

Dissatisfaction With Body Size Among Low-Income, Postpartum Black Women

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Objective: To explore the body size perceptions of low-income, postpartum Black women.

Design: Prospective, exploratory survey using a culturally sensitive figure rating scale, to assess body size perceptions.

Setting: Four inner city clinics in Washington, DC.

Participants: Low-income, postpartum Black women ($N = 105$).

Method: A validated, culturally sensitive figure rating scale was used to assess perception of current, typical, healthy, and preferred body sizes of participants. Derived scores were used to assess other body image measures.

Main Outcome Measures: Measures were mean scores of perceived sizes and derived scores representing body size satisfaction, adherence to typical size, and health ideal size.

Results: Over 75% of subjects exhibited dissatisfaction with current body size. The perceived size for the typical (reference) woman was larger and not representative of the perceived healthy or preferred sizes of the sample. No difference between preferred and healthy sizes was observed.

Conclusions: Two thirds of the participants were dissatisfied with their current body size and over half desired weight loss. The lack of difference between preferred and healthy body sizes suggests desire for a body size that meets both cultural standards of attractiveness and personal standards of health. Nursing opportunity for engaging in anticipatory interventions is highlighted. *JOGNN*, 36, 144-151; 2007. DOI: 10.1111/J.1552-6909.2007.00127.x

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Body image (BI), defined as the “picture of our own body which we form in our mind ...” (Schilder, 1950), is a dynamic and complex psychosocial construct. It has been under investigation for more than half a century (Feingold & Mazzella, 1998) and includes both attitudinal and perceptual components (Thompson, 1996). For the most part, BI has been examined primarily in investigations about pathologic eating disorders, obesity, and other illness conditions (Feingold & Mazzella). As a result, significant knowledge about BI and its relationship to illness has been gathered. However, understanding of this phenomenon relative to “normal” nondisease states such as pregnancy and postpartum is still lacking.

Research indicates that feelings about the body in normal people affect many decisions of life, including those relating to survival (Kraus, 1999). Additionally, life events characterized by profound changes in the body reportedly impact individuals’ self-perceptions, self-esteem, and feelings of depression and directly affect individuals’ likelihood to engage in healthy behaviors (Grogan, 2006). Evidence exist that BI results from cultural values and consequently differs by race and gender (Thompson). Hence, there is an evident need to explore this phenomenon both in normal states of life and among ethnic groups.

The aim therefore, of this exploratory study, was to investigate the BI of Black women between 0 and 6 months postpartum. Using a culturally sensitive scale, the study sought to elicit normative, subjective perceptions of “current,” “healthy,” “typical,” and “preferred” body sizes and explore BI measures previously unexplored in this group.

Profound changes in the body have an impact on individuals' self-perceptions, self-esteem, feelings of depression, and likelihood to engage in healthy behaviors.

Background

BI Across Different Life States in Women

Beginning in adolescence and continuing through the elderly periods of life, BI concerns have been documented for women in several studies (Kraus, 1999; Thompson, 1996; Thompson et al., 2006; Wilfley et al., 1996). Relative to ethnic differences, general findings indicate that Black women exhibit less dissatisfaction, more positive evaluation of, and less negative cognitions toward their BI (Altabe, 1996; Klesges, DeBon, & Meyers, 1996). Moreover, they exhibit a preference for larger body size (Bhuiyan, Gustat, Srinivasan, & Berenson, 2003; Gluck & Geliebter, 2002). Among older and college-age Black women, studies document that having a negative BI is associated with decreased self-esteem (Caldwell, Brownell, & Wilfley, 1997; Siegel, Yancey, Aneshensel, & Schuler, 1999).

Investigations of the BI experience of postpartum Black women relative to body dissatisfaction and body size preferences are limited and have been largely restricted to evaluations of their attitudes and not their shape perceptions (Morin, Brogan, & Flavin, 2002; Walker, Freeland-Graves, Milani, George, et al., 2004; Walker, Freeland-Graves, Milani, Hanss-Nuss, et al., 2004). Consequently, in-depth explorations of the cultural references and cultural values of shape, attractiveness, and personal perceptions of body size among postpartum Black women have been essentially neglected. One reason for this may be that researchers have not been able to effectively assess this construct because of the lack of culturally adequate tools (Patt, Lane, Finney, Yanek, & Becker, 2002). For example, it is documented that preferences for larger hips and thighs are salient to the Black culture (Kumanyika, 1987). Yet, these features are not usually assessed in BI studies. Furthermore, the large variety of measures (over 40) developed to assess BI (Grabe & Hyde, 2006) have been based on Caucasian samples, and by sheer number (Altabe) reveal the inherent complexity of the construct.

BI Assessment Tools

A diversity of indexes and methodologies has been used to assess the two facets (attitudinal and perceptual) of BI

(Gittelsohn et al., 1996; Thompson, 1996). Attitudinal measures, characterized by a focus on an individual's cognitions, beliefs, and feelings about their physical body, are usually questionnaires assessing preferences and satisfaction with body parts and function. Examples of frequently used attitudinal measures include the Body Shape Questionnaire (Cooper, Taylor, Cooper, & Fairburn, 1987; Rosen, Jones, Ramirez, & Waxman, 1996) and the Body Cathexis Scale (Secord & Jourard, 1953).

Methods to assess perceptual accuracy of physical appearance, especially body size and shape, vary from the use of dynamic mirror and light techniques to that of contour and figure rating scales (FRSs) (Gittelsohn et al.; Thompson). FRSs generally contain nine silhouette drawings of men or women, arranged in order of size from thin to obese. Subjects are directed to select a single numbered figure in the scale in response to specific questions posed. When perceptions of physical appearance are the focus, FRSs have been the preferred index for measuring BI (Gittelsohn et al.; Welch, Gross, Bronner, Dewberry-Moore, & Paige, 2004): a preference facilitated by FRS's face validity, ease of use, lack of need for verbal fluency on the part of subjects, and correlation with other measures of BI (Gittelsohn et al.; Thompson & Altabe, 1991). Most frequently, FRSs have been used to assess attributes of current and "ideal" body sizes (Thompson & Altabe). However, measures such as dissatisfaction have also been assessed using discrepancy indexes created by subtracting current size from ideal size (Hildebrandt & Walker, 2006).

To date, measures used to assess dissatisfaction for postpartum Black women have not been culturally sensitive (Morin et al., 2002; Walker, Freeland-Graves, Milani, George, et al., 2004; Walker, Freeland-Graves, Milani, Hanss-Nuss, et al., 2004). Thus, a need exists for conducting BI investigations using validated, culturally sensitive FRS. This study therefore sought to determine the normative body size perceptions of postpartum Black women using a culturally validated FRS to help fill in the knowledge gap in this area.

Methodology

Participants

Four inner city clinics in Washington, DC, were assigned to participate in this study by the managing entity the Public Benefits Corporation (PBC). Clinic selection was based on patient population (predominantly Black), patient yield (average number of postpartum patients/month), and clinic location. Data were collected in spring 1999. Over a period of 10 weeks, 105 Black women aged 16 to 39 years and between 0 and 6 months postpartum were recruited to participate. Seventy-seven women (73%) completed the study and received complimentary token

baby gifts. The mean postpartum month at recruitment was 2.5 months. The mean postpartum month at release was 6 months. The sixth-month period was selected primarily because clinics' trends indicated that the majority of postpartum patients stopped coming for preventive health care at about the sixth month.

Twenty-eight women were lost to follow-up because they had moved, disconnected telephones, switched memberships to other health plans or clinic sites, or failed to keep clinic appointments after multiple rescheduling efforts. Many subjects indicated more than one of the above listed reasons for failing to keep previously scheduled clinic appointments. Therefore, subgroup categorization of women by reason of loss was impractical.

Procedure and Data Collection

The protocol for this study, a subset of a larger study investigating maternal perception and infant nutrition and weight issues, was approved by the institutional review boards of the overseeing university and the PBC. Potential subjects met with the primary investigator at the time of recruitment and were given both verbal information and a written consent form, which outlined the study's purpose, and participants' expected commitment and compensation.

Data were gathered at two time points: recruitment (T1) and release time (T2). Recruitment (T1) denotes the time women entered the study, and the average postpartum month for entry was 2.5 months. Release time (T2) denotes the time women were terminated from the study and the average postpartum month for release was 6 months. Gathering of demographic and BI data, specifically perceptions of healthy, preferred, and typical body sizes, occurred at recruitment. Collection of anthropometric (weight and height) data and the perception of current body size occurred at release time, just prior to women's termination from the study. Although, anthropometric data have been previously used as a measure of overweight in postpartum women (Mostert, Steyn, Temple, & Olwagen, 2005; Walker, Freeland-Graves, Milani, George, et al., 2004; Walker, Freeland-Graves, Milani, Hanss-Nuss, et al., 2004), this study selected to utilize the data only as a descriptive variable because of the inconclusive relationship between BI perceptions and weight and body mass index (BMI) (Wardle, Waller, & Fox, 2002).

Measures

Anthropometric data (weight and height) were measured using clinics' stadiometers and scales and were used to calculate women's BMI at 6 months postpartum. Other demographic measures collected were age in years and parity. All body size perceptions were captured using the Reese Scale, an FRS for Black women (Patt et al., 2002). Figure rating scales previously utilized for assessing body size among Black women have been appraised as "inade-

quate" since displayed images lacked physical characteristics perceived as unique for this population (Patt et al.; Thompson, 1996). The Reese Scale is a culturally appropriate instrument designed to be both a psychometrically stable and a socially acceptable tool for examining Black women's normative perceptions of their body sizes (Patt et al.). Similar to previously existing FRS, the Reese Scale contained nine standardized figures of Black females, ranging incrementally in value, from severely obese designated as #1 to severely thin designated as #9 (Figure 1). The scale was validated by its developers using a sample of 50 Black women to compare its psychometrics and social acceptability with three other validated FRS: the Stunkard, Anderson, and Williamson scales (Anderson, Janes, Ziemer, & Phillips, 1997; Stunkard, Sorenson, & Schulsinger, 1983; Williamson, 1990). The Reese Scale was found to perform similarly with comparable psychometrics, thus demonstrating criterion validity. Moreover, the scale's reliability or the variance in BI perceptions among women of similar BMI was also observed to be comparable to that of the other three scales. However, with regard to acceptability and cultural saliency, the Reese Scale emerged as the most preferred for Black women and therefore had the best face validity for this population (Patt et al.).

Scale Application

Given the cultural appropriateness and validity of the Reese Scale, this study selected to use this FRS to facilitate the subjective exploration of BI relative to physical size and shape, and to facilitate ease of data collection. Subjects were presented with a laminated copy of the Reese Scale and instructed to normatively rate their perceptions and preferences of body size by selecting one of the nine figures that best represented their answer to four questions posed. The first three questions asked at T1 were as follows: (a) which of these figures do you think represents a healthy body size for a woman your age (HS = healthy size)? (b) which of these figures would you prefer to look like at 6 months (PS = preferred size)? and (c) which of these figures do you think represents the typical (reference) woman in your neighborhood (TS = typical size)?

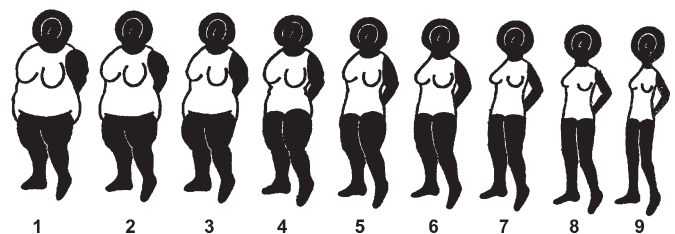


FIGURE 1
The Reese Body Image Scale. Reprinted with permission from ISHIB from Patt, M.R. (2002). *Ethnicity & Disease* 12, 1, 54-62.

The fourth perception question “which of these figures do you think represents your current body size (CS = Current Size)?” was asked at the “sixth-month” well-baby clinic visit after which women were released from the study.

Using the responses provided to the four questions, scores were created, according to the method proposed by Thompson, Penner, and Altabe (1990) to (a) assess satisfaction with current body size, (b) ascertain whether women attained their perceived healthy size, and (c) determine if women subscribed to the perceived typical woman as the reference for ideal or preferred body size. *Satisfaction* with current body size, was calculated as satisfaction = current size – preferred size. *Health ideal*, which assessed a woman’s attainment to her perceived healthy body size, was calculated as health ideal = current size – healthy size. Finally, *adherence* to the perceived typical female size was calculated as adherence = current size – typical size. The range of scores possible for each of the three measures was from 8 to –8.

Data Analyses

Descriptive statistics were conducted on relevant demographic variables with means \pm standard deviation and frequencies (percents) determined as appropriate. Body image relative to size perceptions was determined using the Reese FRS. Means and standard deviations were calculated for each size perception category (healthy, preferred, typical, and current) by summing all the values of the figures selected in response to each question and dividing that total by the number of respondents answering that question. All means were compared using Student’s *t* test and analysis of variance to ascertain differences between means. Discrepancy scores in the satisfaction, health ideal, and adherence measures were also calculated and reported. Calculations were conducted at the group level using SPSS version 6.1, and all statistical tests were performed at the 5% significance level.

Results

Participant Characteristics

The 77 women with complete data had a mean age \pm standard deviation of 25.21 \pm 5.63. Over half were between the ages of 20 and 29, and over 55% were overweight or obese. Detailed demographic characteristics are presented in Table 1.

Means of Perception Categories

The four body size perceptions assessed were preferred size (PS), typical size (TS), healthy size (HS) and current size (CS). Since the figures in the Reese Scale were arranged with the smallest figure having the largest numerical value, larger mean values of size perception therefore indicated smaller figure sizes on the scale and vice versa (see Figure 1). The largest figure size selected by this sample of

TABLE 1
Demographic and Anthropometric Characteristics of Sample (n = 77)

Variables	Mean \pm SD
Age in years	25.21 \pm 5.63
Weight in kilograms	75.03 \pm 21.45
Number of children	2.58 \pm 1.76
BMI at 6 months	28.44 \pm 7.15

women was for typical (reference) size and the smallest was for preferred size (Table 2). All comparisons between the means of the four perceptions examined were significant, except for the comparison between healthy and preferred sizes (Table 3). The mean current size was significantly larger than the mean preferred size ($p < .001$) and also significantly larger than the mean healthy size ($p < .002$). However, the mean current size was significantly smaller than the mean typical size ($p < .011$). Furthermore, the mean typical size was significantly larger than both the mean healthy size ($p < .000$) and the mean preferred size ($p < .000$) (Table 3).

Measures of Satisfaction, Adequacy, and Healthiness

Analyses of the satisfaction variable, derived by subtracting preferred size from current size, determined that over 75% of the participants exhibited dissatisfaction with their current body size. The level of dissatisfaction represented a collective measure of the 19.5% of women who desired an increase and 55.9% who desired a decrease in their sizes. The range of values for the satisfaction variable was –6 to 2, and the variable was not significantly correlated with age. Analyses of the health ideal measure also revealed that 79.2% of the women perceived themselves as not having met their perceived healthy size. The scores for health ideal also ranged from –6 to 2. Finally, adherence, which was derived by subtracting typical size from current size, had scores ranging from –7 to 6. Using this measure, it was determined that over one third (40.3%) of the women perceived themselves to have equaled or exceeded the perceived size for the typical female (Table 4).

Discussion

As far as the authors know, this is the first study to use a culturally sensitive FRS to examine body size perceptions among low-income, postpartum Black women. A primary conclusion of this study using measures derived from the Reese Scale was that a high level of body size dissatisfaction existed in this group of Black women. This is striking since it is contrary to other reports in the literature indicating that Black women may not have body

TABLE 2
Mean Body Size Perceptions (n = 77)

<i>Perception Category</i>	<i>M ± SD</i>
Current body size (CS)	5.79 ± 1.94
Preferred body size (PS)	6.71 ± 1.28
Healthy body size (HS)	6.49 ± 1.11
Typical body size (TS)	5.03 ± 1.99

dissatisfaction issues (Grabe & Hyde, 2006). In this study, three quarters of the women showed dissatisfaction with their current body sizes including 55.9% who perceived they were too large and wanted to lose weight and 19.5% who perceived they were too small and wanted to gain weight.

Findings provide evidence of high body size dissatisfaction among this sample of low-income postpartum Black women.

This observation is consistent with findings by Walker, Timmerman, Kim, and Sterling (2002) that showed that Black women evidenced less BI dissatisfaction in the first 6 weeks postpartum compared to other ethnic groups but

TABLE 3
Differences in Body Size Perceptions (n = 77)

<i>Categories of Means Assessed</i>	<i>Mean Difference ± SD</i>	<i>p Value</i>
Current – typical = (5.79 – 5.03)	0.76 ± 2.57	.011
Current – preferred = (5.79 – 6.71)	-0.92 ± 1.81	.001
Current – healthy = (5.79 – 6.49)	-0.70 ± 1.93	.002
Healthy – typical = (6.49 – 5.03)	1.46 ± 1.88	.000
Preferred – typical = (6.71 – 5.03)	1.68 ± 1.92	.000
Healthy – preferred = (6.49 – 6.71)	-0.22 ± 1.01	.058

TABLE 4
Derived Perceptions Measures—Satisfaction, Health Ideal, and Adherence (n = 77)

<i>Perception Measures</i>	<i>n (%)</i>	<i>Mean Difference ± SD</i>	<i>p Value</i>
Satisfaction = CS – PS			
Dissatisfaction with current body size	58 (75.3)	-0.92 ± 1.81	.000
Health ideal = CS – HS			
Did not meet ideal healthy size	61 (79.2)	-0.70 ± 1.93	.002
Adherence = CS – TS			
Conforming to or exceeding the size of the typical woman	31 (40.3)	0.76 ± 2.57	.011
CS (current size)=5.79; PS (preferred size)=6.71; HS (healthy size)=6.49; TS (typical size)=5.03			

had an increase in BI dissatisfaction from 3 to 6 months postpartum. Additionally, it supports emerging observations that Black adult and adolescent women do experience body dissatisfaction issues (Grabe & Hyde, 2006; Rucker & Cash, 1992; Wingood, DiClemente, Harrington, & Davies, 2002) and that postpartum women do experience body shape dissatisfaction (Jenkin & Tiggemann, 1997). Though dissatisfaction was evidenced, the reasons for dissatisfaction cannot be empirically determined due to the design and data collection sequence of the study. However, given that women in this study generally selected a significantly larger figure size for their current size compared to their healthy and preferred sizes may suggest that not achieving their perceived healthy or preferred sizes may be one reason for their BI dissatisfaction. Furthermore, though the design of the study precludes the determination of the causes of the BI dissatisfaction, these results are, nevertheless, significant particularly because BI dissatisfaction is reportedly associated with depression and negative self-esteem, all three of which can be intensified during the postpartum period.

Objective measures indicated that greater than 55% of participants were overweight. Additionally, based on their selected current body size, over 40% had attained or exceeded the mean typical size; yet, subjective figure selections revealed that the majority of women (60%) perceived themselves to be smaller than the typical woman, as evidenced by the smaller mean current size compared to mean typical size. The reason for this apparent discrepancy is not known but may be a function of culture and/or a function of postpartum women.

Little is known about the reference or standards for body size preference among postpartum Black women.

Nevertheless, this particular sample perceived typical women to be large and their selection of a smaller preferred body size indicated that they did not necessarily desire the typical female size as their ideal size. It would have been clinically insightful to correlate weight measures with perceptions in this study. However, given that the relationship between weight measures, especially BMI and BI perceptions, is reportedly mixed (Wardle et al., 2002), correlation of perception with weight measures was not pursued. Collectively, these findings highlight that this sample of postpartum Black women do not subscribe to the typical reference woman for body size and prefer a smaller body size than the typical woman. However, little is known about the models or references for body size preference among postpartum Black women and indicates an area for further exploration.

Finally, there was no difference in women's perceived healthy and preferred sizes, suggesting that these were essentially the same for this group. This observation is consonant with what would be expected and suggests that interventions that explore the relationship between health and body size preferences may be effective for addressing the needs of these women during this period.

A limitation of this study is that with reference to findings of dissatisfaction and evaluations of healthy and typical sizes, it is unknown whether women considered both postpartum and nonpostpartum women in their estimations. Assessment of this would have furthered understanding of the findings.

Nursing Implications

Relative to other periods during women's lives, consensus exists that the postpartum period is notably one of the more critical. Characterized by pronounced physical, psychological, and social changes, it has the potential to impact women's health in numerous ways (Tambyrajia & Mongelli, 2002). Among the significant changes women undergo during this period, weight and mood changes are the most salient. A study assessing the impact of postpartum weight and shape on self-esteem and depression observed that many postpartum women were less satisfied with their postpartum weight and shape 4 weeks postpartum, and that for most of the women, especially younger women, the weight retained was greater than they had anticipated (Jenkin & Tiggemann, 1997). This finding

may be particularly significant for minority women since it is reported that they experience greater postpartum weight retention and greater negative outcomes of overweight (Keppel & Taffel, 1993; Parker & Abrams, 1993). Furthermore, Herrick (2002) determined that relative to mood, particularly postpartum depression (PPD), Black mothers were twice as likely to experience PPD as Caucasian mothers.

Therefore, for the purposes of clinical guidance, the findings of this study coupled with others suggest that it would be useful for nurses who have sustained and repeated contact with postpartum patients to gain greater understanding and awareness of the relationship between culturally influenced negative BI perceptions and associated outcomes and to also garner skills that would enable early identification and treatment of this problem in vulnerable populations.

Furthermore, as reported earlier, it has been suggested in the literature that Black women may not have negative BI issues. However, results of this study, which was conducted in a low-income, low-resource population, suggest otherwise. Findings point toward the need for nurses to be very cognizant of the potential for negative BI in postpartum Black women especially since they are least likely to seek help (Herrick, 2002). Moreover, knowing that BI is a very culturally laden construct, knowledge and design of culturally appropriate resource options for minority women of low resource would also be a useful nursing endeavor to promote the health of postpartum women.

Conclusions

In 1997, the "Expert Work Group Report on Maternal Weight Gain" indicated a lack of studies assessing maternal body size perceptions (Suitor, 1997). Since then, very few studies have been conducted to address this issue, especially among low-income, ethnic minority women. This study provides evidence of the normative size perceptions of postpartum Black women, the results of which suggests a need for clinicians to have a heightened awareness of issues relating to BI in this population to positively impact their future health outcomes.

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