Representation of ideal figure size in *Ebony* magazine: A content analysis

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Studies examining trends over time in mainstream magazines observe decreases in women’s figure size, and increases in figure exposure and amount of diet/exercise content. Little is known, however, regarding the content of African American magazines. Utilizing methods from classic studies, this investigation examined content in *Ebony*, a magazine with wide African American readership, from 1969 to 2008. We included the full content of \( N = 462 \) issues, with a total of \( N = 539 \) cover images of women, of which \( N = 208 \) were full-body shots. Analyses indicated a curvilinear relationship between time and figure exposure, with a recent trend toward more full-body shots, similar to mainstream magazines. Contrary to previous studies, however, the majority of figures across time were average size, and a curvilinear relationship between time and diet/exercise content showed peak content in the early 1990s. Results are considered in context of research indicating African American women show less body dissatisfaction than other racial/ethnic groups.

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Introduction

Considerable attention has been paid to the role of media in the development and maintenance of eating disorders. Researchers have posited that repeated exposure to societal ideals regarding thinness and attractiveness promotes thin-ideal internalization, which in turn fosters body dissatisfaction and contributes to the development of eating disorders (Stice, 2001; Striegel-Moore & Bulik, 2007). In support of this etiologic model, researchers have not only conducted correlational, longitudinal, and experimental studies examining sociocultural variables (Bradford & Petrie, 2008; Irving, 1990; Stice & Shaw, 1994; Stice, Spangler & Agras, 2001), but also examined changes in popular media images and content over time.

The slender body type as a beauty ideal has become especially salient in mass media, and several investigators have pointed specifically to increasingly thin female body depictions in magazines (Garner, Garfinkel, Schwartz, & Thompson, 1980; Syepeck, Gray, & Ahrens, 2004; Wiseman, Gray, Mosimann, & Ahrens, 1992). Assessing the content of four popular women’s fashion magazines—Cosmopolitan, Glamour, Mademoiselle, and Vogue—Syepeck et al. (2004) found that cover model figure size significantly decreased between 1980 and 1999 in three of the four magazines analyzed. Similarly, the classic studies of Playboy centerfolds (Garner et al., 1980; Syepeck, Gray, Etu, Ahrens, Mosimann, & Wiseman, 2006; Wiseman et al., 1992) demonstrated that the body size of centerfold models decreased from 1959 to 1978, and then remained at a low estimated size through the 1990s.

Researchers studying magazines have also attempted to quantify the amount of print dedicated to efforts to control shape and weight, including diet and exercise. For example, Garner et al. (1980) found that the amount of articles focused on dieting for weight loss in Harper’s Bazaar, Vogue, Ladies’ Home Journal, Good Housekeeping, Woman’s Day, and McCall’s significantly increased from 1959 to 1978; the most significant increase occurring in the last ten years of that time span. Wiseman et al. (1992) extended the findings of the former study, discovering a significant increase in the number of diet and exercise articles through 1988. Davalos, Davalos, and Layton (2007) found that, among highly circulated magazines for women (one million readers or more), the proportion of diet and body image headlines (i.e., headlines suggesting the content of the articles within focused on diet and the appearance of the body) increased significantly in recent decades. These authors observed that between 1976 and 1986, diet and body image headlines accounted for 8% of cover topics; by 1996 the category nearly doubled, representing 15% of cover topics (Davalos et al., 2007). In general, researchers conclude that decreasing female figure size representations, coupled with an increased emphasis on diet and weight loss, promote and reflect the internalization of a thin-ideal and development of body dissatisfaction that is an observed risk-factor for the development of eating disorders (Stice, Schupak-Neuberg, Shaw, & Stein, 1994; Stice & Shaw, 2002).
though multiple studies have examined magazines as a source of thin-ideal representations, the majority of research to date has focused on mainstream media predominantly circulated in caucasian populations, limiting the conclusions that can be drawn concerning the generalizability of observed thin-ideal representations to other ethnic or cultural groups. while long-standing notions suggest that african american women retain some level of protection from thin-ideal internalization, body dissatisfaction, and eating disorders (baskin, ahlawalia, & resnicow, 2001; padgett & brio, 2003; wildes, emery, & simons, 2001), other researchers have questioned whether cultural expectations regarding body shape and weight may be changing due to increased exposure to mainstream societal ideals (roberts, cash, feingold, & johnson, 2006; rogers wood & petrie, 2010; shaw, ramirez, trost, randall, & stice, 2004). in a cross-sectional study of black and non-black college students between 1983 and 2001, cash, morrow, hrabosky, and perry (2004) found that black female students’ body satisfaction had remained relatively constant, with the specific exception of declining weight satisfaction from the early to mid-1990s. a meta-analytic review of temporal trends in black-white differences in body image found that studies employing global body satisfaction measures reported increasing racial/ethnic differences, with more favorable body image reported among black women; however, studies employing weight-focused measures showed diminishing differences between racial/ethnic groups over time (roberts et al., 2006).

To help explicate and contextualize these findings, additional research is needed to examine messages about body shape and weight in magazines that are primarily marketed to and consumed by african american readers in order to investigate whether messages concerning thin-ideals and have followed similar trends to those observed repeatedly in mainstream magazines. one such study of JET magazine—a magazine with a wide readership among african american women and men—found that body size depictions of african american women represented as the “beauty of the week” significantly increased from 1953 to 2006 (dawson-andoh, gray, soto, & parker, 2011), contrary to analyses of images of women from mainstream magazines. though body image researchers have previously focused on positive nature of body satisfaction among african americans, these findings should also be considered in the context of extensive research suggesting that obesity and obesity-related health issues are more prevalent among african americans than caucasian americans and increasing over time (crawford, story, wang, Ritchie, & sabry, 2001; ostbye, malhotra, & landerman, 2011). to date, very little research has considered how such findings translate to changes in body dissatisfaction or changes in the content of african american magazines. recent content analyses of african american magazines suggest that unhealthy food advertisements drastically outnumber healthy eating editorials (Martin & campo, 2006) and note less focus on health and weight compared to mainstream magazines (duerksen et al., 2005; kean & prividera, 2007). however, no studies to date have carefully examined trends in african american magazines concerning the number of diet/exercise articles presented over time.

this investigation sought to expand upon the existing literature through the examination of the cover and context of Ebony magazine, a periodical of general interest with wide circulation in African American populations. using methods similar to previous studies (e.g., cusumano & Thompson, 1997; luff & gray, 2009; sypeck et al., 2004) this investigation aimed to examine trends over time in (a) the amount of body shown in representations of women on the covers, (b) the figure size of women represented on the covers, and (c) the number of diet/exercise for appearance articles included in the table of contents.
cutoff points for these three categories. For judgments regarding the amount of body shown/type of shot, the inter-rater reliability was acceptable (ICC = .92).

**Rating of figure size.** Only full-body shots (N = 208) were coded for their ratability (i.e., whether figure size could be determined from the image). There was 100% agreement regarding ratability, and only one image was excluded from further analysis, because most of the body between the head and feet of the figure was fully obscured. However, the full content of one issue (September 2000), including four full-body shot cover images of women, was removed from the Internet between the first and second set of ratings. This resulted in a sample size of N = 203 full-body shots which were then rated using the 9-point Pulvers Rating Scale for dimensional analyses. Consistent with prior investigations (Bhuiyan, Gustat, Srinivasan & Berenson, 2003; Bulik, Wade, Heath, Martin, Stunkard, & Eaves, 2001; Cardinal, Kaciroti, & Lumeng, 2006) we used a figure rating size ≥ 5 as indicative of overweight, ratings between 3 and 4 as normal weight, and ratings ≤ 2 as underweight for categorial analyses. In cases where the average rating by the two raters was between two categories, the independent ratings of a third rater were used to assign the image to one or the other category. An acceptable level of inter-rater reliability for ratings of figure size was demonstrated on the 9-point dimensional scale (ICC = .87). The most discrepancies in figure size ratings were observed between the ratings “4” and “3”, both of which represent normal body sizes, and were the most commonly recorded ratings of figure size in general.

**Relationship between figure size and individual or group representation.** Following the initial figure size ratings detailed above, an additional post hoc hypothesis regarding the relationship between representations of women on the covers and the size of their figures was developed and tested. Specifically, this exploratory analysis was designed to test whether women with a larger figure size were more often represented in groups with other people (as opposed to individually) than women with smaller figure size. All full-body cover images were coded for whether the image was the only person represented on the cover (1 = individual) or whether there were any other people on the cover with her (2 = group). Consistent with the above analyses, images with figure size ratings ≥ 5 were categorized as large (overweight), however ratings from 1 to 4 were collapsed into a small (not overweight) category due to power considerations.

**Rating of weight/shape control content.** All of the tables of contents (N = 462) were rated for the presence of articles that included content related to dieting, exercising, or other procedures for reducing weight or changing shape for the purposes of appearance. The intent of the rating scale was to include content that clearly detailed procedures for changing weight and shape, and exclude content that clearly detailed similar procedures for health reasons alone (e.g., “a heart-healthy diet”) or referred only to fashion and not diet or exercise (e.g., “see yourself the long, lean look”; “body-huggers for the super fit”). We also strove to maximize reliability by creating a list of approximately 40 words and phrases signifying this content (e.g., diet, calories, toning, slimming, and pounds). We initially considered using a rating scale reflecting the number of articles per issue with this content on a scale, however, there were so few issues with more than one article with this type of content mentioned explicitly in the table of contents that the 0/1 absence/presence rating presented more validity and ease of use (and likely additional reliability). Using this procedure, the entire table of contents were rated for each issue with 0 = content not present, and 1 = content present, and the raters demonstrated an acceptable level of reliability (ICC = .88).

**Data Analysis**

SPSS version 15.0 was used for all analyses. Intraclass correlations (two-way random effects models, using an absolute agreement definition) were conducted to examine the degree of consistency between two trained assessors in the following ratings: (a) the ratings of whether the image of a female on the cover was full-body, partial-body, or headshot; (b) the ratings of the figure size of women on the covers of magazines using the figure rating scale; and (c) the ratings of diet, shape, and weight content in the tables of contents.

For the analyses examining cover model figure size, percentage of full-body cover images, and diet and exercise content, overall strength of relationship between time and the magazine variables was first assessed using Pearson’s correlations on the raw data. Data were then aggregated by year (through creating a mean for each year) in order to obtain one data point for each measure per year, to facilitate observations over time. To investigate the relationship between time and each of the magazine variables, linear regression and mean-centered time-squared curvilinear analyses were conducted, with weighted least squares regression utilized in cases where heteroscedasticity was present due the variable number of stimuli that were ratable per year. In the cases where both models were significant, hierarchical regression with the linear effect in Step 1, and the quadratic in Step 2, was used to assess whether the quadratic component of the relationship between the magazine variables predicted over and above the linear effect. Only significant curvilinear relationships that improved upon the linear relationship are reported here to maintain parsimony. Finally, we used Pearson’s chi-square analyses or Fisher’s exact test and analyses of variance for descriptive characterization of our data across four decades, 1969–1978, 1979–1988, 1989–1998 and 1999–2008.

**Results**

At the time the project was conducted, there were N = 462 copies of *Ebony Magazine* available in digital form, including cover images and tables of contents. On the N = 462 covers that were posted, there were N = 539 images of women that were logged and then rated (due to the fact that some covers had no women, some had one woman, and some had multiple women).

**Amount of Body Displayed**

Analyses were first conducted to examine the percentage of cover images containing a full-body shot over the 40-year time span, with an image being defined as full-body if it included the torso down to the widest part of the hips. While no significant linear relationship was found between amount of body displayed and time, results from centered, time-squared curvilinear regressions indicated a significant quadratic relationship, $F(2, 36) = 5.84, p < .01, R^2 = .25$. Thus, while a larger percentage of cover images currently are full-body shots compared to the early 1990s, there was also a large proportion of full-body photographs on magazine covers during the 1970s, $\beta = 2.15, p < .005$ (see Fig. 1).

Secondary Pearson chi-square analyses were used to characterize the type of body shot per decade by designating shots as full-body, partial-body, and headshots. Significant differences in the ratio of full-body, partial-body, and headshots by decade emerged ($\chi^2[6, 539] = 85.05; p < .001$), most notably, in the period from 1979 to 1988 almost half of the cover images were headshots, whereas in the period from 1999 to 2008 only 3% of the images were headshots ($p < .005$). As Table 1 shows, the most frequent type of
Fig. 1. Scatterplot with quadratic regression line of the percentage of images with full body shots.

Fig. 2. Scatterplot with quadratic regression line of the percentage of magazines with diet and exercise content.

Table 1  
Rating of amount of body shown by decade.

<table>
<thead>
<tr>
<th>Decade</th>
<th>Headshots N (%)</th>
<th>Partial-body N (%)</th>
<th>Full-body N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969–1978</td>
<td>30 (22.4)</td>
<td>47 (35.1)</td>
<td>57 (42.5)</td>
</tr>
<tr>
<td>1979–1988</td>
<td>45 (45.5)</td>
<td>27 (27.3)</td>
<td>27 (27.3)</td>
</tr>
<tr>
<td>1989–1998</td>
<td>28 (16.5)</td>
<td>94 (55.3)</td>
<td>48 (28.2)</td>
</tr>
<tr>
<td>1999–2008</td>
<td>4 (3.0)</td>
<td>57 (42.2)</td>
<td>74 (54.8)</td>
</tr>
</tbody>
</table>

shot in the first decade (1969–1978) was full-body shot (42.5%); most frequent type of shot in the second decade (1979–1988) was a headshot (45.5%); the most frequent type of shot in the third decade (1989–1998) was a partial-body shot (55.3%); and the most frequent type of shot in the fourth decade was a full-body shot (54.8%). Table 1 displays the percentages of the three image types across the four decades.

Figure Size

Results from weighted least squares linear regression indicated a significant increase in cover model figure size over the 40 year span, F(1, 38) = 8.97, p < .005, R² = .25. Further analysis by decade indicated a significant difference in mean figure size, F(3, 190) = 3.79; p = .011, with higher figure ratings in the current decade (1999–2008) compared to the decade immediately previous (1989–1998) and the first decade studied (1969–1979) (p < .05). As Table 2 shows, the mean figure size increased from 3.59 (SD = 1.04) in the first decade assessed to 4.15 (SD = 1.24) in the current decade. While the average figure size increased over time, no significant relationship was found between year and the likelihood of a woman being categorized as overweight, (F[1, 38] = 3.57, p = .07, R² = .08) or underweight, (F[1, 38] = 0.07, p = .79, R² = .00). Overall, 36 (17.7%) of full-body cover images were rated as overweight, 12 (5.9%) were rated as underweight; the vast majority of images were assigned to the normal weight category (N = 155, 76.4%).

Relationship between figure size and individual versus group representation. Results from independent t-tests comparing the mean figure rating size between women depicted individually versus those depicted in groups were non-significant, t(201) = –1.31; p = .19. However, women rated as overweight were significantly more likely to be depicted in groups compared to non-overweight women, χ²(1, 203) = 4.70; p < .05. Of the 36 women represented in full-body shots whose figure size rated 5 or greater, a strong majority (N = 27, 75.0%) were represented along with other people on the cover, whereas almost equal proportions women rated at a 4 or below (N = 167), were represented individually (N = 71, 42.5%) and in a group (N = 96, 57.5%).

Shape and Weight Control for Appearance Content

For shape and weight content, the results of the hierarchical regression indicated a curvilinear relationship between diet and exercise content and year (β = –1.67, ΔR² = .16, p < .005), over and above the linear relationship (β = .33, R² = .11, p < .05). As shown in Fig. 2, the diet and exercise articles reached a peak in the early 1990s with the largest percentage of issues containing diet and exercise content at that time. Thus, while only 15.4% of the tables of contents featured diet and exercise in the first 10 years of analysis, the next 20 years saw an increase to 35.9%, and approximately 30% of magazines mentioned diet and exercise content in the past decade.

Discussion

This is the first study of trends over time in the cultural expectations of thinness in Ebony, a popular culture and lifestyle magazine read by large numbers of African American men and women. Three main analyses were conducted, reflecting the analyses conducted in classic studies of cultural expectations of thinness in magazines. The results of analyses from Ebony magazine showed similarities to classic studies of figure exposure and diet/exercise content in mainstream magazines, but key differences from classic studies concerning the figure size of women on the covers. This study found that the amount of the body revealed in cover photographs showed a curvilinear relationship over time. Thus, while the majority of the images in the first and most recent

Table 2  
Mean figure size rating of full body shots by decade.

<table>
<thead>
<tr>
<th>Decade</th>
<th>N</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969–1978</td>
<td>57</td>
<td>3.59 (1.04)*</td>
</tr>
<tr>
<td>1979–1988</td>
<td>28</td>
<td>3.79 (1.24)*ab</td>
</tr>
<tr>
<td>1989–1998</td>
<td>47</td>
<td>3.60 (0.75)*</td>
</tr>
<tr>
<td>1999–2008</td>
<td>71</td>
<td>4.15 (1.24)*</td>
</tr>
</tbody>
</table>

Note. Rows that do not share superscripts differ at the p < .05 level in Tukey’s post hoc tests.
decade were full-body shots, the majority of images in second and third decades were headshots and partial-body shots, respectively. These observations are consistent with prior investigations of mainstream magazines, which have also observed curvilinear relationship in the number of full-body shots, with higher levels of exposure earlier in the time period, lower levels in the middle decades, and much higher levels again in recent years (e.g., Luff & Gray, 2009; Sypeck et al., 2004). Investigators researching mainstream women’s magazines have concluded that this trend to portray more of the body may amplify the effect of messages regarding the ideal size of women portrayed, given that readers are then exposed more frequently and explicitly to these ideal figure sizes (Sypeck et al., 2004).

Analyses of body size in Ebony showed that the majority of women portrayed on the cover are normal weight and that the proportion of overweight or underweight images appearing did not differ significantly over time. Indeed, across the forty years of investigation more than three-quarters of the women on the covers of Ebony were rated as normal weight. Although mean body size remained in the average range, it did increase significantly over time. These results are largely consistent with recent findings from JET magazine (Dawson-Andoh et al., 2011), another general-interest African American magazine read by both men and women, and may represent and reflect an acceptance of women with healthy and normal body weights in the African American community. More specifically, greater body size acceptance and satisfaction may be both influenced by and come out of media portrayals of African American women. Interestingly, the consistent focus on normal weight women in Ebony is at odds with prior research suggesting an increasing focus on thinness seen in magazines with primarily Caucasian readership (Sypeck et al., 2004; Wiseman et al., 1992). In general, these results are consistent with a sociocultural model positing that the lower level of eating pathology in certain ethnic minority groups compared to Caucasians is in part due to less cultural pressure to be thin (Stice, 1994).

Regarding the amount of diet and exercise content focused on shape/weight control, the findings from Ebony magazine again reflected observations in the mainstream literature suggesting this type of content increased dramatically between 1969 and 1998 (Davalos et al., 2007; Garner et al., 1980; Wiseman et al., 1992). While a downward trend in diet and exercise content has been present in Ebony since the late 1990s, it is notable that approximately 1 out of every 3 magazines continued to contain such content in the last decade of analysis. It is difficult to assess the likely impact of these messages among African American readers. Some researchers have concluded that these messages may contribute to increases in dieting behavior and the development of eating disorder symptoms (Luff & Gray, 2009; Wiseman et al., 1992). However, education concerning weight loss and diet—particularly when the content is factually correct and evidence-based—is also observed to inform healthy lifestyle decisions (Campos & Martin, 2007; Duerksen et al., 2005; Luff & Gray, 2009) and may be particularly important in the context of an obesity health crisis (Baskin et al., 2001; Crawford et al., 2001). Further research is needed regarding the context and content of recent articles, and the direct impact of these articles on the attitudes and behaviors of readers.

One exploratory analysis indicating that women with figure size in the overweight range were more likely to be depicted in groups (as opposed to individually) than women in the normal-to-underweight range was similarly suggestive, and open to various interpretations. It is possible that depicting overweight women in groups sends the message that they are not attractive enough to be presented singly on the cover; however, it is also possible that the representation with other women or with family members sends the implicit message that overweight women are socially accepted. More fine-grained analyses are needed—for example comparisons of the types of groups (with children, with husbands, and with friends) in which overweight, normal weight, and underweight women are depicted. Furthermore, experimental studies might help to understand the impact of particular types of representations on women exposed to these images.

Limitations of this investigation also deserve consideration. First, it focuses on a single magazine—Ebony—across time. The results from this magazine must be replicated in more African American magazines to draw any stable conclusions about representations of women’s body size and shape and the cultural value of thinness over time more generally in African American media. Research concerning magazines targeting subgroups of the general population frequently identify variance in the value placed on thinness or shape and weight control (e.g., Frederick, Fessler, & Haselton, 2005; Milillo, 2008; Wasylikwa, Emms, Meuse, & Poirier, 2009), and this likely holds true for African American niche magazines, for example those specifically for the music industry, or those geared specifically toward one gender. Because Ebony has a large circulation and is intended for the broadest possible African American audience, it is of particular interest as a generalist magazine. Thus, the comparisons that can be made to mainstream magazines read primarily by women or that focus more exclusively on fashion are somewhat limited. Analyses of other African American magazines such as Essence, which are read by women and have a stronger focus on fashion, would help address this limitation. It is important to investigate similar issues in other widely consumed African American magazines, as well as those intended for within-culture subgroups, as well as those intended for other ethnic/cultural minority groups.

Second, the images rated were from clearly identifiable time periods. While raters were blind to study hypotheses and previous research, pre-existing biases concerning expectations of figure size from different time period may have influenced ratings. Periodicals frequently contain multiple indicators of date or era (e.g., mention of current events in the headlines and tables of contents, clearly identifiable trends in hairstyle and fashion, references to the decade), thus it is impossible to completely separate the images from time period in which they occur. However, a method using randomly presented images with major time indicators erased would have significant methodological advantages and should be considered in future research. Other important associations with figure size or shape that are particularly salient within African American culture—such as observations of class and celebrity, and culturally specific references to African American identity—also warrant further investigation. Other types of body assessment (e.g., waist-to-hip ratio) or other types of photographic shots (e.g., images that display particular body parts) may be more salient for cultural assessment of the values regarding body shape important to African American media as well.

In conclusion, the results of the present study suggest that the portrayal of women in one African American magazine shows both similarities and differences from the thin-ideal portrayals frequently noted in mainstream media. In general, results from Ebony suggest that more of the body is being shown in recent years allowing for clear assessment of figure size and shape. Nevertheless the majority of these images were rated as normal weight, which may be a reflection of a broader acceptance of different body sizes in African American culture and a healthy ideal. Diet and exercise content as represented in the table of contents has increased over time, but does not appear to be increasing in recent years. As noted previously, these findings provide additional sociocultural context to the observation that African American women report less body size dissatisfaction than Caucasians and less cultural pressure to be thin (Stice, 1994).
References


