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The Relationship between Adolescent Behavior and Adult Success

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Abstract

Introduction: The traits and characteristics learned and developed in childhood have lasting effects throughout life. However, it is unclear how these traits and characteristics impact individuals as adults. This study examined the impact of adolescent body image on three dimensions of adult success-romantic success, earnings success and health success.

Methods: Body image was measured using an instrument created from survey questions concerning body size and desired weight change in adolescence. Using two waves of data from ADD Health, a structural equation model was used to assess the relationship between adolescent body image and adult success. Estimation accounts for the endogeneity of body image and success in the system, specifies variables related to the heteroscedasticity of the residuals, and controls for the way these variables are used to model the error. Genders and success parameters are estimated separately.

Results: Body image varied significantly by race/ethnicity with blacks having better and Hispanics having worse body image than other groups. Health and BMI were negatively related to body image for both genders. Not surprisingly, adolescent body image was highly correlated with adult success. Adolescents with higher body image reported having better physical health, more stable relationships and higher earnings than those with low body image. While body image was significantly related to success for both genders, BMI appeared to be more deterministic for females than males. Physical health and household size played only a small role.

Discussion and Conclusion: Results were consistent with expectations. Given that health and self-esteem were important drivers for adult success, it is important to establish mental and emotional well-being among all races and genders early in life.

Keywords: Childhood obesity; Adult success; Adult health; Body image; Adolescent characteristics; School-based study; Health-related behaviors

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Introduction

Over time, children increase in overall body size, fully develop their cerebral cortex and learn responses to external circumstances. While the changes they undergo between childhood and adulthood can be as diverse as the circumstance where they occur, psychological literature suggests that the personality traits displayed early in life, are directly observable in adulthood, nearly four decades later [1]. Children rated unrestrained and talkative showed dominant and socially adept behavior as adults while "self-minimizers" showed to be insecure and humble adults. Furthermore, early life conscientiousness has been shown to influence core aspects of adult well-being including health, friendships, and mastery [2].

Given the tendency of childhood personality traits to predict adult characteristics, this study investigates the precipitative nature of body image. More specifically, it examines the role that adolescent body image plays in adult success. Success is

measured as achievement in three areas-romance, earnings and health. Given the tendency of childhood overweight and obesity to persist throughout life, it is logical to assume that the associated body image would carry over adulthood, as well. Using two waves of data from the National Longitudinal Study of Adolescent to Adult Health (Add Health), analysis employees a structural equation model to determine the extent to which body image in Wave I (1995) relates to physical, emotional and intellectual success in Wave IV [3].

The ability of adolescent personality and traits to predict adult outcomes has proven quite strong [3,4]. Mortality, marital outcomes, physical activity [5], educational attainment, career success, the quality of peer and family relationships [2], criminal activity, substance use [6] and antisocial behaviors have been linked to childhood personality traits [7]. These adolescent traits are often directly observable in adulthood. For example, conscientious adolescents emerge as industrious, orderly and well-controlled adults. Those displaying less conscientiousness are unlikely to achieve scholastically or romantically and are more likely to endanger themselves and others [8].

In addition to personality traits, many other factors from adolescence have been linked to adult outcomes. Perceiving oneself as overweight early in life is linked to poor adult health outcome [9]. Self-identification as overweight may itself contribute to unhealthy profiles of physiological functioning and impaired health over time [9]. However, accurate perception of one's weight can be a considerable factor in predicting long-run weight loss success and weight management efforts. Appreciation, acceptance and satisfaction with one's body can decreases the probability of dieting, alcohol and cigarette use among women [10] and strongly predicts later life marital and sexual satisfaction [11]. Conversely, extreme body distortion can lead to depression and isolation later in life [12]. These feelings continue have been shown to endure into adulthood and often worsen over time [13].

In addition to body perception, adolescent body weight itself also has implications for adult romantic success (Halpern et al.), high school graduation, college attendance and future income [14]. Early issues to correct weight-related issues, such as dieting, depression, and body image distortion, strongly predicts behaviors such as dieting, binge eating and eating disorder diagnosis in adulthood particularly among women [15].

Exogenous circumstances also have a large impact on various types of success. Family structure and socioeconomic status are linked to romantic and scholastic success in adulthood [16,17]. Attachment, friendship quality and parental relationships in youth have been shown to uniquely predict romantic relationship outcomes in both strength and quality [18,19]. Neighbourhood environment and psychological factors predict adult risky behavior or tendencies taking risks [20].

While many of these proven associations appear strong, they could also be the result of uncontrolled exogenous or unobserved factors. Furthermore, if studies employed cross sectional rather than longitudinal data they could lack the statistical sophistication to prove that personality is in fact predictive of adult outcomes. To properly assess the linkage between adolescence traits and adult outcomes, longitudinal data and appropriate demographic and statistical controls are necessary [6]. Using a nationally representative, longitudinal data set, this study tests the relationship between body image and adult success. Success is measured on three fronts-romantic, health and earnings. This review proceeds in the following way. First, the data, measures of success and statistical modelling techniques are discussed; followed by a review of the results, discussion of the evidence and presentation of the statistical reliability. Finally, the implications, recommendations and areas for future studies on this topic are discussed.

Methods

Analysis utilizes data Add Health-a school-based study of the health-related behaviors of adolescents in Grades 7 to 12. Participants were selected from a sample of 80 eligible high schools and stratified to ensure the sample was representative of U.S. schools. Students completed an in-school questionnaire and in-home sample questionnaire. A total core sample of 12,105 adolescents was interviewed. Most interviews were conducted in 1995 in the participants' homes. Questions were either read by interviewers or heard through headphones of a pre-recorded dialogue and entered directly into a laptop by respondents [3]. A parent, preferably the resident mother, of each adolescent respondent interviewed in Wave I was asked to complete a questionnaire.

Wave I interviews were conducted when respondents were in grades 7 to 12, between 12 and 19 years of age, in 1995 and it were followed up in a second interview approximately one year later in 1996 and in a third interview in 2001 to 2002. Waves 4 and 5 occur in 2008 and 2016 respectively [3]. Waves I and IV were used to assess the impact that adolescent body image had on adult success in this analysis. Information on race, ethnicity, household, general physical health and household income were used as controls in the baseline and follow-up year.

Since Add Health does not specifically capture body image, a discrete measure of body image satisfaction is created using two individual survey items-weight assessment and weight action. First, respondents assess their own weight as very underweight, slightly underweight, normal weight, slightly overweight or very overweight. Second, respondents categorize how they would like to change their weight by losing, gaining or staying the same weight. The relative positivity of the response is given a numeric value one through three based on the body satisfaction level. The numeric response values are listed in Table 1. The numeric value from weight perception is then added to the numeric value for weight action to obtain the numeric body image score. Body image can take on any value two through six-two representing the lowest level of body satisfaction and six the highest (Table 1).

Measuring adult success is a more complex question. First, success can exist in a variety of different areas. Second, success is a subjective term meaning different things to different individuals. Finally, not all types of successes are equal. Therefore, this study utilizes three primary measures for adult success designed to capture three different types of success-personal, earnings and health. Each success measure is taken from a survey question in Add Health Wave IV. Romantic success is considered having a long term, stable relationship. Respondents list the number romantic or sexual partners have they have lived with for one month or more. Values range from zero to 20. Earnings success is measured

Table 1: Measure of body image satisfaction between weight perceptions and weight action.

Weight Perception		Weight Action	
Response	Body Image Score	Response	Body Image Score
Very Underweight	1	Lose Weight	1
Slightly Underweight	2	Gain Weight	1
Right Weight	3	Stay the Same Weight	3
Slight Overweight	2	Not Trying to do Anything	2
Very Overweight	1		

by total income before taxes in the last calendar year. It includes wages or salaries, tips, bonuses, overtime pay, and income from self-employment. Valid wage responses are greater than or equal to zero. Finally, health success is based on individual health assessment which is categorized as excellent, very good, good, fair and poor.

To estimate the impact of adolescent body image on adult success, this study employs a structural equation model that takes the form of Equation (Equations 1 and 2).

(1) $$BodyImage_{t1} = \beta_0 + \beta_1 BMI_{t1} + \beta_2 CohortAge_{t1} + \beta_3 GeneralHealth_{t1} + \beta_4 Black_t + \beta_5 Hispanic_t + \beta_5 HouseholdSize_{t1} + \beta_6 ParentalIncome_{t1} + \varepsilon_t$$

(2) $$AdultSuccess_{t4} = \beta_0 + \beta_1 Black_t + \beta_2 Hispanic_t + \beta_3 GeneralHealth_{t4} + \beta_4 BMI_{t4} + \beta_5 HighestGradeCompletd_{t4} + \beta_6 HouseholdSize_{t4} + \beta_7 BodyImage_{t1} + \mu_t + \rho_t$$

The model is fully identified with two equations and two endogenous variables-body image and adult success. In the first equation, body image is expressed as a function of exogenous BMI, parental income, race, ethnicity, household size, age and health status in Wave I. In the second equation, adult success is estimated as a function of body image and numerous controls. Estimating the impact of adolescent body image expressed by exogenous variables on adult success outcomes is analogous to a simple two-stage least squares model. But instead of using a two-stage least squares estimator, the model can be efficiently estimated using a structural model together with the reduced form models for the endogenous explanatory variables. When the reduced form model for the body image is written along with the structural model for adult success, SAS PROC QLIM maximizes the likelihood function obtained from the joint density of the response variable and the endogenous explanatory variables. Structural errors, assumed to be independent, zero mean and identically distributed, represent the aggregated omitted causes and measurement error of the endogenous variables.

Given that the success outcomes can only assume a limited number of discrete values, the QLIM procedure, allows the user to specify the dependent variable as truncated or censored and indicates the limits specifically in the system. The HETERO statement specifies variables that are related to the heteroscedasticity of the residuals and the way these variables are used to model the error variance. In the PROC QLIM model with HETERO specified, the assumption that error variance is constant across observations is relaxed. Under these specifications it is possible to estimate a structural equation model accounting for the limited dependent variable, heteroskedasticity and endogeneity to obtain consistent estimates. For this analysis, all regressions are run in the SAS system separately for each measure of success by gender. Given the nature of the Add Health waves, patterns of oversampling and school-based clustering, SAS survey commands were used when available. All multivariate analyses are weighted to represent the United States population of youths in grades 7 to 12 in 1995 and adjust for differences in sample selection probabilities and response rates [21]. In addition to longitudinal sampling weights, estimation includes controls for cluster strata or class. All three measures are estimated as structural equation systems with two endogenous variables-body images and the success parameter.

Results

Regression results are listed in Table 2 through V with descriptive statistics provided in Table 3. The first structural equation in the system is uniform in all three success models. It frames Wave I body image as a function of BMI, race, ethnicity, age, household size, health status and parental income in Wave I [22]. System results show that as general health declines, body image worsen. Similarly, as BMI increases, body image falls. Hispanics have a lower body image and blacks a higher body image than majority groups. As parental income increases, body perception increases as well. All signs and significance levels are consistent with expectations and hold among all specification (Tables 2 and 3).

The second structural equation shows the degree to which adolescent body image impacts adult earnings. Earnings are a function of race, ethnicity, household size, general health and BMI in Wave IV as well as Wave I body image [23]. Blacks and Hispanics have lower earnings than other groups as do those in larger households. The relationship between health and wages suggests that those in better health have higher earnings. Interestingly, the impact of BMI on wages differs for males and females. For men, BMI is directly related to wage, but only marginally significant. For women, BMI is negatively related to wages and highly significant. These results suggest that BMI is a much larger determinant of female wages than male wages. Females at higher BMI levels have lower wages, while males have little impact of high or low weight. However, body image in Wave I is positively related to earnings in Wave IV for both genders-those with better self-esteem in childhood, earn more as adults.

Results for the estimation of health success are listed in Table 4. The first portion of the structural system, body image estimation, is consistent with the previous specification. The second portion frames general health in Wave IV as a function of body image in Wave I and controls for BMI, educational attainment, race, ethnicity and household size in Wave IV. Recall that general health is indicating one through five-one is excellent health and five is poor. General health and education are inversely related suggesting that those with higher levels of education consider themselves to be in better health than those at low levels of education. The association between BMI and health indicates that as BMI increases, health worsens-those with high BMI indicate lower health status [24]. Finally, body image in Wave I is negatively related to health in Wave IV-higher body image relates to better health [24] (Table 4).

Table 2: Add Health Wave I and IV covariate characteristics.

Add Health Wave I and IV Covariate Characteristics				
	Male		Female	
	N	%	N	%
Body Image Wave I				
Negative	144	2.36	103	1.714
Ambivalent	2,452	43.854	3430	50.664
Positive	3,005	53.786	3140	47.623
Weight Perception Wave I				
Very Underweight	144	2.36	103	1.714
Slightly Underweight	1,129	19.989	659	9.393
Normal Weight	3,005	53.786	3140	47.623
Slightly Overweight	1,201	21.496	2368	35.448
Very Overweight	122	2.369	403	5.823
Birth Year				
1974	7	0.211	5	0.228
1975	47	1.06	24	0.372
1976	375	7.25	336	5.398
1977	1,022	17.138	1157	16.657
1978	1,132	16.109	1296	16.196
1979	1,081	16.382	1255	17.339
1980	853	17.003	1108	17.002
1981	676	15.307	875	15.36
1982	407	9.433	614	11.313
1983	2	0.014	11	0.113
1984	4	0.093	1	0.021
General Health Wave I				
Excellent	1,792	31.369	1639	23.81
Very Good	2,241	39.007	2601	40.11
Good	1,249	23.487	1865	27.902
Fair	302	5.715	537	7.528
Poor	20	0.421	37	0.65
Race/Ethnicity				
Hispanic	919	12.343	994	11.534
Black	1,096	16.043	1583	16.766
Household Size Wave I				
1	30	0.866	10	0.223
2	202	5.579	205	4.333
3	707	18.11	869	17.95
4	1,381	35.051	1718	34.714
5	1,031	23.501	1248	23.426
6	744	16.893	1096	19.354
General Health Wave IV				

Excellent	1,161	20.864	1214	17.741
Very Good	2,170	37.723	2513	38.335
Good	1,782	32.042	2271	34.059
Fair	442	8.361	598	8.34
Poor	51	1.011	86	1.525
Highest Education Level Completed to Date Wave IV				
8th grade or less	21	0.469	21	0.345
Some high school	475	9.445	379	6.662
High school graduate	1,052	20.891	882	14.094
Some vocational/technical	218	4.013	204	2.93
Completed vocational/technical	338	5.666	447	6.594
Some college	1,860	31.795	2291	34.583
Completed college	1,087	18.465	1421	20.54
Some graduate school	178	3.349	299	4.465
Completed master's	212	3.488	437	5.723
Some graduate beyond masters	39	0.64	87	1.218
Doctoral degree	31	0.436	66	0.88
Some post baccalaureate professional	32	0.477	57	0.787
Completed post baccalaureate professional	61	0.865	89	1.182
Household Size Wave IV				
1	1,518	31.555	1689	29.265
2	1,269	27.185	1525	25.122
3	1,095	23.562	1429	24.502
4	538	10.388	761	11.848
5	232	4.809	322	4.792
6	100	1.346	154	2.499
7	40	0.786	74	1.02
8	17	0.251	23	0.393
9	4	0.047	20	0.218
10	3	0.005	11	0.155
11	4	0.066	6	0.068
13	1	0.001	3	0.087
14			1	0.001
15			2	0.018
16			1	0.013
Total Romantic or Sexual Partners Ever Lived with >= 1 Month				
0	2,850	49.094	3477	50.797
1	1,572	28.044	1866	28.391
2	727	14.056	897	13.968
3	263	5.184	309	5.016
4	98	2.054	85	1.223
5	33	0.67	22	0.405
6	13	0.27	7	0.105
7	8	0.167	2	0.065
8	4	0.077	2	0.031
10	11	0.31		

12	1	0.017				
15	1	0.04				
20	2	0.019				
Variable Means						
	Min	Max	Mean	Min	Max	Mean
Body Image Wave I	1	5	3.02	1	5	3.34
General Health Wave I	1	5	2.05	1	5	2.21
BMI Wave I	11.21	56.38	22.7	11.25	49.77	22.36
Hispanic	0	1	0.12	0	1	0.12
Black	0	1	0.16	0	1	0.17
Household Size Wave I	1	6	4.25	1	6	4.35
Total Household Income Wave I	0	999	45.15	0	999	46.83
Body Image Wave I	1	3	2.51	1	3	2.46
General Health Wave IV	1	5	2.31	1	5	2.38
Highest Education Level Completed Wave IV	1	13	5.33	1	13	5.86
BMI Wave IV	2.74	67.41	28.25	0	66.45	28.4
Household Size Wave Iv	1	13	2.39	1	16	2.55
# Romantic/Sexual Partners Live with >= 1 month	0	20	0.91	0	10	0.8
Household Income Wave IV	1	12	8.19	1	12	7.88

Table 3: Structural equation model: Body image and earnings success.

Structural Equation Model: Body Image and Physical Health Success				
Number of Observations	2718		3335	
Log Likelihood	-8084		-9740	
AIC	16212		19524	
Schwarz Criterion	16342		19658	
Parameter	**Male**		**Female**	
Parameter Estimates	Estimate	Std Err	Estimate	Std Err
$Body\ Image_{t1}$*Intercept	1.604309	1.269509	8.171327***	1.163265
$Body\ Image_{t1}$*$Cohort\ Age_{t}$	0.063315***	0.015702	-0.007174	0.014436
$Body\ Image_{t1}$*$General\ Health_{t1}$	-0.327061***	0.032605	-0.232616***	0.033301
$Body\ Image_{t1}$*BMI_{t1}	-0.061307***	0.00552	-0.120134	0.006143
$Body\ Image_{t1}$*$Hispanic_{t}$	-0.346342***	0.088891	-0.136001*	0.078782
$Body\ Image_{t1}$*$Black_{t}$	0.309499***	0.101517	0.138327*	0.075446
$Body\ Image_{t1}$*$Household\ Size_{t1}$	0.019636	0.023356	0.009327	0.022223
$Body\ Image_{t1}$*$Parental\ Income_{t1}$	0.000051343	0.000698	-0.000293	0.000557
ε_{t1}	0.469907***	0.109017	0.872144***	0.048808
$General\ Health_{t4}$*Intercept	3.543622***	0.318166	2.352888***	0.274279
$General\ Health_{t4}$*$Highest\ Grade\ Completed_{t4}$	-0.08027***	0.010035	-0.080725***	0.009019
$General\ Health_{t4}$*BMI_{t4}	0.034284***	0.003579	0.034613***	0.00309
$General\ Health_{t4}$*$BodyImage_{t1}$	-0.440794	0.059547	-0.165095***	0.047492
$General\ Health_{t4}$*$Hispanic_{t}$	-0.057393	0.075894	0.174972***	0.06057
$General\ Health_{t4}$*$Black_{t}$	0.009156	0.064377	0.102351**	0.049708
$General\ Health_{t4}$*$Household\ Size_{t4}$	0.022718	0.015936	0.035458***	0.013104
ε_{t4}	1.123574***	0.03398	1.008295***	0.015618
ρ_{t4}	0.433777***	0.055421	0.115136**	0.057461
Note: ***=99% significant **=95% significant *=90% significance				

Romantic success is measured using the number of cohabitating romantic or sexual partners lasting longer than one month. Those with a smaller number of cohabitating partners are viewed as having more stable, longer lasting relationships and therefore more successful. The dependent variable in the structural equation for romantic success represents number of cohabitating and results reveal a negative relationship between education and number of partners-those with more education have had a fewer number of long-time, cohabitating partners. Blacks have a higher number of romantic partners than other groups while those in

Table 4: Structural equation model: Body image and physical health success.

Structural Equation Model: Body Image and Physical Health Success				
Number of Observations	2718		3335	
Log Likelihood	-8084		-9740	
AIC	16212		19524	
Schwarz Criterion	16342		19658	
Parameter	**Male**		**Female**	
Parameter Estimates	Estimate	Std Err	Estimate	Std Err
Body Image$_{t1}$*Intercept	1.604309	1.269509	8.171327***	1.163265
Body Image$_{t1}$*Cohort Age$_{t}$	0.063315***	0.015702	-0.007174	0.014436
Body Image$_{t1}$*General Health$_{t1}$	-0.327061***	0.032605	-0.232616***	0.033301
Body Image$_{t1}$*BMI$_{t1}$	-0.061307***	0.00552	-0.120134	0.006143
Body Image$_{t1}$*Hispanic$_{t}$	-0.346342***	0.088891	-0.136001*	0.078782
Body Image$_{t1}$*Black$_{t}$	0.309499***	0.101517	0.138327*	0.075446
Body Image$_{t1}$*Household Size$_{t1}$	0.019636	0.023356	0.009327	0.022223
Body Image$_{t1}$*Parental Income$_{t1}$	0.000051343	0.000698	-0.000293	0.000557
ε_{t1}	0.469907***	0.109017	0.872144***	0.048808
General Health$_{t4}$*Intercept	3.543622***	0.318166	2.352888***	0.274279
General Health$_{t4}$*Highest Grade Completed$_{t4}$	-0.08027***	0.010035	-0.080725***	0.009019
General Health$_{t4}$*BMI$_{t4}$	0.034284***	0.003579	0.034613***	0.00309
General Health$_{t4}$*BodyImage$_{t1}$	-0.440794	0.059547	-0.165095***	0.047492
General Health$_{t4}$*Hispanic$_{t}$	-0.057393	0.075894	0.174972***	0.06057
General Health$_{t4}$*Black$_{t}$	0.009156	0.064377	0.102351**	0.049708
General Health$_{t4}$*Household Size$_{t4}$	0.022718	0.015936	0.035458***	0.013104
ε_{t4}	1.123574***	0.03398	1.008295***	0.015618
ρ_{t4}	0.433777***	0.055421	0.115136**	0.057461
Note: ***=99% significant **=95% significant *=90% significance				

Table 5: Structural equation model: Body image and romantic success.

Structural Equation Model: Body Image and Romantic Success				
Number of Observations	2710		3333	
Log Likelihood	-8126		-9583	
AIC	16298		19211	
Schwarz Criterion	16434		19352	
Parameter Estimates	**Male**		**Female**	
Parameter Estimates	Estimate	Std Err	Estimate	Std Err
Body Image $_{t1}$*Intercept	4.302645***	1.383926	8.424876***	1.171978
Body Image $_{t1}$*Cohort Age$_{t}$	0.029607*	0.017242	-0.010779	0.014582
Body Image $_{t1}$*General Health$_{t1}$	-0.245198***	0.034073	-0.202079***	0.028901
Body Image $_{t1}$*BMI$_{t1}$	-0.073303***	0.005168	-0.123928***	0.005778
Body Image $_{t1}$*Hispanic$_{t}$	-0.384121***	0.090221	-0.138587*	0.078839
Body Image $_{t1}$*Black$_{t}$	0.278167**	0.099738	0.143013*	0.075281
Body Image $_{t1}$*Household Size$_{t1}$	0.047154*	0.024932	0.020269	0.022201
Body Image $_{t1}$*Parental Income$_{t1}$	-0.000339	0.000748	-0.000236	0.000559
ε_{t1}	0.443475***	0.103133	0.872608***	0.047811
Romantic Ptnr$_{t4}$*Intercept	4.378347***	0.711886	2.16091***	0.461798
Romantic Ptnr$_{t4}$*Highest Grade Completed$_{t4}$	-0.251089***	0.022331	-0.161737***	0.017025
Romantic Ptnr$_{t4}$*BMI$_{t4}$	-0.041982***	0.008329	-0.029652***	0.005611
Romantic Ptnr$_{t4}$*BodyImage$_{t1}$	-0.39169**	0.12422	-0.195175**	0.076793
Romantic Ptnr$_{t4}$*Hispanic$_{t}$	-0.150476	0.157962	-0.375786**	0.114717
Romantic Ptnr$_{t4}$*Black$_{t}$	0.615843***	0.127379	0.270785**	0.090097
Earnings$_{t4}$*Health$_{t4}$	0.104334**	0.051559	0.282301***	0.03885
Romantic Ptnr$_{t4}$*Household Size$_{t4}$	-0.172111***	0.035347	-0.03723	0.023962

ε_{t4}	2.093921***	0.056171	1.710809***	0.03496
ρ_{t4}	0.240618***	0.070076	0.12948**	0.053472
***=99% significant **=95% significant *=90% significance				

large household have a fewer partners-an indication of enduring relationships which are likely to involve marriage and children. Body image is significantly and negatively related to the number of partners, therefore those with higher body image to have fewer partners-an indicator or greater relationship stability or romantic success. The relationship between BMI and body image remains negative in all three specifications (Table 5)

Discussion

This study assessed the role that adolescent body image plays in adult success, by using three parameters of success-physical, romantic and workforce-enables analysis in various contexts of adult life.

Not surprisingly, body image is negatively related to BMI and health status as BMI increase and health worsens, so does body image-but positively related to parental income-youth from high income households have better self-image. Hispanics have lower and blacks higher body image than other groups.

Those with better body image, higher earnings and good physical health have more success in adulthood irrespective of the success parameter. Higher BMI and larger household sizes achieve lower levels of comparative success. Therefore, adolescents with better body image have more stable adult relationships, better adult health and higher earnings than those with low self-image. Not only are these results consistent with expectations, but they also highlight the importance of established patterns of positivity in eventual success.

Conclusion

This study makes three important contributions to the understanding of adolescent body image. Results show that adolescent body image is highly correlated with adult earnings, health and romantic success. The higher body image and the higher the level of adult romantic, earnings and health success. First, it uses a large, nationally representative, and multi-wave sample to confirm findings on adolescents' success as adults. Previous studies were often limited by small, non-representative, cross-sectional, and age- or time-limited samples. Second, results highlight differences in adult success on all by race, which may help policy makers to better understand the divergent adult experiences of blacks and whites.

Finally, I show that healthy, accurate adolescent body image and self-esteem are important drivers for healthy, well-adjusted, high-earning adults. While theories suggest this should be the case, little empirical evidence links the mental and emotional state of adolescents directly to adult success in the areas of relationships, physical well-being and work farce achievement. With the recent cultural shift prolonging the transition to adulthood, adolescents now have more time to develop sound body images and confidence in their individual identities. More research emphasizing the importance of how early mental and emotional well-being can help inform policy and program efforts to strengthen the likelihood of adult success among all races and genders is needed.

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Ethical Approval Disclosure

This manuscript does not contain any studies with human participants or animals performed by the author. The study was performed under supervisions of the East Carolina University Institutional Review Board.

Conflicts of Interest Disclosure

The author certifies that he/she has no affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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