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Racial and Ethnic Differences in Teenage Fathers' Early Risk Factors and Socioeconomic Outcomes Later in Life

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Abstract

Background Understanding racial differences in teenage fathers' early risk factors and later outcomes is critical to inform programs for teenage fathers as our knowledge base on this population remains limited.

Objective The goal of this study was to assess how teen fathers' characteristics, including family background, delinquency, living arrangements, socioeconomic resources, and arrests, vary over time by race and ethnicity.

Method We analyzed National Longitudinal Study of Adolescent to Adult Health data. The analytic sample consisted of self-identified African American, Latino, and White males who fathered a child before the age of 20 (n=313). Data come from three time points: adolescence, transition to adulthood, and young adulthood.

Results Latino teen fathers came from families with lower educational attainment and greater reliance on public assistance. No statistically significant differences by race and ethnicity were found in parental involvement, school connectedness, marijuana use, and delinquency during adolescence. By their early 20s, a lower proportion of African American teen fathers were married compared to White and Latino teen fathers. By young adulthood, adjusted regression analyses showed that African American teen fathers were more likely to be arrested and earned a lower mean income than White teen fathers.

Conclusions Findings suggest that African American teen fathers, while no more disadvantaged or delinquent than the other two groups in their adolescence, experience greater accumulation of disadvantages over the life course. Intervention programs must consider the broader social and institutional context that may contribute to the disproportionate disadvantage among African American teen fathers in their young adulthood.

Keywords Teen fathers · Racial and ethnic differences · Longitudinal analysis

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Introduction

Youth from minority racial and ethnic groups are more likely to experience an early transition to parenthood. For example, national estimates revealed that the teen birth rates for Hispanic (31.9 per 1000) and African American (29.3 per 1000) adolescents are almost twice the teen birth rate of Whites (14.3 per 1000) (Martin et al. 2018). Despite racial and ethnic disparities in teen birth rates, studies have mostly compared teen fathers to non-teen fathers; racial and ethnic differences in teen fathers' early risk factors remain largely unknown. Studies that compared teen fathers to their peers have shown that teen fathers have a background of economic disadvantage (Martin et al. 2018) and are more likely to have parents with low educational attainment (Gest et al. 1999; Xie et al. 2001). Teenage fathers are also more likely to engage in substance use (Booth et al. 2008) and delinquent behavior (Miller-Johnson et al. 2004) in their adolescence and have lower academic competence when compared to non-teen fathers (Booth et al. 2008). The identification of ethnic and racial differences in teen fathers' characteristics can inform targeted interventions to interrupt teen fathers' trajectories of disadvantage.

Delinquent behavior and substance use are important correlates of teen fatherhood. The literature suggests that the birth of a child is a life event that potentially decreases trajectories of crime and substance abuse; however, there is evidence that this positive change is greater among older fathers compared to younger fathers (Kerr et al. 2011). In a population-based sample of males between the ages of 12–29, teen fathers had more assaults, drug sales, hard drug use, and arrests than non-teen fathers; no differences between the groups were found for marijuana use (Landers et al. 2015). In another study, among youth participating in a program serving young fathers, about 40% reported substance abuse and 30% had committed a felony (Weinman et al. 2002). Despite data showing that teen fathers are at increased risk for substance use and involvement with crime, no studies have investigated racial differences in the prevalence of substance use, delinquency and arrests within a sample of teen fathers drawn from population-based data.

Family formation and support from family are important aspects of the life course of teenage fathers. By their early 20s, over half of teen fathers are married or cohabiting (Scott et al. 2012). Studies on fathers have shown that White males are more likely to be married than African American males at the time of birth (Percheski and Wildeman 2008). While studies have not extensively examined racial differences in marital status specifically among teen fathers, being married may be a protective factor in the life course trajectory of teen fathers, as it is associated with reduced risk for substance use and crime (Landers et al. 2015; Nevarez et al. 2009). Additionally, married teen fathers are more likely to reside with their children, which is shown to be independently associated with reduced likelihood of substance use (Landers et al. 2015). As for parental support, research suggests that having supportive parents has a positive impact on teen fathers' involvement with their child (Fagan et al. 2007; Paschal et al. 2011), parenting behavior (Miller 1994), and mental health (Hunt et al. 2015). Despite evidence of the protective effect of residential status and parental support on teen fathers' life course trajectories, it is unknown whether these characteristics vary across teen fathers' race and ethnic groups.

The Present Study

Teen fathers' early risk factors and circumstances may lead to trajectories of disadvantages over the life course. The Life Course Perspective emphasizes the influence of social context (Elder et al. 2004) and cumulative disadvantage (Dannefer 2003), meaning that disadvantages experienced in early life are compounded over time, leading to an accumulation of inequalities (Ferraro and Shippee 2009). For some young males, fathering a child at an early age, compounded with socioeconomic disadvantages (e.g., low-income family, public assistance) and risk behaviors (e.g., delinquency, substance use), can make a successful transition to adulthood increasingly difficult, perpetuating trajectories of disadvantages and negative outcomes later in life (e.g., low educational attainment, unemployment, involvement with criminal justice system). The welldocumented literature in racial discrimination and social exclusion experienced by African American (Hacker 2003) and Latino youth (Foxen 2010) provides substantial evidence that teen fathers' circumstances and outcomes likely differ by race and ethnicity. Therefore, a successful transition to adulthood may be particularly problematic for African American and Latino as compared to White teen fathers. Hence, the aim of the study is twofold: (1) to identify race and ethnic differences in teenage fathers' psychosocial characteristics over three waves of data spanning from adolescence to young adulthood, and (2) to assess whether potential race and ethnic differences in teen fathers' socioeconomic outcomes later in life remain after accounting for early characteristics.

Guided by the Life Course Perspective and findings from previous research, we hypothesize that, in their adolescence, compared to White teen fathers, African American and Latino teen fathers come from more disadvantaged families (hypothesis 1), have lower school connectedness and are more likely to have ever repeated a grade (hypothesis 2). Similarly to studies with general sample of youths (i.e., non-teen fathers) (Keyes et al. 2015; Newcomb et al. 2014), we expect that African American teen fathers have lower rates of substance use in their adolescence compared to White and Latino teen fathers (hypothesis 3). As for delinquency, based on findings from studies with general samples of youth (Felson and Kreager 2015; López et al. 2017), we hypothesize that compared to White teen fathers, African American and Latino teen fathers have greater proportions of delinquent behavior in their adolescence (hypothesis 4). In their transition to adulthood, confirming results from previous research (Percheski and Wildeman 2008), we expect that compared to African American teen fathers, White and Latino teen fathers are more likely to be married (hypothesis 5) and, consequently, more likely to reside with their children (hypothesis 6). Given that studies have shown marriage to be negatively associated with parental support (Bunting and McAuley 2004; Swartz et al. 2011), we expect that African American teen fathers report more parental emotional and financial support compared to White and Latino teen fathers (hypothesis 7). In their adulthood, we hypothesize that compared to White teen fathers, African American and Latino teen fathers have lower socioeconomic attainment (hypothesis 8), and are more likely to have had previous experiences of arrests (hypothesis 9). Finally, we expect that compared to White teen fathers, African American and Latino teen fathers have worse socioeconomic outcomes and greater likelihood of arrests in their adulthood, even after controlling for background characteristics (hypothesis 10).

Method

Data and Participant Characteristics

This study is based on a prospective cohort of teen fathers from the National Longitudinal Study of Adolescent to Adult Health (Add Health). Add Health is a school-based longitudinal study of a nationally-representative sample of adolescents in the United State followed for over 10 years and includes in-school and in-home data collection. The Wave I in-home survey (1994–1995) included about 20,000 adolescents ranging from ages 11-21 (M = 16). Wave II data collection occurred 1 year after Wave I (1996) and included adolescents (N = 14,738) between the ages of 11 and 23 (M = 16). Wave III data collection (2001–2002) consisted of in-home interviews with participants from the Wave I in-home original sample. A total of 15,197 participants were located and interviewed. At Wave III, participants were between the ages of 18 and 26 years (M=22). In Wave IV (2008–2009), over 90% of the participants from the Wave I in-home survey were located and 80.3% were interviewed (N=15,701). Participants were between the ages of 24 and 32 years (M = 28). Add Health includes information on participants' social, economic, psychological, and physical well-being, as well as contextual information on family, neighborhood, school, friendships, and romantic relationships. This study includes data from participants' adolescence (Wave I, mean age = 15.97, SD = 1.74), transition to adulthood (Wave III, mean age = 22.40, SD = 1.82), and young adulthood (Wave IV, mean age = 29.0, SD = 1.79). The analytical sample includes males who fathered a child before the age of 20 and self-identified as Hispanic/Latino regardless of race (N=72), African American (N=90), and White (N=151). Twenty-three teen fathers self-identified as other racial category and were excluded from the analysis. The University of Maryland College Park Institutional Review Board approved this study.

Measures

Individual Characteristics

Age at Wave I was a continuous variable. Participants' place of residence was measured with a composite variable indicating 'partly rural' or 'completely urbanized' areas.

Family Background

Family background measures were selected from Wave I and mostly based on parent reports. In this analytical sample, over 90.0% of the respondent parents were mothers or the female head of the household. Parental educational attainment was measured as the highest degree achieved (1=No high school diploma, 2=High school/GED, and 3=College graduate and beyond). Receiving public assistance was based on whether they were currently receiving assistance, such as welfare, at the time of survey (0=No, 1=Yes). For household income, parents reported total family income in the previous year (1994), including public assistance or any other source. The parental involvement scale was based on adolescent reports on five items (e.g., "gone shopping," "played a sport," "worked on a project for school") and five items related to communication (e.g.,

talked about "someone you are dating," "a personal problem," "school work or grades") with mother and father, separately. Response options were 1 =Yes, 0 =No, and scale was calculated based on the sum of all items. Parental involvement was calculated based on the arithmetic mean of the maternal and paternal scales (range 0–15). A higher score indicates greater parental involvement.

School-Related Characteristics

All measures were assessed in Wave I. Ever repeated a grade was measured with participants' report on ever being held back a grade (0=No, 1=Yes). School connectedness was based on the arithmetic mean of five items: "I feel close to people at this school," "I am happy to be at this school," "I feel like I am a part of this school," "The teachers at this school treat students fairly," and "I feel safe in this school." The items were measured on a Likert scale (1=Strongly agree to 5=Strongly disagree), and the scale was reverse coded so greater values indicate higher school connectedness (α =.79).

Substance Use and Delinquency

Delinquency was based on the arithmetic mean of 15 items reflecting engagement in a variety of delinquent behaviors (e.g., get into a physical fight, run away from home, steal, sell marijuana or other drugs). Response options included 0=Never, 1=1 or 2 times, 2=3-4 times, and 3=5 or more times. All variables were measured in Wave I. Marijuana use and other drug use was assessed as "ever" versus "never" use. Other drug use was a composite variable (yes/no) based on participants' reports of use of any of the following drugs: cocaine, crystal meth, LSD, PCP, ecstasy, mushrooms, inhalants, ice, heroin, prescription medicines not prescribed for the participant, or intravenous use of illegal drugs. Alcohol use was assessed with participants' answer to the question: "In the past 12 months, on how many days did you drink five or more drinks?" Response options were: 0=None, 1=1-2 days in the past 12 months, 2=Once a month or less, 3=2-3 days a month, 4=1-2 days a week, 5=3-5 days a week, 6=Every day or almost every day.

Marital and Residential Status

Marital status was assessed at Wave III with participants' report on previous marriage and cohabitation. Based on these two items, a composite variable was created (0=Never married/cohabit, 1=Ever married, 2=Ever cohabit). Married individuals who previously cohabited were only coded as having married. Participants also reported on whether the child lived with them (0=No, 1=Yes) at IV.

Family Support

All family support constructs were drawn from Wave III. Perceived parental emotional support was based on two separate scales: maternal emotional support and paternal emotional support. Participants were asked about their relationships with their current and previous residential mother and father. Questions refer to biological mother, biological father, and other parent-like figures. Three items comprise perceived parental emotional support: (a) "You enjoy doing things with him/her", (b) "Most of the time he/she is warm and loving towards you", and (c) "How close do you feel to him/her?" and were measured on a

Likert-type scale (1=strongly agree to 5=strongly disagree). Items were reverse coded so that higher values indicated greater support. First, maternal and paternal emotional support scales were created separately by calculating the mean of these three items. Following, parental emotional support was based on the mean of the maternal and paternal scales. To reduce the amount of missing data, if the participant had information for only one of the parents, this mean was used (Needham 2008). Internal reliability for maternal scale was $\alpha = .86$ and for paternal scale $\alpha = .91$. Perceived parental financial support was also assessed for residential and non-residential mother and father. Participants were asked whether their parent(s) gave or paid them anything significant in the past 12 months. Response options for mother and father financial support were combined into a single measure of parental financial support from one or both parents, and $0=N_0$, if participants reported no financial support from both parents. In both measures of perceived parental support, 109 participants had completed data on fathers only.

Socioeconomic Attainment and Arrests

All items were from Wave IV. Educational attainment was based on self-report of highest education achieved (1=Less than high school, 2=High school graduate/professional training, 3=Some college, 4=Complete college and beyond). For income, participants reported on personal earnings before taxes in the previous year. Twenty-three teen fathers reported no income (seven Latino, eight African American, and eight White participants). Work participation assesses whether participants were currently working for pay at least 10 h a week (0=No, 1=Yes). Arrests were self-reported and coded as 0=No, 1=Yes (ever arrested).

Data Analysis

All descriptive statistics were conducted in Stata/MP 14.0, taking into account survey weights (StataCorp LP, College Station, TX). Bivariate regression models were used to obtain p values to assess racial and ethnic differences in proportions and means across measures. We conducted a complete case analysis with multivariate models to assess whether race and ethnic differences in teen fathers' socioeconomic outcomes and arrests remain after controlling for early background characteristics. We used multinomial logistic regression for education, logistic regression for work participation and arrests, and linear regression for income as an outcome. To obtain a parsimonious model, we retained variables that were associated with the outcomes at the significant level of p < .20. We kept age of the participants in Wave I regardless of its statistical significance in the bivariate analysis. We maintained in the analytical model all cases with Wave IV cross-sectional sample weight.

Missing data varied across measures (range 0-25.9%). Analysis of variables with missing data greater than 5% (9 variables out of 22) revealed that participants with missing values on parental education, parental income, and parental financial and emotional support were older than those with complete values on these variables. Also, Latino teen fathers had a greater proportion of missing values on parental income. Finally, African American teen fathers were more likely than White and Latino teen fathers to have missing values on marriage/cohabitation.

Results

Descriptive Characteristics

In this analytical sample, 77.9% of teen fathers were between the ages of 18–19 at birth of the first child (76.7% African American fathers, and 73.6% Latino fathers, 80.8% White fathers). By the mean age of 28, participants had a mean of 2.19 children (2.33 for African American fathers, 2.19 for Latino fathers, and 2.11 for White fathers), with a range of one to seven.

Family Background

Hypothesis 1 Compared to White teen fathers, African American and Latino teen fathers came from more disadvantaged families. As shown in Table 1, in their adolescence, African American and Latino teen fathers lived in households with lower mean income (p=.061) and received more public assistance (p=.043), compared to White teen fathers. However, for parental educational attainment, only Latino teen fathers (60.9%) had a greater proportion of parents without high school diploma compared to White teen fathers (24.8%), p < .001. The differences between African Americans and Whites' parental education was not significant.

School-Related Characteristics

Hypothesis 2 Compared to White teen fathers, African American and Latino teen fathers have lower school connectedness and are more likely to have ever repeated a grade. Results showed that Latino teen fathers (57.2%) repeated a grade at greater proportion than White (33.3%) and African American (37.5%) teen fathers, however this result was marginally statistically significant (p=.084). No statistically significant differences by teen fathers' race and ethnicity were found in school connectedness (Table 1).

Substance Use and Delinquency

Hypothesis 3 African American teen fathers have lower rates of substance use in their adolescence compared to White and Latino teen fathers. Compared to African American teen fathers (3.3%), White teen fathers (16.3%) and Latino teen fathers (16.6%) had greater proportions of using other drugs in adolescence (p=.025). No statistically significant differences by teen fathers' race and ethnicity were found in lifetime marijuana use.

Hypothesis 4 Compared to White teen fathers, African American and Latino teen fathers have greater proportions of delinquent behavior in their adolescence. Contrary to our hypothesis, results show no statistically significant differences by teen fathers' race and ethnicity in delinquent behavior.

Table 1 Racial and ethnic differences in teen fathers' early risk factors (W1)	arly risk fac	tors (W1)				
	N	Total	White	African American	Latino/Hispanic	<i>p</i> value
Individual characteristics						
Age, mean (SE) (range 12.74–19.72)	313	15.63 (0.13)	15.73 (0.18)	15.40 (0.27)	15.65 (0.31)	.738
Location						
Partly rural	310	40.1%	54.4%	33.1%	8.4%	.005
Completely urbanized		59.9%	45.5%	6.9%	91.6%	
Family background ⁴						
Parent educational attainment $(\%)$						
Less than HS	262	30.1%	24.8%	21.8%	%6.09	<.001
HS graduate/incomplete college		63.3%	68.3%	67.7%	39.0%	
College graduate and beyond		6.1%	6.9%	10.5%	0.1%	
Receiving public assistance, (%)	261	17.8%	11.6%	22.1%	32.5%	.043
Household income, mean (SE)	232	\$29,240 (2465)	\$32,579 (2634)	\$23,031 (3274)	\$26,342 (\$6897)	.061
Parental involvement, Mean (SE) (range 0-15)	295	5.23 (0.22)	5.17 (0.31)	5.65 (0.41)	4.83 (0.39)	.329
School-related characteristics						
Ever repeated a grade (%)	313	39.1%	33.3%	37.5%	57.2%	.084
School connectedness scale, mean (SE) (range 1-5)	301	3.64 (0.05)	3.64 (0.07)	3.68 (0.09)	3.60 (0.14)	.853
Substance use and delinquency						
Marijuana use, ever (W1)	308	40.6%	39.6%	34.6%	50.5%	.312
Other drug use, ever (W1)	308	13.2%	16.3%	3.3%	16.6%	.025
Alcohol use, mean (SE)						
(range 0–6) (W1)	313	1.02 (0.12)	1.15 (0.16)	0.63(0.17)	1.13 (0.23)	.084
Delinquency scale, mean (SE) (range 0-2)	306	0.44(0.03)	0.42 (0.04)	0.39 (0.07)	0.55(0.08)	.244
Results are weighted						

^a All parent report, except for parental involvement scale which the teen father reported

Relationship and Residential Status

Hypotheses 5 and 6 Compared to African American teen fathers, White and Latino teen fathers are more likely to be married and more likely to reside with their children. Results shown in Table 2 confirmed these hypotheses. By their transition to adulthood (mean age 22.1), White (48.0%) and Latino (44.9%) teen parents were more likely to have married than African American (16.8%) teen fathers (p=.001). African American (43.1%) teen fathers were least likely to reside with their child than White (62.6%) and Latino (61.2%) teen fathers (p=.053).

Family Support

Hypothesis 7 African American teen fathers report more parental emotional and financial support compared to White and Latino teen fathers. As shown in Table 2, African American teen fathers have a greater mean of perceived parental emotional support (p < .004) and a marginally greater proportion receiving financial support (p < .078), compared to White and Latino teen fathers.

Socioeconomic Outcomes and Arrests

Hypotheses 8 and 9 Compared to White teen fathers, African American and Latino teen fathers have lower socioeconomic attainment and are more likely to have had previous experiences of arrests. As shown in Table 3, by their young adulthood (mean age

	Ν	Total	White	African American	Hispanic/Latino	p value
Individual characteristics						
Age (W3), <i>mean</i> (<i>SE</i>) (range 18.78–26.41)	262	22.10 (0.21)	22.16 (0.25)	21.93 (0.36)	22.10 (0.48)	.850
Age (W4), <i>mean</i> (<i>SE</i>) (range 25.49–32.75)	313	28.58 (0.20)	28.62 (0.42)	28.37 (0.37)	28.66 (0.24)	.784
Relationship and residen- tial status						
Marital status (W3) (%)						
Never married/cohabit	262	14.9%	14.2%	27.5%	4.7%	.001
Ever married		41.3%	48.0%	16.8%	44.9%	
Ever cohabit		47.7%	37.6%	55.6%	50.4%	
Resides with child (W4) (%)	299	57.2%	62.6%	43.1%	61.2%	.053
Family support (W3)						
Perceived parental emo- tional support, <i>mean</i> (<i>SE</i>) (range 2.33–5.00)	236	4.39 (0.06)	4.34 (0.16)	4.61 (0.07)	4.33 (0.07)	.004
Reports parental financial support (%)	236	66.5%	68.6%	79.9%	68.6%	.078

 Table 2
 Racial and ethnic differences in teen fathers' relationship and residential status in their transition to adulthood (W3) and young adulthood (W4)

Results are weighted

	Z	Total	White	African American	Hispanic/Latino	p value
Educational attainment (%)						
Less than HS	313	28.1%	20.3%	37.5%	37.9%	.227
HS graduate/professional training		38.9%	43.4%	35.4%	30.6%	
Some college		28.1%	30.7%	21.7%	28.7%	
Completed college		5.0%	5.6%	5.4%	2.8%	
Income, <i>mean</i> (SE) (range \$0–165,000)	290	\$33,367 (2325)	\$41,699 (2909)	\$15,674 (\$1848)	\$30,267 (4696)	<.001
Work participation (%)	258	83.8%	92.3%	72.5%	85.8%	.051
Ever arrested (%)	312	64.0%	54.1%	77.5%	74.2%	.010
Results are weighted						

Table 3 Racial and ethnic differences in teen fathers' socioeconomic outcomes and arrests in young adulthood (W4)

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28.6), a greater proportion of African American (37.5%) and Latino (37.9%) teen fathers did not complete their high school education compared to Whites (20.3%); however, this association was not statistically significant (p=.227). African American teen fathers had a mean income \$26,095 and \$14,593 lower than White and Latino teen fathers, respectively (p<.001). African American teen fathers also had lower work participation (72.5%) compared to White (92.3%) and Latino (85.8%) teen fathers (p=.051). By their young adulthood, approximately two-thirds of African American teen fathers and Latino teen fathers had been arrested compared to half of White teen fathers (p=.010).

Hypothesis 10 Compared to White teen fathers, African American and Latino teen fathers have worse socioeconomic outcomes and greater likelihood of arrests in their adulthood, even after controlling for background characteristics. This hypothesis was confirmed only for African American teen fathers. In multivariate regression models shown in Table 4, by their young adulthood, African American teen fathers were more likely to be arrested (aOR 3.00, p = .032) and have a lower income (B = -0.36, p < .001) compared to White teen fathers. Contrary to our hypothesis, no statistically significant differences in socioeconomic outcomes and arrests were found for White and Latino teen fathers after controlling for early background characteristics.

Discussion

This descriptive study sought to investigate differences in circumstances and outcomes of African American, Latino and White teen fathers in a nationally representative sample of youth. Findings showed that, in adolescence, Latino teen fathers come from families with low parental educational attainment and greater reliance on government assistance. For

	African American versus White ^a	Hispanic versus White ^a
	OR (95% CI), <i>p</i>	OR (95% CI), <i>p</i>
Educational attainment		
Less than HS	1.90 (0.46, 7.89), <i>p</i> =.372	0.93 (0.29, 2.98), <i>p</i> = .898
HS graduate/professional training (Ref: some college/completed college)	1.32 (0.48, 3.61), <i>p</i> = .590	0.47 (.12, 1.76), <i>p</i> =.261
Work participation (Ref: not working)	0.42 (0.10, 1.76), <i>p</i> = .223	1.41 (0.30, 6.59), <i>p</i> = .660
Arrests (Ref: never arrested)	3.00 (1.25, 7.79), <i>p</i> = .032	1.55 (0.60, 3.99), <i>p</i> = .395
	B (SE), <i>p</i>	B (SE), <i>p</i>
Income	36 (.06), <i>p</i> <.001	.19 (.11), <i>p</i> = .078

 Table 4
 Multivariate logistic and linear regression models of socioeconomic outcomes and arrests in young adulthood

Results are weighted

^aMultivariate regression models control for age W1, location, parental education, public assistance, adolescent household income, being held back a grade, other drug use, and alcohol use African American teen fathers, family background, parental involvement, school-related characteristics, substance use and delinquency in adolescence do not distinguish them as a group at higher risk for negative outcomes socioeconomic outcomes later in life. African American teen fathers, for example, are no more disengaged in school, nor did they engage in more delinquent behaviors in their adolescence than their White counterparts. In fact, compared to African American teen fathers, White teen fathers have greater substance use. White fathers also come from families with higher incomes.

Come adulthood, the story changes. Notable race and ethnic differences emerge in teen fathers' relationship status. In the early years after birth, union formation through marriage or cohabitation is commonly observed among teen parents, despite significant decline in these relationships a few years after child birth (Edin and Kefalas 2011; Edin and Nelson 2013). In studies using nationally representative samples of youth, findings showed that about 60% of teen mothers cohabited before their child turned age three (Manning and Cohen 2015) and over half of the teen fathers were married or in a cohabiting relationship between the ages of 22 and 24 (Scott et al. 2012). Consistent with these findings, almost half of teen fathers in our analytical sample are married or cohabiting by their early 20s. However, this varied significantly by race and ethnicity. African American teen fathers are less likely to be married compared to White and Latino teen fathers. African American teen fathers are also less likely than the other two groups to live with their child. These differences might be explained by the greater socioeconomic disadvantages experienced by African American teen fathers in their young adulthood, which may reduce the likelihood of marriage among young adults (Furstenberg 2010).

Our bivariate analyses showed that African American teen fathers have significant lower income in adulthood compared to White and Latino teen fathers, somewhat lower work participation, and higher rates of arrests. Racial differences in teen fathers' unemployment reflected national estimates (US Department of Labor 2009), with African American teen fathers having two times the unemployment rate of Whites; overall, teen fathers experienced greater unemployment rates than the national estimate for males in 2009—year of data collection (US Department of Labor 2009). Teen fathers in this sample also have a greater proportion of previous arrests when compared to other national samples of males (Schwartz and Beaver 2011), with our study showing higher rates among African Americans and Latinos. Arrests may have negatively impacted teen fathers' work participation, as a record of previous arrest reduces future employability (Solomon 2012). African American teen fathers' lower income in young adulthood—even after adjusting for early background characteristics—may also translate into negative outcomes to their children, making it difficult to break the intergenerational cycle of poverty that often accompanies teen childbearing.

Considering that, according to many outcomes in adulthood, African American teen fathers are doing worse than White and Latino teen fathers, it was surprising to find greater family support among African American teen fathers compared to the other two population groups. Our study showed that, in their early 20s, 80% of African American teen fathers receive parental financial support, while only a little over two-thirds of White and Latino teen fathers receive financial support from their parents. A few factors may explain this difference. First, confirming our study hypothesis, White and Latino teen fathers are more likely to be married, which is associated with reduced family support (Henly 1997; Mollborn 2010). Second, compared to White and Latino teen fathers, we found that African American teen fathers are more likely to experience economic strains and consequently may depend more on their families for financial help. We also found that African American teen parents have higher mean of perceived parental emotional support than White

and Latino teen fathers. This finding might be explained by the stronger sense of family ties within some members from the African American community resulting from the need to survive and succeed in a historically hostile social environment (Johnson and Staples 2005).

Our findings showed that substance use in adolescence is one area where White and Latino teen fathers fare worse than African American teen fathers. Confirming our hypothesis, White and Latino teen fathers, in their adolescence, have a greater proportion of individuals who use other drugs and a greater mean of alcohol use than African American teen fathers. Even though studies have documented some young males' desire to change risk behaviors when they become fathers (Parra-Cardona et al. 2008), the trajectories of substance abuse and involvement with criminal justice system may to persist in later stages of life. Thus, the importance of addressing substance use in the early stages of teen fathers' developmental trajectory. As substance use can negatively affect teen fathers' ability to maintain contact with and care for their children, efforts are necessary to address substance use prevention and treatment early in teen fathers' life course trajectories, particularly among White and Latino males.

Limitations of this study refer to a relatively small number of teen fathers, particularly African Americans and Latinos. Findings may therefore not be generalizable to the teen fathers not captured in this population-based survey. The small sample of teen fathers may also reflect attrition, as 'teen father' was based on retrospective report at Waves III and IV (adolescent males were not asked about birth on previous waves). Therefore, this study may have excluded those at a greater disadvantage, as they are more likely to have dropped out in previous waves of data collection (Johnson et al. 2007).

Conclusion

In conclusion, the characterization of teen fathers' circumstances and outcomes over the life course may inform interventions to help teen fathers' successful transition into adulthood while supporting them to fulfill their role as involved and supportive parents. Racial and ethnic differences in teen fathers' patterns of substance use, socioeconomic outcomes, and involvement with criminal justice system suggest important implications for interventions and resource allocation to support teen fathers' successful transition into adulthood. Overall, compared to White and Latino teen fathers, African American teen fathers start their life course trajectories without striking disadvantages in key markers of later socioeconomic success (e.g., parental education, grade repetition, and school involvement); however, over time, their trajectories take them in different directions. Even when controlling for early disadvantages, African American teen fathers have greater odds of arrests and lower income compared to Whites despite no differences in delinquency or education. Public policies and investment in professional/employment training, as well as broader policies addressing arrests among African American teen fathers in particular, may help them secure stable employment with higher wages in adulthood. White and Latino teen fathers, on the other hand, are at greater need for substance use prevention and treatment in their adolescence as rates of drug use other than marijuana are high.

Future studies using prospective cohorts with multiple time points should examine racial differences in teen fathers' pathways to socioeconomic outcomes in adulthood in order to identify pivotal points of intervention (i.e., the specific mechanisms connecting teen fatherhood with socioeconomic disadvantage) for each racial group. Further, by mapping trajectories of socioeconomic status, researchers can further elucidate when African American teen fathers experience greater accumulation of disadvantages over the life course—helping in the identification of policy and intervention targets to support this population group in a successful transition to adulthood.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval 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 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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