16.7
Employment (%)			
Full-time	80.0	63.3	71.7
Part-time	10.0	6.7	8.3
Student	6.7	20.0	13.3
Unemployed/Homemaker	3.3	10.0	6.7

BMI=body mass index; SD=standard deviation

a body figure that represented a BMI ≥30 kg/m². Approximately half of the White women were actually of normal weight (BMI 18.5–24.9 kg/m²). In spite of this, only 17% of the White

women chose their current body silhouette as one that correlated with a normal BMI. More than half of the White women chose a body silhouette that represented them as overweight.

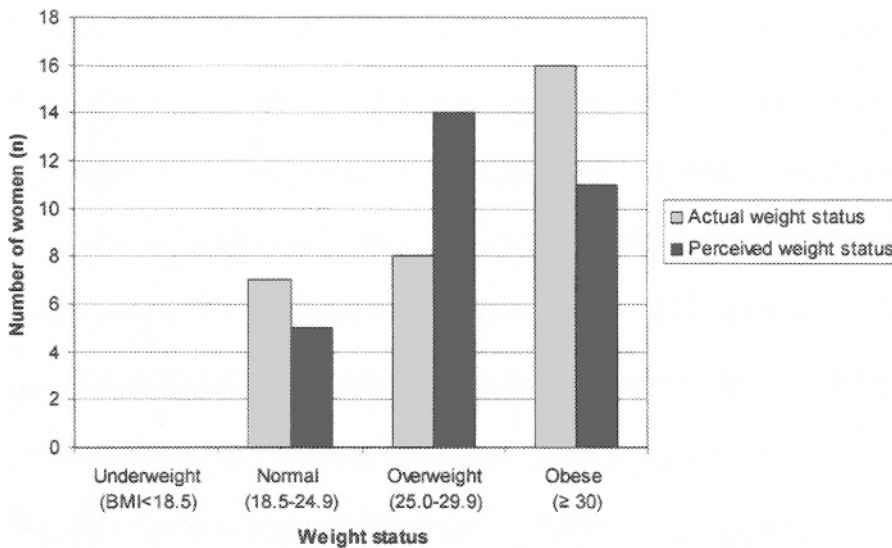


Fig 1. African American women's current and perceived weight status

Associations between the themes that affect African American and White women's weight and their perceived body image can be found in Table 2. The top five themes that African American women told us affected their weight were food preparation, food selection, lack of exercise, risk of chronic disease, and multiple roles that make it hard for them to make healthy choices. White women told us that their weight was most affected by distorted expectations of perfect body type, success dependent on being thin and looking beautiful, a standard of thinness, negative body image, and men's preferences for thin women.

African American women at any perceived weight status almost always stated that food preparation and selection affected their weight. Those African American women that perceived themselves to be overweight or obese also often chose themes related to lack of education on a healthy body size and how to eat; however, those who perceived themselves to be of normal weight did not. Normal-weight White women did not report any themes in common. However, those who perceived themselves as overweight and obese reported a common theme of distorted expectations that they, media, or society had for achieving the perfect body type. White women who perceived themselves as being overweight also reported that being thin was important to meet society's standards and achieve success, which affected their weight.

Table 3 shows the top five themes that African American and White women thought affected their weight with the corresponding mean BID and BMI for women that chose that theme. Seven African American women with the smallest BID (-.86) and BMI of 26.8 kg/m² chose a response about food selection habits. On the other hand, six White women with the smallest BID (-0.83) who also had the smallest mean BMI of 24 kg/m² chose the theme "the standard for ideal body shape is thin-

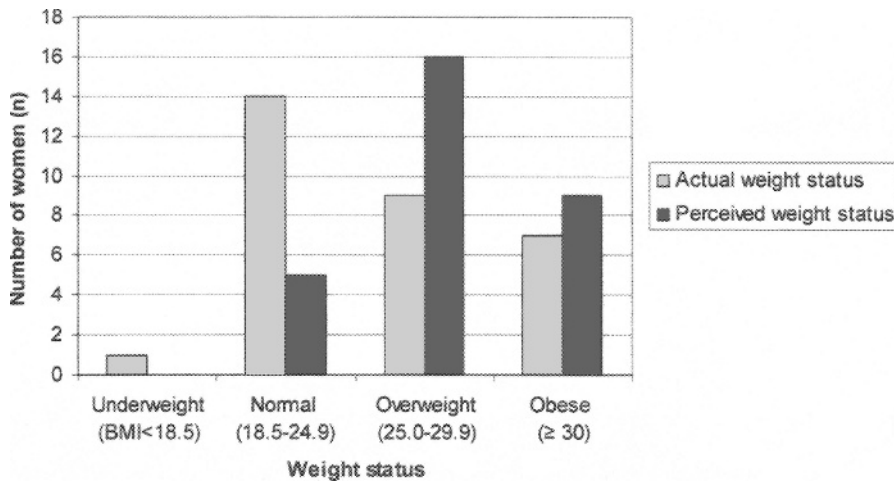


Fig 2. White women's current and perceived weight status

ness." Nine White women with the largest mean BID (-2.22) chose the theme of "distorted expectations of a perfect body type."

DISCUSSION

In this sample of highly educated, middle class African American and White women, we observed that 1) many normal-weight White women perceived themselves to be overweight; 2) several obese African American women perceived themselves to be only overweight; 3) both groups of women preferred smaller body images; 4) the

average body image disparity was similar for White and African American women; and 5) both groups of women chose the same ideal body image. When the body image ratings were associated with responses from the nominal groups, we observed a pattern of responses from African American women that revealed that at all levels of BID and weight status perception, food preparation and selection were major factors in their weight. The higher the BID and perception of weight status among African Americans, the more themes focused on lack of education on how to eat and understanding the importance of maintaining a healthy

body weight. We noted that White women of any given weight status or BID reported themes that dealt with standards and expectations to be thin. White women who were overweight appeared to perceive that achieving a "normal" or "ideal" body weight was unrealistic, whereas White women who were normal weight seemed to endorse the concept that thinness was ideal. These study findings suggest that as African American and White women perceive themselves as overweight/obese and have a larger negative body image disparity, certain culturally specific themes emerge that affect a women's weight.

Essentially no difference in body image disparity was seen between the African American and White women. Others have found similar results when they controlled for BMI, income, and marital status and suggest that socioeconomic status could be a stronger determinant than ethnicity in body dissatisfaction. They suggest that African American and White women in the upper classes might experience BID at a similar level, and differences in body image perception due to race may be weakened when socioeconomic status is medium to high among all racial groups.^{15,16} This may be true of our sample as well, since 95% of the women had at least some college education and

Table 2. Women's perceived weight status and associated weight-related themes

Tertiles of Perceived Weight Status	Top African American Themes (n)	Top White Themes (n)
Normal	Food selection habits (3) Food preparation (2) Limited clothing choices (2)	No common themes
Overweight	Food preparation (5) Lack understanding for maintaining healthy body weight (4) Food selection habits (3) Lack of exercise (3) Multiple roles prevent time to make healthy choices (3) Low self-esteem (3)	Success depends on being thin and looking beautiful (6) The standard for ideal body shape is thinness (4) Distorted expectations of perfect body type (3) Different standards for men and women (3)
Obese	Food preparation (5) Lack of education on how to eat (4)	Distorted expectations of perfect body type (5) Men's preferences for white women (3) Negative body image (2) Weight loss is a trendy obsession (2)

Table 3. Women’s mean body image discrepancy and BMI for a weight-related theme

	Mean BID	Measured BMI (kg/m ²)
African American women’s themes		
Food preparation (n=12)	-1.89	32.3
Multiple roles prevent time to make healthy choices (n=4)	-1.50	34.0
Lack of exercise (n=5)	-1.40	28.2
Risk of chronic disease and medical cost (n=3)	-1.33	33.9
Food selection habits (n=7)	-0.86	26.8
White women’s themes		
Distorted expectations of perfect body type (n=9)	-2.22	29.2
Men’s preferences for White women (n=4)	-2.00	27.4
Negative body image (n=5)	-1.40	26.2
Success depends on being thin and looking beautiful (n=9)	-1.10	25.6
The standard for ideal body shape is thinness (n=6)	-0.83	24.0

n = number of women who chose a response within the theme as being one of the top two which affect their weight; BMI=body mass index; BID=body image disparity

their median household income level was nearly \$40,000. However, African American women in other focus groups have expressed that they experience a tremendous struggle with the mainstream cultural representations and aesthetic ideals. They feel they must accommodate to the mainstream ideal of beauty to be accepted within society.¹⁷ Nonetheless, body image dissatisfaction may be strongly influenced by socioeconomic status, but the perception a woman has of her body or weight relative to her actual weight status is likely influenced by race. This is suggested by our findings that even though the BID among these groups of young, middle class African American and White women was similar, they responded very differently when asked, “How does being a Black (White) woman affect your weight?”

African American women with the smallest BID and BMI said that food selection affected their weight. Quite possibly these women recognized that food selection was important, and therefore, they make some conscious decisions in their diet to help manage their weight. White women with the smallest BID and BMI most often rated the standard for ideal body shape was thinness as being one of the most

important issues to affect their weight. This may indicate that these White women believe in this concept and strive to be thin or at least of normal weight, possibly indicating adoption of this standard. However, White women with the largest mean BID declared that distorted expectations of a perfect body type, portrayed primarily by the media, greatly affected their weight. This finding may indicate that these women feel that this “ideal body” is not obtainable. Thus, they may feel that their culture or racial group has distorted expectations of a perfect body.

According to our results, some African American women appear to be concerned about their weight, and subsets are aware of healthy dietary options that may be helpful in managing their weight. On the other hand, many African American women may be unaware of what a healthy body size is, partially due to a permissive culture and teachings to focus more on their personal style and spirituality rather than being concerned about their body size simply for the sake of appearance.^{6,17} These women may be less likely to engage in health behaviors necessary to maintain a healthy body weight. In contrast, White women appear to be empowered to manage

their weight (or become underweight) because their culture endorses a thin, slender body. However, some White women may feel that those standards are unrealistic and choose to accept a larger body size despite the pressures from their culture. Measures should be taken to increase society’s awareness of a healthy body size in both African American and White cultures to help prevent extreme measures in African American and White women (binging, bulimia nervosa, anorexia nervosa, etc).

One limitation of this study includes our sample of generally young adult women who were students or employees in a university setting in a metropolitan city in Alabama. Our results may not be representative of other women in a different geographic location and of a different age, income, or education status. Other similar studies are needed to determine if these results can be generalized to other populations. This study is also descriptive and cannot make any inferences concerning causation of differences in weight and weight-related behaviors between African American and White women.

In response to these findings, weight-management interventions are needed for African American women that increase awareness of true weight status and the health consequences associated with obesity. These programs are needed in order to prevent/reduce obesity and its related co-morbidities among African Americans. More programs should be developed for White women to encourage a healthy body image and to educate them about the signs/consequences of eating disorders. Targeted interventions will yield healthier lifestyles, body image, and self-esteem among African American and White women.

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AUTHOR CONTRIBUTIONS

Design concept of study: Ard, Jefferson
Acquisition of data: Ard, Jefferson, Greene, Malpede
Data analysis and interpretation: Ard, Jefferson, Greene, Malpede
Manuscript draft: Ard, Greene
Statistical expertise: Malpede
Acquisition of funding: Ard
Supervision: Ard, Jefferson, Greene