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Article

Parental Education Better Helps White than Black Families Escape Poverty: National Survey of Children's Health

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Abstract: According to the Blacks' Diminished Return theory, the health effects of high socioeconomic status (SES) are systemically smaller for Black compared to White families. One hypothesis is that due to the existing structural racism that encompasses residential segregation, low quality of education, low paying jobs, discrimination in the labor market, and extra costs of upward social mobility for minorities, Black families face more challenges for leveraging their education to escape poverty. Aims: Using a nationally representative sample of American families with children, this study investigated racial variation in the effects of highest education of parents on family's ability to scale poverty, defined as the household's income-to-needs ratio. Methods: This cross-sectional study used data from the National Survey of Children's Health (NSCH) 2003–2004—a nationally representative telephone survey that included 86,537 parents of children 0–17 years old. The sample was composed of White ($n = 76,403$, 88.29%) and Black ($n = 10,134$, 11.71%) families. The independent variable was highest education of the parents. The dependent variable was household poverty status (income-to-needs ratio). Race was the focal moderator. Linear regression was used in the pooled sample, as well as by race. Results: In the pooled sample, higher education of parents in the household was associated with lower risk of poverty. Race, however, interacted with parental education attainment on household-income-to-needs ratio, indicating smaller effects for Black compared to White families. Lower number of parents and higher number of children in Black families did not explain such racial disparities. Conclusions: The economic gain of parental education on helping family escape poverty is smaller for Black than White families, and this is not as a result of a lower parent-to-child ratio in Black households. Policies should specifically address structural barriers in the lives of all minorities to minimize the diminished return of SES resources across racial minority groups. Policies should also enhance quality of education and reduce the extra cost of upward social mobility for racial minorities. As the likely causes are multilevel, the solutions should also be multilevel. Without such interventions, it may be very difficult if not impossible to eliminate the existing economic and health gap between racial groups.

Keywords: socioeconomic status; income; education; poverty; ethnic groups; blacks; ethnicity; families; parents

JEL Classification: I24; I26; I31

1. Introduction

High socioeconomic status (SES) is protective against a wide range of poor health outcomes (Andresen et al. 1994; Bowen and González 2010; Brunello et al. 2016; Herd et al. 2007;

Johnson-Lawrence et al. 2013; Kim 2008; Leopold and Engelhardt 2013; Ross and Mirowsky 2003) and poverty is a root cause of poor health (McLoyd 1998; McLoyd 1990). Financial strain is a main underlying mechanism behind racial health disparities in childhood and beyond (Chen 2004). Children of families in poverty are at an increased risk for several health problems in the future (Baughcum et al. 1998; Hunt et al. 2015).

Due to differential treatment by the society, minorities have lower access to the opportunity structure (Assari 2018a, 2018b). As a result, minorities may have more difficulties leveraging their human capital resources, such as education, to escape poverty, compared to the majority groups. In this view, racial minority groups will have a lower chance than the dominant and socially privileged group to transform their human capital potentials, such as education, to tangible outcomes such as health (Baughcum et al. 1998).

Merely attaining higher education, however, may not universally protect all social groups against poor health outcomes (Assari 2018a, 2018b). Both across (Assari 2015a) and within (Assari 2018a, 2018b; Assari et al. 2016a) countries, there are large inequalities in how populations benefit from their education attainment. For instance, populations vary widely in how they can leverage their resources, navigate the system, and take advantage of the opportunities and resources that become available to them (Assari et al. 2016a; Hudson et al. 2012; Hudson 2009).

One potential reason for this differential gain from high education attainment is differential costs of upward social mobility for different social groups (Fuller-Rowell and Doan 2010; Fuller-Rowell et al. 2015). Due to structural racism, discrimination, and differential treatment by the society, minority group members have a higher tendency to turn to high effort coping (fighting the uphill battle) for climbing the social ladder (i.e., upward social mobility) (Hudson et al. 2016; Messersmith and Schulenberg 2010; Neighbors et al. 2011; Sellers and Neighbors 2008; Sellers et al. 2011). As a result, minority group members pay extra social, psychological, and physiological costs for their upward social mobility (Fuller-Rowell and Doan 2010; Fuller-Rowell et al. 2015).

Due to labor market preferences and practices, minorities have a lower chance of obtaining employment, obtaining high-paying employment, and receiving a promotion in their current employment at each educational level (Spalter-Roth 2007; Proudford and Nkomo 2006). Even at higher education levels, minorities are exposed to high levels of discrimination (Williams et al. 2003), which reduces the protective effects of their education (Assari and Caldwell 2017; Hudson et al. 2012) and increases their risk for undesired health outcomes (Williams et al. 2003). Lower quality of education in poor, primarily Black, neighborhoods results in lower income (Card and Krueger 1992a, 1992b), which in turn brings less gains for the minority groups compared to the majority group (Frisvold and Golberstein 2013). In addition, differential treatment by the healthcare system, low availability of resources (e.g., health care), and high levels of stigma and historical mistrust, operate as barriers against use of healthcare services when needed (Jacobs et al. 2006). All these are due to structural racism and diminish the effects of the very same SES indicators on the lives of minorities compared to Whites (Bailey et al. 2017).

A growing body of research shows that education may better translate to health gain for Whites than Blacks (Assari 2018a, 2018b; Assari and Lankarani 2016a). In a study among older adults, high education had a smaller effect on changing drinking patterns for Black than Whites (Hummer and Lariscy 2011). In other studies, employment (Assari 2017a), neighborhood quality (Assari and Caldwell 2017), social contacts (Assari 2017b), income (Assari 2018c), self-efficacy (Assari 2017c, 2017d; Assari and Lankarani 2017), affect (Assari et al. 2016b; Assari and Burgard 2015; Assari 2017e), and sleep (Assari et al. 2017) all had larger health effects for Whites than Blacks. Assari et al. (2018) used 15 years of follow-up data from the Fragile Families and Child Wellbeing Study (FFCWS) and compared Black and White families for the protective effects of maternal education and family structure at birth on subsequent body mass index (BMI) of youth at age 15. The study revealed a race by maternal education interaction on BMI, indicating smaller protective effects of maternal education for Black compared to White families. This study was one of the first studies to show that Blacks' diminished return also holds for transgenerational transition of SES from parents to the offspring (Assari et al. 2018).

Aims

To better understand the Blacks' Diminished Return theory (Assari 2018b), defined as smaller protective effects of SES on the health of Black than White families (Assari 2018a), this study examined racial differences in the effects of highest education level of parents on a family's ability to escape poverty (i.e., income-to-needs ratio) in a large nationally representative sample of American families with children ages 17 years or less.

2. Methods

2.1. Design and Setting

This cross-sectional study borrowed data from the National Survey of Children's Health (<http://www.childhealthdata.org/learn/NSCH>). NSCH is sponsored by the Maternal and Child Health Bureau and the National Center for Health Statistics. NSCH is one of the state-of-the-art studies to produce national and state-level prevalence estimates of a variety of physical, emotional, and behavioral indicators of children's health. The study also gathers data on child's family SES, context, and neighborhood (Blumberg et al. 2012; Bramlett and Blumberg 2007; Van Dyck et al. 2004).

2.2. Ethics

The NSCH protocol was approved by the CDC Institutional Review Board. All adolescents' parents or legal guardians provided informed consent. Assent was obtained from adolescents. More information on ethical aspects of the study is available elsewhere. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

2.3. Samples and Sampling

NSCH used the State and Local Area Integrated Telephone Survey (SLAITS) sampling frame (Blumberg et al. 2012; Bramlett and Blumberg 2007; Van Dyck et al. 2004). SLAITS is widely used for other national studies such as the National Immunization Study. In NSCH, trained interviewers called random telephone numbers and identified households with at least one child under the age of 18. One child was randomly selected for the interview from eligible households with one or more child. NSCH also conducted interviews with one adult in the household who knew the most about the child's health and well-being. NSCH included an overall number of 102,353 parents/caregivers and their children 0–17 years old.

2.4. Analytical Sample

This analysis was limited to Whites and Blacks. Our analytic sample consisted of 86,537 parents of children 0–17 years old, which was composed of Whites ($n = 76,403$, 88.29%) and Blacks ($n = 10,134$, 11.71%). The current study did not exclude Hispanic Whites and Hispanic Blacks.

2.5. Interviews

NSCH conducted interviews between January 2003 and July 2004. All interviews were performed either in English or Spanish. Trained interviewers asked parents or guardians a series of questions regarding SES status, neighborhood characteristics, as well as various aspects of their child's health (e.g., physical, emotional, and behavioral), parental health, and access to health care (Blumberg et al. 2012; Bramlett and Blumberg 2007; Van Dyck et al. 2004).

2.6. Variables

The current analysis used the following variables: race, SES (highest education level of the family, and income-to-needs ratio [poverty]), gender, age, number of adults in the family, and number of children in the family.

2.6.1. Independent Variable

Highest education level of the parents. The study asked the parent/guardian: “What is the highest level of education attained by anyone in your household?” Responses included (1) never attended; (2) elementary; (3) high school; (4) college; and (5) graduate school; Respondents could also select (6) refuse to answer or (7) don’t know. Highest education level of the parents has shown to have short-term and long-term effects on economic status, health, and well-being of the children (Dubow et al. 2009). A single item on highest level of parental educational attainment has shown to predict effects on a wide range of social, psychological, physical, behavioral, and physiological health of children (Albrecht and Gordon-Larsen 2014; Peter and Sahn 2000; Glozah and Pevalin 2015; Marshall et al. 2013; O’Toole and Wright 1991; Phillips et al. 2009; Rok Simon et al. 2016; Ross and Mirowsky 2011; Spera et al. 2009; Vollmer et al. 2017).

2.6.2. Dependent Variable

Income-to-needs ratio. Interviewers asked parents/guardians about household income (Blumberg et al. 2012; Bramlett and Blumberg 2007). Income to household size was based on the Department of Health and Human Services federal poverty guidelines (Van Dyck et al. 2004). Although it was measured as an eight-level ordinal variable (less than 100% federal poverty level, 100% to below 133% federal poverty level, 133% to below 150% federal poverty level, 150% to below 185% federal poverty level, 185% to below 200% federal poverty level, 200% to below 300% federal poverty level, 300% to below 400% federal poverty level, at or above 400% federal poverty level), SES was operationalized as a continuous measure ranging from one to eight, with higher scores indicating higher SES. The estimates are based on the census that was conducted in April 2000.

2.6.3. Moderator

Race. To ensure the confidentiality of the participants, the NSCH has collapsed responses to the question about the child’s race into (1) White only; (2) African American or Black only; (3) other race; and (4) multiple race. In the current study, we only used Blacks and Whites. Other races and multiple race categories were not included (Blumberg et al. 2012; Bramlett and Blumberg 2007).

2.7. Data Analysis

Weights. The NSCH data set has sampling weights that should be used for analyses. These weights consist of a base sampling weight and adjustment for multiple telephone lines per household and for nonresponse. Such weights are also post-stratified so that the sum of weights for each state equals the number of children in that state as estimated by the July 2003 U.S. census (Blumberg et al. 2012; Bramlett and Blumberg 2007).

To account for the NSCH weights, we used Stata 13.0 (Stata Corp., College Station, TX, USA). Taylor series approximation techniques were used to estimate the complex design-based standard errors (SE) and variances. All percentages and means reported in this study are weighted thus they reflect nationally representative estimates. That same is true for all statistical inferences.

To describe the sample, we reported frequency tables (%) and mean (SD). For bivariate analysis, we used Pearson correlation tests in the pooled sample and also by race correlations. We ran multiple linear regression models, first in the pooled sample and then in each race. In the pooled sample, we ran models without and with an interaction term between parental education and race. In the first models, the income-to-needs ratio (poverty) was the dependent variable, the highest parental

education attainment was the independent variable, and the age and gender were covariates. We also ran models to control for number of parents and number of children in the household. Adjusted odds ratio (OR) and their 95% confidence interval (CI) were reported. p values less than 0.05 were considered statistically significant.

3. Results

3.1. Descriptive Statistics

This analysis included 86,537 parents of children 0–17 years old. The sample was composed of White ($n = 76,403$, 88.29%) and Black ($n = 10,134$, 11.71%) families.

Table 1 summarizes the descriptive statistics for the pooled sample, as well as White and Black families. As this table shows, highest education of parents in Black families were significantly lower than education of parents in White families. Black families also had a lower income-to-needs ratio compared to White families. (Table 1).

Table 1. Descriptive statistics in the pooled sample and by race.

Child Data	All ($n = 86,537$)	Whites ($n = 76,403$)	Blacks ($n = 10,134$)
Age (Year)	Mean(CI) 8.71(8.65–8.77)	Mean(CI) 8.68(8.62–8.75)	Mean(CI) 8.84(8.68–9.01)
Race	%(95% CI)	%(95% CI)	%(95% CI)
White	81.98(81.48–82.48)	-	-
Black	18.02(17.52–18.52)	-	-
Gender	%(95% CI)	%(95% CI)	%(95% CI)
Male	51.08(50.51–51.65)	51.30(50.70–51.90)	50.05(48.47–51.64)
Female	48.92(48.35–49.49)	48.70(48.10–49.30)	49.95(48.36–51.53)
Household Data	Mean(CI)	Mean(CI)	Mean(CI)
Number of children in the household *			
1	22.13(21.77–22.49)	21.98(21.60–22.36)	22.81(21.82–23.83)
2	39.66(39.12–40.20)	40.93(40.36–41.50)	33.86(32.45–35.31)
3	24.43(23.90–24.98)	24.35(23.78–24.93)	24.83(23.37–26.34)
4+	13.78(13.26–14.32)	12.74(12.21–13.30)	18.50(17.01–20.08)
Number of adults in the household *			
1	14.51(14.09–14.94)	10.41(10.04–10.78)	33.20(31.71–34.72)
2	68.21(67.67–68.74)	72.84(72.30–73.37)	47.14(45.56–48.72)
3+	17.28(16.86–17.71)	16.76(16.31–17.21)	19.66(18.47–20.92)
Household Data	Mean(CI)	Mean(CI)	Mean(CI)
Highest education level *	2.64(2.64–2.65)	2.68(2.67–2.68)	2.49(2.47–2.52)
Income-to-needs ratio *	5.38(5.35–5.42)	5.70(5.67–5.73)	3.90(3.82–3.99)

* $p < 0.05$.

3.2. Bivariate Associations

Table 2 summarizes the bivariate associations in the pooled sample as well as for Whites and Blacks. (Table 2).

3.3. Logistic Regressions without Household Composition

Table 3 shows the results of two linear regressions, one without and one with race by parental education interaction. *Model 1* showed that in the pooled sample, higher education was associated with higher income-to-needs ratio. *Model 2* showed an interaction between the effects of race and education on income-to-needs ratio, suggesting that the effect of education on income-to-needs ratio is smaller for Blacks compared to Whites (Table 3).

Table 2. Correlation matrix in the pooled sample and by race.

	Race	Gender	Age	Education	Income to Needs Ratio	# Adults	# Children
All (n = 86,537)							
Child race (Blacks)	1.00						
Child gender (Females)	0.01	1.00					
Child age (Year)	0.00	−0.01	1.00				
Highest education of parents *	−0.11 *	0.00	0.02	1.00			
Family income-to-needs ratio *	0.01	0.01	−0.03	−0.07 *	1.00		
Number of adults in the household *	−0.10 *	−0.01	0.07 *	0.06 *	−0.06	1.00	
Number of children in the household *	−0.21 *	0.00	0.08 *	0.46 *	−0.20 *	0.07 *	1.00
Whites (n = 76,403)							
Child gender (Females)	-	1.00					
Child age (Year)	-	−0.01	1.00				
Highest education of parents *	-	0.00	0.01	1.00			
Family income-to-needs ratio *	-	0.01	−0.04	−0.03	1.00		
Number of adults in the household *	-	0.00	0.10 *	0.06 *	−0.07 *	1.00	
Number of children in the household *	-	0.00	0.08 *	0.41 *	−0.17 *	0.07 *	1.00
Blacks (n = 10,134)							
Child gender (Females)	-	1.00					
Child age (Year)	-	0.00	1.00				
Highest education of parents *	-	−0.02	−0.01	1.00			
Income-to-needs ratio *	-	0.01	0.00	−0.12 *	1.00		
Number of adults in the household *	-	−0.03	0.01	0.16 *	−0.08 *	1.00	
Number of children in the household *	-	−0.03	0.05	0.46 *	−0.27 *	0.16 *	1.00

* $p < 0.05$.

Table 3. Summary of linear regression models in the pooled sample and by race.

Chracacteristics	Pooled Sample (n = 86,537)		Whites (n = 76,403)	Blacks (n = 10,134)
	b(95% CI)		b(95% CI)	b(95% CI)
	Model 1	Model 2	Model 3	Model 4
	Main Effects	Main Effects + Interactions	Main Effects	Main Effects
Child race (Blacks)	−1.42(−1.51–1.34) ***	−0.46(−0.69–0.24) ***	-	-
Child gender (Females)	−0.01(−0.07–0.04)	−0.01(−0.06–0.04)	0.01(−0.04–0.07)	−0.12(−0.27–0.03)
Child age (Year)	0.03(0.02–0.03) ***	0.03(0.02–0.03) ***	0.03(0.02–0.03) ***	0.02(0.01–0.04) **
Highest education of the parents				
Less than high school	-	-	-	-
12 years, high school graduate	1.77(1.651.90) ***	2.09(1.95–2.23) ***	2.09(1.95–2.23) ***	0.91(0.69–1.13) ***
More than high school	3.92(3.81–4.03) ***	4.19(4.06–4.31) ***	4.18(4.06–4.31) ***	3.22(3.01–3.44) ***
Race × Parent Education				
Less than high school	-	-	-	-
12 years, high school graduate	-	−1.18(−1.44–0.92) ***	-	-
More than high school	-	−0.96(−1.21–0.71) ***	-	-
Intercept	2.23(2.09–2.37) ***	1.97(1.82–2.12) ***	1.92(1.77–2.07) ***	1.72(1.41–2.04) ***

Outcome: Households’ Income-to-needs ratio, Confidence Interval (CI); ** $p < 0.01$, *** $p < 0.001$. b, non-standardized regression coefficient.

Table 3 also shows the results of two logistic regressions specific to race. Model 3 and Model 4, showed an association between education and income-to-needs ratio for White and Black families. The magnitude of the association between education and income-to-needs ratio was larger for White than Black families (Table 3).

3.4. Logistic Regressions with Household Composition

Table 4 shows the results of four linear regressions. From the first two models, one is without interactions (Model 1), and one is with race by education interaction (Model 2). Model 1 showed that in the pooled sample, higher parental education was associated with higher income-to-needs ratio. Model 2 showed a significant interaction between the effects of race and highest education of parents on income-to-needs ratio, suggesting that the effect of parental education on the household income-to-needs ratio is smaller for Black compared to White families. (Table 4).

Table 4 also shows the results of two other linear regressions, specific to race. *Model 3* and *Model 4* showed an association between highest education of parents and families income-to-needs ratio for White and Black families, however, the magnitude of the association was larger for White than Black families. (Table 4).

Table 4. Summary of linear regression models in the pooled sample and by race.

Chrcacteristics	Pooled Sample (n = 86,537)		White Families (n = 76,403)	Black Families (n = 10,134)
	b(95% CI)	b(95% CI)	b(95% CI)	b(95% CI)
	Model 1	Model 2	Model 3	Model 4
	Main Effects	Main Effects + Interactions	Main Effects	Main Effects
Child race (Blacks)	−1.04(−1.12–0.96)***	0.13(−0.10–0.35)	-	-
Child gender (Females)	0.01(−0.04–0.06)	0.01(−0.04–0.06)	0.02(−0.03–0.07)	−0.04(−0.17–0.10)
Child age (Year)	0.04(0.04–0.05)***	0.04(0.04–0.05)***	0.04(0.04–0.05)***	0.03(0.01–0.04)***
Number of children in the household				
1 child	-	-	-	-
2 children	−0.27(−0.32–0.22)***	−0.28(−0.33–0.23)***	−0.25(−0.30–0.20)***	−0.42(−0.58–0.26)***
3 children	−0.94(−1.01–0.87)***	−0.94(−1.01–0.87)***	−0.88(−0.95–0.80)***	−1.25(−1.44–1.06)***
4 children or more	−1.76(−1.86–1.66)***	−1.76(−1.87–1.66)***	−1.73(−1.85–1.61)***	−1.92(−2.14–1.71)***
Number of adults in the household				
1 adult	-	-	-	-
2 adults	1.36(1.28–1.44)***	1.38(1.30–1.46)***	1.45(1.36–1.54)***	1.20(1.04–1.35)***
3 adults or more	0.54(0.44–0.63)***	0.56(0.46–0.66)***	0.60(0.49–0.71)***	0.54(0.33–0.75)***
Highest education of the parents				
Less than high school	-	-	-	-
12 years, high school graduate	1.42(1.30–1.54)***	1.77(1.63–1.91)***	1.77(1.63–1.90)***	0.50(0.28–0.72)***
More than high school	3.39(3.27–3.51)***	3.72(3.59–3.84)***	3.71(3.58–3.84)***	2.51(2.28–2.74)***
Race × Parental Education				
Less than high school	-	-	-	-
12 years, high school graduate	-	−1.28(−1.54–1.02)***	-	-
More than high school	-	−1.23(−1.48–0.99)***	-	-
Intercept	2.03(1.88–2.19)***	1.70(1.54–1.87)***	1.57(1.40–1.74)***	2.25(1.93–2.57)***

Outcome: Households' income-to-needs ratio, Confidence Interval (CI); *** $p < 0.001$. b, non-standardized regression coefficient.

4. Discussion

We found racial differences in the effects of parental education on the families' ability to escape poverty (i.e., income-to-needs ratio). Black families have more difficulties, compared to their White counterparts, in translating parental education for upward social mobility and to escape poverty.

Education better serves White compared to Black families as highly educated Black families are a higher risk of staying at poverty when compared to highly educated White families. The results of this study provide an explanatory mechanism for the Blacks' Diminished Return theory, defined as systematically smaller health gains of SES for Black than White families (Assari et al. 2016a; Assari and Lankarani 2016a; Assari 2015b, 2014). These results explain the growing literature on unequal gain of education on health outcomes for White and Black families and individuals. Education (Assari and Lankarani 2016a), employment (Assari 2017a), neighborhood quality (Assari and Caldwell 2017), and social contacts (Assari 2017b) generate smaller gains in life expectancy for Black than they do for White adults.

This is not the first study showing a gap in gains that follows education and other SES indicators across racial groups. There is a considerable body of research that supports our results (Canaday and Tamura 2009; Tamura et al. 2016; Hilger 2016, 2015; Neal and Johnson 1996; Assari 2018c; Oliver and Shapiro 2006, 1995; Shapiro 2004). There are considerable differences in employment, wages, and wealth across races, across each education level (Canaday and Tamura 2009; Hilger 2016, 2015; Neal and Johnson 1996; Oliver and Shapiro 2006, 1995; Shapiro 2004; Williams and Collins 1995).

Studies have previously documented racial differences in returns of education attainment (Hout 2012). Canaday and Tamura (2009) and Tamura et al. (2016) have discussed the differential access to education for Blacks compared to Whites which result in racial differences in living standards.

The major contribution of this study was to extend this literature to a national sample of parents and children. In a new study, Black children did not show a reduction in their risk of being overweight due to an increase in parental education. This pattern was different from White children who showed a protective effect of family SES on risk of being overweight (Assari 2018d). Assari et al. (2018) used 15 years of follow-up data from the FFCWS and showed that maternal education and family structure at birth protected White but not Black youth against obesity at age 15. Differential effects of parental education on families' poverty status may explain differential health effects of family SES on the health of Black and White offspring.

As this study shows, comparable educational attainment is more protective against household poverty for White than Black families. Society consistently promotes the gains of the socially privileged majority group (Whites). At the same time, specific needs of the economically disadvantaged, marginalized and racial minority groups may be ignored. Literature on children (Assari et al. 2018; Assari 2017f), adults (Assari 2016, 2015b), and older adults (Assari and Lankarani 2016b; Assari et al. 2016a) have all shown that SES indicators such as education better promote outcomes of Whites than Blacks. While multiple mechanisms may be involved, the current results propose the *differential transgenerational effect of SES* to help family to escape poverty as a mechanism. Despite obtaining high education levels, Black families are more likely to stay poor.

The results reported here suggest that processes involved in shaping Blacks' Diminished Return are intergenerational and start early in life. Such early processes are neglected causing racial health disparities in childhood (Assari et al. 2018; Assari 2017f). That is, differential patterns of the effects of parental education on household economic status may result in differential health status of offspring decades later.

Of course, these results do not suggest that Blacks prefer to stay poor or Blacks are unable to efficiently use their education to avoid poverty. Such an argument would be blaming the victim for their circumstances (Adler and Stewart 2009). Rather, society's differential treatment of racial groups is responsible for these differential gains. Structural racism, segregation, and discrimination across subsystems of the American society result in a systemic diminished return for minorities including Blacks (Assari 2018a, 2018b). High prevalence of societal barriers hinders Blacks abilities to leverage their education for upward social mobility. In the current system, Blacks do not stay poor because they are unmotivated. By making upward social mobility more challenging and costly for Blacks and other minority groups (Fuller-Rowell and Doan 2010; Fuller-Rowell et al. 2015), the American system fails highly educated Black families who are determined to climb the social ladder. In the U.S. economic system, maximum gains of the White majority and privileged group are guaranteed, and the gain for many minority groups are smaller (Assari 2018a, 2018b). This phenomenon offers an explanation for the ongoing widening of economic inequalities in the U.S. As the rich becomes richer and the poor becomes poorer, the Black-White economic and health gap grows.

Economic hardship and poverty of Blacks is not due to lack of aspiration. This is evidenced in our findings which assert that Black families who attain high education still face blocked opportunities; they must overcome systematic barriers, which reduce their chance of success and increase their stress level. High SES does not generate health in the presence of a high level of discrimination (Assari 2016). We argue that under pervasive racism and discrimination (e.g., an environment that is difficult to control) that is a part of the race-and-color-aware U.S. society, high aspirations may even be detrimental to the health of Blacks. Some research has also shown that high SES may be a vulnerability factor for Black families (Assari 2018a; Hudson et al. 2012). Hudson et al. (2012) have shown that discrimination is most costly in the presence of high SES, a finding that has been replicated for Black youth (Assari and Caldwell 2017). Of course, the solution is not to reduce aspirations in Blacks, but to

equalize the cost of upward social mobility across social groups so that all groups pay the same cost for climbing the social ladder (Assari and Caldwell 2017; Fuller-Rowell et al. 2015).

We attribute the differential gains observed in this study to racism and discrimination, however, there are studies that disagree with this argument. A study conducted by Neal and Johnson (1996) attributed the Black–White wage differences to premarket factors, rather than labor market discrimination. Their study did not show much residual market discrimination, after skills and abilities were taken into account. Neal and Johnson, however, did not collect data, but ran a parsimoniously specified wage equation that controlled for skill with the score of a test administered as teenagers prepared to leave high school and embark on work careers or postsecondary education. Although the test score explained the Black–White wage gap for women, these skills could not completely explain the gaps for men. Neal and Johnson (1996) concluded that the Black–White wage gap primarily reflects a skill gap, which is in turn is traceable to racial differences in family background.

Another possible explanation for our findings is that the quality of education received by Blacks is not as good as the quality of education received by Whites—regardless of the level of education attained. This could be due to inefficiencies in the public school system in inner cities and the inability for Blacks to pay for a higher quality of public education (by moving to a higher income neighborhood) or private education at the K–12 level, and the inability to afford as good of a college education as Whites. This is another avenue through which race would moderate the impact of educational attainment.

Limitations and Future Research

Our study had several limitations. The study was cross-sectional in design, thus no causative conclusion is possible. Education and poverty have bidirectional associations. While education attainment reduces risk of poverty, poverty reduces people’s chance to attain higher education. Thus, there is a need for replication of the findings using a longitudinal design to uncover the temporal order between changes in parental education and household poverty status. Such studies require multiple observations of parental education and household income over long periods of time across multiple social groups.

We did not have data on years of schooling. The main independent variable of interest—education—was operationalized as less than high school, high school graduate, and more than high school. The top category, in particular, was very heterogeneous, as it mixes people who have some college, college graduates, and people with advanced degrees. The graduate school is very heterogeneous, and economic returns of a MA in education, MBA, EDD or a PhD in biomedical engineering and MD are very different. As within this category, Whites have probably higher educational attainment than Blacks, not the differences observed are due to differential returns to education (i.e., omitted variable bias). Possible differences between individuals who completed eight years of schooling and those who completed 11 years of schooling could not be studied in this paper, as they were both in the same category. In addition, interpretation of the “highest level of education attained” may or may not be the “highest level of education completed.” In addition, we could not distinguish between type of institution attended (e.g., community college vs. elite university) or the major. There are differences in employment and earnings outcomes by these variables. If Whites are more likely to choose higher-paying majors than Blacks (e.g., engineering vs. sociology), then this again represents omitted variable bias. Future research should investigate the effects of years of schooling instead of the categorical education outcome as the independent regressor.

In addition, the models controlled for age and gender of children, but not of adults, which would be more important. We could also not include covariates that have been linked to poverty (e.g., region, metropolitan status, etc.) Furthermore, “distribution of the ages of all children in the household” is an important and relevant factor, more than the age and gender of an index child. The results should be replicated for the household income to household size ratio, which provides additional insight than the 1–8 measure of poverty.

Hispanic Whites and Hispanic Blacks were not excluded in his analysis. Thus, Hispanic ethnicity may have confounded our estimates of the moderation of race on the association between educational attainment and poverty. Since Hispanic Whites are also a minority group, they also experience a smaller impact of educational attainment than Non-Hispanic Whites. This will understate the magnitude of our estimates on the interaction between education and race. As this study only included Blacks and Whites, other racial minority groups should be included in future studies. There is a need to replicate these findings across a wide range of marginalized groups such as immigrants, Native Americans, and Hispanics.

There is also a need to study how other contextual factors, such as state and local policies, alter Blacks Diminished Return. Thus, future studies should not limit their measures to individual level factors, but should include contextual factors that families are embedded in. There is a need for future research to study local, state, and federal policies that minimize Blacks Diminished Return. Third, there is a need to study differential effects for other SES indicators such as family structure, income, employment, and wealth. In addition, relative importance of the labor market and educational system in causing Blacks' Diminished Return is unknown.

This study used data from the National Survey of Children's Health. Replications are needed on larger studies such as American Community Survey (ACS) or the Current Population Survey (CPS), which are the source of official poverty statistics in the United States.

Due to these conceptual and methodological limitations, the results presented here should be interpreted with caution. Despite these limitations, this study is one of the first studies that extend the Blacks' Diminished Return to the effects of education attainment of parents on household poverty status.

5. Conclusions

To conclude, we found racial differences in the effect of highest parental education on families' ability to escape poverty (income-to-needs ratio) in a national sample of parents and children in the United States. Black families continuously gain less from their educational attainment, compared to Whites. This may be due to racism, discrimination, and segregation—all of which disproportionately increase the prevalence of societal barriers in the lives of Black families. Future research should study multilevel policies that are effective in reducing Blacks Diminished Return. Policy solutions should go beyond equalizing access of racial groups to education by addressing societal barriers in the lives of Black families.

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