The College Health and Wellness Study: Baseline Correlates of Overweight among African Americans

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ABSTRACT *Overweight and obesity are epidemic in the United States, particularly among minority populations. This epidemic contributes to the development of chronic conditions that occur later in life such as type 2 diabetes and hypertension. Therefore, it is important to identify factors associated with the development of obesity during young adulthood. We conducted a cross-sectional survey among students graduating from a Historically Black College or University (HBCU) in the Mid-Atlantic region. Participants were 392 predominantly African American seniors graduating in the spring of 2003. Data were collected using a self-administered paper and pencil questionnaire which focused on weight, weight management activities, individual and familial weight history, and health status indicators. Participants were on average 24 ± 5 years of age and 69% female; over 90% identified as African American or Black. According to NIH guidelines, about 30% of males and 28% of females were considered overweight, 12% of males and 7% of females were considered obese, and 7% of males and females were considered extremely obese. Significant correlates of being more overweight were being married, having children, lower socio-economic status, weight-loss attempts, personal and family history of overweight, and poorer health status. These data suggest that among this sample, the prevalence of overweight and obesity is similar to other populations of young African American adults. Familial factors such as socio-economic status and family weight history were important correlates of overweight. Overweight is a significant problem in this population, and these data should be useful for developing weight loss interventions aimed at young adults.*

KEYWORDS *African Americans, Obesity, Overweight, Young adults.*

INTRODUCTION

Obesity is a significant problem in the U.S.; national data has pinpointed a 61% increase in prevalence from 1991–2000.¹ Obesity has been identified as a precursor to many chronic diseases and is probably the strongest risk factor for type 2 diabetes.^{2,3} It is also well known that compared to their white counterparts, African Americans are disproportionately affected by the burden of type 2 diabetes.^{3–6}

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Therefore, in African Americans it is crucial to examine weight-related factors early in life in order to prevent chronic disease that may develop in the middle years. The 1995 National College Health Risk Behavior Survey (NCHRBBS) suggests that the prevalence of at least overweight is 48.7% in African American students compared to 34.6% in white students.⁷ African American women are particularly affected. In fact, the Coronary Artery Risk Development in Young Adults (CARDIA) study in individuals aged 18–30 reported that the prevalence of overweight was twice as high in black women as in white women.⁸ Furthermore, overweight Black women were 3.4 kg heavier on average than overweight white women.

Much of the previous research on obesity has focused on children or middle-aged adults; correlates of obesity in young adulthood are less well studied. Additionally, predictors of adult onset of obesity, in which longitudinal data on weight and related factors are needed, are also understudied. Therefore, we conducted a cross-sectional study, with a primary emphasis on overweight, obesity, and other weight-related factors among young adults (primarily African American) who were graduates of a Historically Black Institution in 2003. We plan to follow these individuals over time in a prospective cohort study. In this manuscript, we present baseline individual and familial correlates of overweight.

MATERIALS AND METHODS

Study Setting and Participants

We conducted a cross-sectional survey among 406 young adults (primarily African American) graduating in the spring of 2003 from an urban Historically Black University located in the Mid-Atlantic region. The entire graduating undergraduate class was eligible to participate, regardless of age, sex, or ethnicity. Overall, 855 (406 participated in our study) students were scheduled to graduate, 36% male, 63% female. Graduates were on average 26 years of age, and 89% identified as being African American or Black.

Following the receipt of Institutional Review Board (IRB) approval, a recruitment letter was sent to the students' permanent home addresses. This letter provided them with information about the study and invited them to participate. Subsequently, a self-administered paper and pencil survey was conducted during University-sponsored activities for seniors. As seniors waited in line to receive their graduation regalia, they were recruited to participate in the survey. Stations for data collection were set-up in the student union for 2 days. The survey took approximately 30–45 min to complete. Written informed consent was obtained from each participant, and investigators were present to answer questions. Upon completion of the questionnaire, each participant received a \$10.00 incentive.

In this analysis, we excluded six individuals who had incomplete data on height and/or weight, two individuals who had incomplete data on sex, and six due to current pregnancy. This yielded a final study sample of 392 individuals; 122 males (31%) and 270 females (69%).

Measures

Socio-Demographic Variables Respondents reported on personal demographic information including race, U.S. citizenship, marital status, number of children,

place of birth and residence while growing up, and income. Additional items also addressed parental information including place of birth, college attendance, home ownership, and employment status and occupation when the participant was approximately age 12 (to give respondents a time point of reference).

Weight-Related Variables Body Mass Index (BMI) was calculated in kilogram per squared meter using self-reported height and weight; participants were categorized according to National Institute of Health (NIH) guidelines:⁹ underweight <18.5, normal 18.5–24.9, overweight 25.0–29.9, obese 30.0–34.0, extreme obesity (obesity II) ≥ 35 . Other weight-related variables were also assessed: self-perception of overweight, weight loss attempts and methods, doctor's request of weight loss, the current weight of family members, participants' weight history, and family members', significant others' and societal perceptions of weight.

The Perceived Impact of Weight on Social Interactions scale (PIWSIS) was operationalized with a set of 13 items adapted from previous studies, mostly related to social interactions of young adults with chronic health conditions.^{10,11} The items form one thirteen-item subscale that assessed the respondents' perceptions of the extent to which their weight negatively influenced social interactions (e.g., "because of my weight people often treat me differently"). Respondents indicated the extent of agreement with each item using a scale of five anchored points which included "Strongly agree," "Agree," "Undecided," "Disagree," or "Strongly disagree." Individual scores are calculated by summing the answers of the 13 items. Total score for the subscale can range from 13 to 65, with lower scores indicating perceptions of greater negative impact. The standardized alpha for a subscale using these 13 items was 0.94.

Health Status Variables General health status was assessed by asking participants to rate their general health as excellent, very good, good, fair, or poor. Participants were also asked if a physician had ever diagnosed him/her with high blood pressure, diabetes, cancer, heart disease, or breathing problems such as asthma. Participants were also asked if they received support services as a student with a disability.

Statistical Analysis

Socio-demographic, weight-related, and health status variables were summarized using means and frequencies. All weight-related and health status variables were stratified by gender, and χ^2 tests and *t*-tests were used to determine if there was a statistically significant difference between males and females.

Correlates of overweight or obesity ($\text{BMI} \geq 25$) were determined using logistic regression models, stratified by gender, to determine the odds ratio for socio-demographic, weight-related, and health status variables with being overweight/obesity. No multivariate adjustment was conducted as data were stratified by gender, and most participants were of similar age (the linear association between age and BMI was not statistically significant). Because the data were self-reported, data were missing on various questions, despite the fact that investigators were present to clarify questions when necessary. Therefore, to achieve maximal use of the data, we allowed the sample size to vary slightly for different correlate variables.

All analyses were conducted using STATA statistical software, release 7.0 (College Station, Texas).¹²

TABLE 1. Selected socio-demographics for 392 college seniors

Characteristics	
Age (years) [†]	23.69 ± 5.45
Sex	
Female	270 (68.9)
Race ^o	
Black	353 (91.2)
U.S. citizen [†]	
Yes	350 (89.7)
Marital status ^ψ	
Single, never married	361 (92.3)
Married or living together	16 (4.1)
Separated/divorced/widowed	14 (3.6)
Number of children	
0	336 (86.2)
1+	56 (14.3)
Current living situation	
Family members	144 (36.7)
Friends/classmates	69 (17.6)
Dorm mates	72 (18.4)
Alone	107 (27.3)
Annual income [†]	
<\$20,000	268 (68.7)
\$20,000–\$40,000	82 (21.0)
\$40,001–\$60,000	22 (5.6)
\$60,001–\$80,000	9 (2.3)
\$80,001–\$100,000	7 (1.8)
>\$100,000	2 (0.5)
Employment income	
Yes	262 (66.8)
Family support	
Yes	213 (54.3)
Financial aid	
Yes	130 (33.2)
Savings or investments	
Yes	72 (18.4)
Family circumstances	
Place of childhood growth ^ϕ	
United States	342 (87.9)
Africa	13 (3.3)
Caribbean	30 (7.7)
Other	4 (1.0)
Mother graduated from college	
Yes	165 (42.1)
Father graduated from college ^ϕ	
Yes	140 (36.0)
Mother's working status at age 12 ^γ	
Employed	233 (75.2)
Unemployed	49 (15.8)
Unknown	28 (9.0)
Father's working status at age 12 ^δ	
Employed	239 (73.5)

TABLE 1. Continued

Characteristics	
Unemployed	9 (2.8)
Unknown	77 (23.7)
Family home ownership when growing up ^ψ	
Yes	235 (60.1)
Family economic hardship when growing up	
Yes	115 (29.3)

All results are presented as n(%) or mean ± SD.
[‡]N = 390, ^ωN = 387, ^ψN = 391, ^ϕN = 389, ^γN = 310, [∘]N = 325.

RESULTS

Characteristics of the Study Sample

Socio-Demographic Variables Selected socio-demographic characteristics of the study sample are presented in Table 1. Participants were on average 24 years of age. The majority of the sample was female (69%), African American or Black (90%), and grew up in the United States (88%). A small percentage was born in Africa (3%) or the Caribbean (8%). Over 90% were single, and about 14% had one or more children. Participants reported diverse living situations as 37% lived with family members, 18% with friends or classmates, 18% with dorm mates and 27% lived alone. Over 65% reported having incomes <\$20,000 per year from various sources.

Participants also reported on family circumstances. About 42% and 36% of respondents reported that their mother or father graduated from college, respectively. The majority indicated that their parents were employed when they were approximately age 12. A large percentage (60%) reported that their family owned their home, and 29% reported that their family experienced economic hardship when the respondent was growing up.

Weight-Related and Health Status Variables Weight-related and health characteristics by sex are presented in Table 2. The mean BMI was 26 kg/m² for males and 25 kg/m² for females. According to NIH guidelines, about 30% of males and females were considered overweight, 12% of males and 7% of females were considered obese, and approximately 7% of males and females were considered extremely obese. Although differences in weight status were not statistically different between males and females, more females considered themselves to be overweight and had a doctor request that they lose weight than males (both *p* < 0.02). Of those who gained or lost weight during college, there was no difference in the amount of weight between males and females.

Many participants were attempting weight loss, although more females were trying to lose weight than males (45 vs. 26%, *p* < 0.001). Whereas both males and females used physical activity to lose weight, more females reported dieting to lose weight than males. More males (32%) than females (13%) reported that they were trying to gain weight (*p* < 0.001). When asked about the size preference for males and females, responses did not vary by sex. Respondents indicated that normal weight was preferable, although roughly 20% responded that size doesn't matter.

TABLE 2. Weight related variables and health status among 392 college seniors by sex

Characteristics	Male (<i>N</i> = 122)	Female (<i>N</i> = 270)	<i>p</i> value
Weight related variables			
Body mass index (BMI)	26.34 ± 5.56	25.14 ± 5.77	0.053
Weight status			
Underweight	2 (2.0)	14 (5.2)	0.205
Normal/optimal	56 (48.0)	144 (53.3)	
Overweight	37 (30.3)	75 (27.8)	
Obese	15 (12.3)	19 (7.0)	
Extremely obese	9 (7.4)	18 (6.7)	
Self perception of overweight			
Yes	25 (20.5)	96 (36.0)	0.002
Self perception of obesity			
Yes	6 (5.0)	12 (4.5)	0.840
Doctor requested weight loss			
Yes	11 (9.0)	51 (19.2)	0.011
Weight gain during college (lbs)	36.46 ± 46.87	26.73 ± 33.10	0.114
Weight loss during college (lbs)	47.91 ± 58.50	34.70 ± 41.58	0.492
Attempting weight loss			
Yes	31 (25.8)	119 (45.1)	<0.001
Physical activity for weight loss			
Yes	44 (37.9)	121 (45.8)	0.152
Dieted in the past to lose weight			
Yes	30 (25.2)	126 (47.0)	0.000
Age at first diet (years)	18.53 ± 5.25	18.35 ± 4.15	0.854
Attempting to gain weight			
Yes	37 (31.9)	34 (13.0)	<0.001
Perception of men's preference of female size			
Slightly underweight	4 (3.3)	9 (3.3)	0.746
Normal weight	80 (66.7)	165 (61.1)	
Slightly overweight	14 (11.7)	35 (13.0)	
Doesn't matter	22 (18.3)	61 (22.6)	
Perception of women's preference of male size			
Slightly underweight	3 (2.5)	2 (0.8)	0.107
Normal weight	85 (70.3)	203 (75.8)	
Slightly overweight	9 (7.4)	8 (3.0)	
Doesn't matter	24 (19.8)	55 (20.5)	
Significant other encourages			
Lose	6 (9.7)	27 (14.8)	0.474
Gain	8 (12.9)	17 (9.3)	
Stay the same	48 (77.4)	139 (76.0)	
Family encourages			
Lose	14 (16.5)	74 (31.6)	0.003
Gain	12 (14.1)	13 (5.6)	
Stay the same	59 (69.4)	147 (62.8)	
Family weight characteristics			
Mother overweight	38 (32.5)	103 (39.0)	0.223
Father overweight	25 (22.9)	56 (24.0)	0.824
Mother's mother overweight	22 (25.6)	78 (39.4)	0.025

TABLE 2. Continued

Characteristics	Male (N = 122)	Female (N = 270)	p value
Mother's father overweight	8 (13.3)	26 (19.4)	0.304
Father's mother overweight	14 (21.5)	53 (34.0)	0.067
Father's father overweight	6 (11.8)	18 (16.4)	0.446
Significant other overweight	11 (15.1)	29 (15.2)	0.981
Perceived impact of weight on social interactions scale (PIWSIS)	55.99 ± 9.46	58.66 ± 7.38	0.007
Participant wieght history			
Overweight as a child			
Yes	17 (14.8)	49 (18.4)	0.397
Overweight as a teen			
Yes	15 (12.7)	47 (17.9)	0.207
Health status variables			
Health status			
Excellent	23 (18.9)	36 (13.4)	0.264
Very good	54 (44.3)	109 (40.5)	
Good	39 (32.0)	96 (35.70)	
Fair	5 (4.1)	22 (8.2)	
Poor	1 (0.8)	6 (2.2)	
Hypertension			
Yes	7 (5.8)	9 (3.3)	0.258
Diabetes			
Yes	0 (0)	4 (1.5)	0.176
Cancer			
Yes	3 (2.5)	1 (0.4)	0.055
Heart disease			
Yes	1 (0.8)	3 (1.1)	0.788
Breathing problems			
Yes	20 (16.4)	47 (17.5)	0.793
Any health problem			
Yes	28 (23.0)	60 (22.2)	0.873
Disabled			
Yes	0 (0)	1 (0.37)	0.499

All results are presented as n(%) or mean ± SD; % deviate by characteristic due to missing values.

Similarly, the majority of respondents reported that family and significant others encourage them to stay the same size. More females reported that family encourages them to lose weight than males ($p = 0.003$). Participants reported the current weight status of parents and grandparents; no differences by sex were observed. Overall, many participants reported that family members were overweight, with mothers and grandmothers having the highest percentages. Approximately 13–18% reported being overweight as a child or teenager (no difference by sex). Males reported lowers scores on the Perceived Impact of Weight on Social Interactions Scale, indicating that their weight had more of a negative impact on their social interactions ($p = 0.007$).

Health status variables did not differ by sex. Most rated their health as excellent, very good, or good. Health conditions were very uncommon with the exception of breathing problems, with 16% of males and 18% of females reporting

TABLE 3. Selected socio-demographics among 392 college seniors by weight outcomes and sex

Characteristics	Weight Status BMI ≥ 25 vs. < 25 kg/m ²	
	Male OR (95% CI)	Female OR (95% CI)
U.S. citizen		
Yes	1.55 (0.42, 5.81)	1.72 (0.76, 3.91)
Marital status		
Single, never married	1.0	1.0
Married or living together	4.46 (0.48, 41.2)	3.96* (1.03, 15.3)
Separated/divorced/widowed	5.58 (0.63, 49.3)	0.89 (0.21, 3.8)
Number of children		
0		
1+	3.03* (1.0, 9.12)	1.69 (0.85, 3.47)
Current living situation		
Family members	1.0	1.0
Friends/classmates	0.48 (0.17, 1.3)	1.03 (0.51, 2.1)
Dorm mates	0.91 (0.28, 3.0)	0.96 (0.49, 1.9)
Alone	0.80 (0.34, 1.9)	1.03 (0.55, 1.9)
Annual income		
$\leq \$20,000$	1.0	1.0
$> \$20,000$	1.36 (0.63, 2.95)	1.34 (0.80, 2.26)
Employment income		
Yes	1.46 (0.68, 3.14)	1.29 (0.77, 2.17)
Family support		
Yes	0.48 (0.23, 0.99)	0.79 (0.49, 1.29)
Financial aid		
Yes	0.74 (0.34, 1.59)	1.21 (0.73, 2.02)
Savings or investments		
Yes	0.62 (0.26, 1.47)	0.52 (0.26, 1.04)
Family circumstances		
Place of childhood growth		
United States	1.0	1.0
Africa	0.22 (0.02, 2.02)	0.78 (0.18, 3.34)
Caribbean	0.33 (0.08, 1.31)	0.46 (0.16, 1.33)
Other	—	—
Mother graduated from college		
Yes	0.77 (0.38, 1.57)	0.99 (0.60, 1.62)
Father graduated from college		
Yes	0.38* (0.18, 0.80)	1.00 (0.6, 1.67)
Mother's working status at age 12		
Employed	1.0	1.0
Unemployed	3.84 (0.96, 15.4)	1.42 (0.69, 2.91)
Unknown	0.73 (0.20, 2.72)	0.46 (0.14, 1.48)
Father's working status at age 12		
Employed	1.0	1.0
Unemployed	1.15 (0.15, 8.59)	5.35 (0.59, 48.9)
Unknown	1.15 (0.44, 2.98)	0.71 (0.37, 1.33)
Family home ownership		
Yes	0.71 (0.34, 1.47)	1.09 (0.67, 1.79)
Family economic hardship		
Yes	1.48 (0.68, 3.21)	2.19** (1.30, 3.74)

Dashes indicate that variables were dropped from the model or non-sensical odd ratios were obtained.

* $p < 0.05$, ** $p < 0.01$.

TABLE 4. Weight related and health status variables among college seniors by weight-related factors and sex

Characteristics	Weight Status BMI ≥ 25 vs. < 25 kg/m ²	
	Male OR (95% CI)	Female OR (95% CI)
Weight related variables		
Doctor requested weight loss		
Yes	—	29.0** (10.0, 83.9)
Attempting weight loss		
Yes	62.07** (8.06, 477.8)	7.90** (4.53, 13.79)
Physical activity for weight loss		
Yes	12.01** (4.64, 31.1)	4.86** (2.86, 8.23)
Dieted in the past to lose weight		
Yes	15.27** (4.30, 54.3)	4.48** (2.66, 7.52)
Attempting to gain weight		
Yes	0.23** (0.10, 0.53)	0.11** (0.03, 0.37)
Significant other encourages		
Lose	1.0	1.0
Gain	—	—
Stay the same	—	—
Family encourages		
Lose	1.0	1.0
Gain	—	—
Stay the same	—	—
Family weight characteristics		
Mother overweight	2.55* (1.14, 5.69)	1.93* (1.17, 3.20)
Father overweight	1.40 (0.57, 3.44)	2.87* (1.54, 5.35)
Mother's mother overweight	1.20 (0.45, 3.17)	2.19** (1.23, 3.92)
Mother's father overweight	4.43 (0.81, 24.1)	1.76 (0.74, 4.18)
Father's mother overweight	1.04 (0.32, 3.39)	2.78** (1.39, 5.56)
Father's father overweight	2.50 (0.41, 15.1)	2.58 (0.93, 7.21)
Significant Other overweight	2.84 (0.69, 11.7)	1.92 (0.87, 4.26)
Participant weight history		
Overweight as a child		
Yes	3.83* (1.17, 12.6)	2.72** (1.44, 5.15)
Overweight as a teen		
Yes	18.04** (2.29, 142.4)	19.09** (7.23, 50.4)
Perceived impact of weight on social interactions scale (PIWSIS) (median ≤ 62 vs. > 62)	0.75 (0.36, 1.58)	0.48** (0.29, 0.79)
Health status variables		
Health status		
Excellent	1.0	1.0
Very good	0.75 (0.28, 2.00)	0.82 (0.36, 1.89)
Good	1.57 (0.56, 4.43)	2.58* (1.14, 5.81)
Fair	4.36 (0.42, 45.3)	6.06** (1.87, 19.6)
Poor	—	4.55 (0.72, 28.6)
Any health problem		
Yes	1.45 (0.62, 3.40)	1.01 (0.56, 1.81)
Breathing problems		
Yes	1.62 (0.61, 4.30)	0.96 (0.51, 1.82)

Dashes indicate that variables were dropped from the model or nonsensical odds ratios were obtained.
p* < 0.05, *p* < 0.01.

this health issue. Approximately 23% of males and 22% of females reported having any health problem (hypertension, diabetes, cancer, or breathing problems).

Correlates of BMI and Overweight

Socio-Demographic Correlates of Overweight Socio-demographic variables by weight and sex are outlined in Table 3. Married participants (females only) were more likely to be heavier compared to their single counterparts (OR = 3.96, $p < 0.05$). Males with one or more children were more likely to be overweight than those without children (OR = 3.03, $p < 0.05$). The same trend was present for females, although not statistically significant. There was a trend toward those in higher SES groups having less overweight compared to those in lower SES groups; patterns were similar by sex. Specifically, male participants whose fathers graduated from college were less likely to be overweight than those whose fathers did not graduate from college (OR = 0.38, $p < 0.05$). Similarly, females who indicated that their family experienced economic hardship while growing up were more likely to be overweight (OR = 2.19, $p < 0.01$) than those who did not report economic hardship.

Weight-Related and Health Status Correlates of Overweight Weight-related and health status correlates of overweight are summarized in Table 4. Individuals who were attempting weight loss by using various methods and who had a doctor request that they lose weight were more likely to be overweight than those who had not (all $p < 0.05$). Both males and females who were trying to gain weight were significantly less likely to be overweight than those who were not (all $p < 0.01$).

Overall, participants with overweight parents and grandparents were more likely to be overweight themselves. In comparison with respondents who didn't report having an overweight mother, those who did were twice as likely to be overweight themselves. This trend was statistically significant for both males (OR = 2.55, $p < 0.05$) and females (OR = 1.93, $p < 0.05$). A similar trend was observed for reports of having an overweight father, although the relationship was only significant for females (OR = 2.87, $p < 0.05$). A general trend toward being more overweight was observed for both males and females who reported having overweight grandparents. Those with an overweight significant other tended to be more overweight; however, only the estimates for males reached statistical significance.

Those who were overweight as a child were more likely to be currently overweight, and the association between being overweight as a teenager and currently being overweight was even stronger (OR = 18.04 and 19.09 for males and females, respectively, $p < 0.05$). Lower scores on the Perceived Impact of Weight on Social Interaction Scale were associated with overweight, indicating that heavier individuals' social interactions may be more negatively influenced by weight (result only statistically significant for females). Those who reported good, fair, or poor health status were more likely to be overweight compared to those who reported excellent health status.

DISCUSSION

Based on our data, several conclusions can be made regarding this sample of predominately African American young adults. First, the prevalence of being at least overweight was 44.1%, which was similar to the 1995 National College Health Risk Behavior Survey (NCHRBBS) prevalence in African Americans of

48.7%.⁷ Second, married individuals, those with children, and those who belonged to lower SES groups tended to be more overweight. Third, those who had a personal and family history of overweight status and poorer health status were more likely to be overweight.

Overall scores on the Perceived Impact of Weight on Social Interactions Scale (PIWSIS) were high, suggesting that respondents both male and female perceived relatively little negative impact of their weight on social interaction. Females had higher scores on the PIWSIS than males, suggesting that their social interactions may not be as impacted, potentially due to social acceptability of a more voluptuous figure for African American females. However, while males may desire to be larger in terms of being more muscularly fit, extremely obese males often do not appear fit and therefore, may not be as acceptable to females. This may explain why extremely obese males had the lowest scores (highest impact) on the PIWSIS.

Previous data regarding overweight and obesity among this population is limited. In addition to the NCHRBBS study, the Coronary Artery Risk Development in Young Adults (CARDIA) study reported a prevalence of overweight (BMI ≥ 25) among African American men and women aged 18–30 of 37 and 45%, respectively.⁸ In addition, several studies have reported data on young African American women including the National Longitudinal Survey of Youth (NLSY)¹³ and the Black Women's Health Study.¹⁴ The NLSY reported a 25% prevalence of overweight among 1,354 Non-Hispanic Black women aged 16–24.¹³ The Black Women's Health Study, which reported on 9,259 Black women without diagnosed hypertension, indicated that the prevalence of obesity (BMI ≥ 27.3 , using self-reported height and weight) was about 38% among individuals aged 21–39.¹⁴ Compared to this study, our rates may reflect the fact that very few participants had children and childbearing is a major contributor to female weight gain during young adulthood.¹⁵

Our sample, compared to other samples of the general population, had high socioeconomic status (SES), as indicated by the fact that all of our participants were graduating from college, and many reported favorable family circumstances and minimal economic hardship while growing up. It has been shown that more overweight and obesity is associated with lower SES in general, primarily in women; the NLSY and the Black Women's Health Study have also shown this association among African Americans. In fact, the Black Women's Health Study reported that the prevalence of obesity (BMI ≥ 27.3) decreased from 41.8 to 38.6% and 33.5% among individuals aged 21–39 who had completed ≤ 12 , 13–15, and more than 16 years of education, respectively.¹⁴

In the current study, parental factors and factors while growing up were important correlates of overweight. The SES of the parents as well as parental weight were both associated with the participant being overweight. Furthermore, being overweight as a child and/or as a teenager was substantially associated with current overweight. These results suggest that intervening early (in childhood) and intervening with the family may affect the weight and weight management activities that students engage in when they are on their own in college.

The 1995 National College Health Risk Behavior Survey reported some data regarding weight management practices among African American college students.⁷ Although the data were not stratified by sex, 43% reported that they were trying to lose weight, and 49 and 28% reported that they were using exercise and diet, respectively, as weight control measures. These were very similar to the practices reported among our sample, as 39% reported they were trying to lose weight and

43% were using physical activity to lose weight. A higher percentage of individuals in our sample reported that they were using diet to lose weight as compared to the national college sample (40 vs. 28%).

Our study has several strengths. We have provided data on young African American adults, a relatively understudied group with respect to obesity and weight control. Furthermore, we collected extensive data on socio-economic, familial and weight-related factors.

Nonetheless, several limitations should be noted. First, since the study was cross-sectional, we cannot make inferences about causality. For example, considering our finding that higher BMI was associated with being married, we cannot conclude that being more overweight is a result of being married. However, we will be able to explore these issues when we complete the cohort component of the study. Second, this was a convenience sample, so our generalizability to the entire graduating class or graduates of Historically Black Institutions in general may be limited. Our external validity seems reasonable considering that our sample was similar to the entire graduating class of 2003 with regards to age, sex, and race. Third, all of our measures were self-reported, including height and weight. Previous studies have generally reported a 90% correlation between self-reported and actual weights and that 20% of adults underestimate their actual weights by 2 kg or more.¹⁶ A study that used national data (NHANES II) reported that males overestimate actual weight by 1.5 kg, and females underestimate weight by 1.5 kg.¹⁶ Therefore, our estimates of weight are likely to be underestimated.

Overweight is a significant problem in this population and should be addressed among men and women. Furthermore, alarming disparities exist between African Americans and whites, even at younger ages. Kumanyika and colleagues¹⁷⁻²² have broadly studied diet and weight control among African Americans and have discussed factors such as cultural and behavioral aspects of eating behavior, body image and acceptance of overweight, cultural appropriateness of weight loss interventions, and social/environmental effects on weight control. This author, in a recent commentary, also exposed the lack of literature available for Minority populations and posed a challenge to the Minority health and obesity research communities to take action.²³ With this in mind, our data should be useful in identifying correlates of overweight status and developing appropriate weight loss interventions in this population. Specifically, focusing on the family and home environment might be a place to start since many college students are transitioning to independence for the first time and would be shaped by these past experiences. Furthermore, the accessibility of college populations is favorable for health education and health promotion activities. Future research from our group will explore concepts such as body image, diet, and weight management activities and develop a prospective follow-up of students.

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