Published in final edited form as:

Clin Pediatr (Phila). 2011 January ; 50(1): 14–16. doi:10.1177/0009922810374976.

Racial Differences in Obese Youth's Perception of Health Care and Weight Loss

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Abstract

Within the United States, minority youth are at greater risk of becoming overweight/obese and are less likely to receive preventive health care. The authors examined several domains of preventive health care perceptions among persistently overweight/obese white and black adolescents. A total of 55 youth (29 white, 26 black) who had previously sought weight management treatment participated in a follow-up study 4 years later ($M_{\text{years}} = 4.2 \pm 0.8$). All participants remained overweight (5% at the 85th–94th BMI percentiles) or obese (95% 95th BMI percentile), with no significant difference in weight by race. Relative to whites, blacks perceived greater physician concern about and counseling regarding weight ($P_{\text{concern}} < .01$; $P_{\text{counsel}} < .01$), eating habits ($P_{\text{concern}} < .001$; $P_{\text{counsel}} < .01$), and physical activity ($P_{\text{concern}} < .001$; $P_{\text{counsel}} < .05$). Although whites reported knowing more weight-related comorbidities than blacks, there were no group differences in number of weight loss methods attempted ($M_{\text{methods}} = 7.5 \pm 2.7$). Overall, there were no group differences in perceptions of risk. Physicians may be appropriately focusing efforts on educating black youth, but knowledge and behavior gaps persist.

Keywords

adolescent; overweight; disparities; counseling

There is an increasing epidemic of obesity among adolescents worldwide.¹ Adolescent obesity is likely to persist into adulthood² and may be accompanied by increased morbidity.³ In the United States, the prevalence of obesity among adolescents is at an all-time high, with 17.6% having a BMI 95th percentile for age and height.⁴ Significant racial differences exist, with nearly 21% of black and Hispanic youth identified as obese compared with 12% of non-Hispanic white youth.⁵ These discrepancies are mirrored by racial disparities in health care. Less than half of overweight/obese adolescents receive weight-related

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Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the authorship and/or publication of this article. There are no identifiable conflicts of interest for any of the listed authors.

counseling, with minority youth even less likely to receive these services, per health care provider report.⁶ Given that obese adults and adolescents who receive weight-related counseling are significantly more likely to engage in weight loss attempts,^{7–10} minority youth may participate less often in weight loss behaviors as well as have less knowledge of, and lower perceived health risk for, weight-related comorbidities.

This study examined racial differences in overweight/obese adolescents' perception of several health care domains. We hypothesized that white overweight/obese adolescents would report (1) more physician counseling and greater perceptions of physician concern regarding their weight, (2) more knowledge of and higher perceived health risk for weight-related comorbidities, and (3) greater frequency of engagement in weight loss behaviors than black overweight/obese adolescents.

A total of 29 white (52% female) and 26 black (46% female) adolescents who previously participated in a study of the psychosocial adjustment of treatment-seeking obese youth¹¹ agreed to participate in this follow-up study. Participants were initially identified from a hospital-based pediatric weight management clinic,¹² which required a BMI 95th percentile at treatment initiation. Initial inclusion criteria were the following: (1) 8 to 16 years old, (2) no homeschooling or full-time special education, and (3) residence within 60 miles of the hospital. All participants 18 years old were approached for follow-up approximately 4 years later ($M_{\text{years}} = 4.2 \pm 0.8$). In all, 84% of age-eligible youth participated. Nonparticipants had significantly higher BMIs than participants (38.9 ± 8.3 vs 34.2 ± 5.8 ; $t(82) = 2.98$; $P < .01$). Whites ($M_{\text{age}} = 16.5 \pm 1.5$ years) were significantly older than blacks ($M_{\text{age}} = 15.7 \pm 1.4$ years; $t(54) = 2.20$; $P < .05$). All participants persisted in overweight/obesity, with no significant difference in BMI between whites and blacks ($M_{\text{BMI}} = 38.1 \pm 8.8$ and $M_{\text{BMI}} = 41.2 \pm 9.6$, respectively).

Height/weight was obtained using standardized protocols. Adolescents completed the Adolescent Health Beliefs and Weight Treatment History Questionnaire (created for this study), which assessed self-perceptions of weight history, weight loss attempts, physician weight counseling, and beliefs about their risks for weight-related comorbidities.

Analyses of variance (ANOVA) revealed that, relative to whites, blacks perceived greater physician concern about their weight [$F(1, 54) = 10.75$; $P < .01$], eating habits [$F(1, 54) = 12.51$; $P < .001$], and physical activity [$F(1, 54) = 13.54$; $P < .001$] and greater frequency of physician counseling on weight [$F(1, 54) = 10.19$; $P < .01$], eating habits [$F(1, 54) = 9.75$; $P < .01$], and physical activity [$F(1, 54) = 5.59$; $P < .05$]. Blacks were more receptive to discussing their weight [$F(1, 54) = 5.3$; $P < .05$], eating habits [$F(1, 54) = 6.1$; $P < .05$], and physical activity [$F(1, 54) = 5.0$; $P < .05$] with physicians than whites. χ^2 Analyses revealed no difference between groups in overall satisfaction with physicians' discussion of these behaviors or in total perceived risk of developing 14 weight-related comorbidities, perceived negativity of comorbidities, and self-efficacy for disease prevention. However, whites reported knowing more specific comorbidities than blacks (see Table 1). Whites also reported greater perceived negativity for several comorbidities, including sleep apnea [100% vs 73%; $\chi^2(1) = 6.67$; $P < .05$] and perceived greater personal risk for heart disease [45% vs 19%; $\chi^2(1) = 3.7$; $P < .05$]. There were no differences in mean number of weight loss

methods attempted by blacks ($M_{\text{methods}} = 6.9 \pm 2.6$) and whites ($M_{\text{methods}} = 8.0 \pm 2.8$). Finally, perceived physician concern or counseling was not significantly associated with knowledge of comorbidities or weight loss method attempts for either group of adolescents.

Although overweight/obese black adolescents perceived greater physician concern and frequency of counseling regarding weight-related behaviors than white adolescents, they were less likely to report knowledge of weight-related comorbidities and did not differ from white adolescents in perceptions of total risk for or negativity of comorbidities. Physicians may be appropriately focusing efforts on educating black adolescents, but knowledge and behavior gaps persist. Moreover, the lack of significant associations between perceived physician concern/counseling and knowledge about comorbidities or weight loss method attempts for all participants suggests that standard practice may not be effective among overweight/obese youth who have unsuccessfully attempted weight loss. Future research should explore specific weight loss motivators, barriers, and supports among these at-risk youth, given their likelihood of remaining obese into adulthood.²

Acknowledgments

This manuscript was written while the first author was supported by a NIH-funded T32 research fellowship (Research Training in Child Behavior and Nutrition, Grant # 5T32DK 063929-07).

Funding

The author(s) received no financial support for the research and/or authorship of this article.

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Table 1
Percentage of Adolescents Reporting Knowledge and Perceived Risk of Comorbidities by Race

	Knowledge			Perceived Risk		
	White	Black	χ^2	White	Black	χ^2
Asthma	100%	96%	1.14	31%	31%	—
Cancer	100%	100%	—	38%	35%	0.07
Diabetes	100%	92%	2.32	62%	72%	0.60
Gallbladder disease	62%	31%	5.39 ^a	7%	9%	0.06
Gout	24%	12%	1.46	4%	0%	0.80
Heart disease	97%	85%	2.37	45%	20%	3.72 ^a
High blood pressure	97%	96%	0.00	55%	65%	0.60
High cholesterol	93%	65%	6.58 ^b	41%	48%	0.21
Obesity	100%	96%	1.14	76%	65%	0.73
Osteoarthritis	93%	62%	8.01 ^b	28%	9%	2.95
Premature death	93%	58%	9.52 ^b	14%	9%	0.33
Psychological stigma	45%	15%	5.57 ^a	7%	0%	1.58
Sleep apnea	79%	62%	2.10	31%	29%	0.02
Stroke	97%	88%	1.33	17%	21%	0.11

^a $P < .05$.

^b $P < .01$.