Does Family Complexity in Childhood Explain Race-Ethnic Disparities in Multipartner Fertility in Adulthood?

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Abstract

We investigate whether family complexity is transmitted across generations, and whether such a process may explain higher levels of multipartner fertility (MPF) among Blacks and Hispanics. Using the National Longitudinal Survey of Youth, 1997 cohort, we test whether family complexity—which encompasses family structure (living with two biological parents until age 18) and the presence of half- or step-siblings—in adolescence predicts higher-order births with a new partner versus a prior partner, with a focus on race-ethnicity. We find that those who lived in a non-two biological parent household, regardless of whether they had half- or step-siblings, are at an increased risk childbearing with a new partner. Family structure and sibling configuration does not mediate race-ethnic differences in the odds of MPF in adulthood. Instead, race is a moderator: family complexity in adolescence predicts childbearing with a new partner for Hispanics and Whites, but not for Blacks.

Introduction

Although growth in family complexity (a concept that includes both family structure and the presence of half- or step-siblings) seems to have leveled off in recent years (Manning, Brown, and Stykes 2014), having children with different partners, a phenomenon known as multipartner fertility (MPF), remains common in the United States. About 10% of all individuals 15 and older, and 20% of those with two or more children, have MPF (Monte 2019), and MPF is considerably higher among race-ethnic minorities and the disadvantaged (Carlson and Furstenberg 2006; Guzzo 2014; Guzzo and Furstenberg Jr. 2007a, 2007b; Meyer, Cancian, and Cook 2005). Differentials in the experiences of childbearing, particularly the context of childbearing within a stable partnership, are part of the broader trends in American families that seem increasingly bifurcated (Cherlin 2010; McLanahan 2004).

The reasons underlying disparities, particularly race-ethnic differences, remain unclear. One potential explanation is that individuals whose parents experienced certain family behaviors are more likely to experience those behaviors themselves in adulthood. There is substantial evidence of intergenerational transmission of fertility behaviors (Barber 2001; Högnäs and Carlson 2012) as well as union formation and stability (Amato and Patterson 2017; Kamp Dush, Arocho, Mernitz, and Bartholomew 2018; Ryan, Franzetta, Schelar, and Manlove 2009). Only one study, using Norwegian and Swedish data, has directly established a link between having half-siblings during childhood and adult MPF (Lappegård and Thomson 2018). In the U.S., experiences of family complexity are considerably higher among race-ethnic minorities (Manning, Brown, and Stykes 2014), and, compared to the Nordic countries, U.S. social policy does little to ameliorate the financial disparities that exist across family structures (Brady and Burroway 2012; Cohen 2015). Thus, the linkage between parents' and adult children's family

experience may be especially strong in the U.S. and contribute to higher levels of MPF among Black and Hispanic individuals. In this article, we investigate how family complexity is linked to MPF among young adults, focusing on race-ethnic differences. We use the National Longitudinal Survey of Youth, 1997 cohort (NLSY97), which is uniquely suited for this analysis. The NLSY97 has information on experiences of family complexity during adolescence, rich data on MPF in young adulthood, and includes oversamples of Black and Hispanic individuals.

Intergenerational Transmission of Family Behaviors

There is a growing body of work linking adult family behaviors to family structure and change during childhood. For instance, men and women's age at first birth is sharply related to their mother's age at first birth (Barber, 2001), and an adult child is more likely to have a first birth outside of marriage if either parent had ever had a nonmarital birth (Högnäs and Carlson 2012). Young adults also have an elevated risk of union instability (both cohabitation dissolution and marital divorce) if their parents had a history of union instability (Amato and Patterson 2017). If intergenerational processes are at play, then growing up in a complex family—with step- or half-siblings in or outside of the household—may be another family behavior reproduced across parents and children. Indeed, Lappegård and Thomson (2018) find, in a study using Norwegian and Swedish data, that men and women with half-siblings (i.e., parental MPF) are more likely to have MPF themselves as adults.

Through what processes and mechanisms are family structure and family behaviors transmitted across generations? The selectivity of family instability could also be a factor in the intergenerational transmission of family behaviors. Less advantaged parents are more likely to experience family instability and complexity, and the strong intergenerational transmission of socioeconomic status in the United States would suggest that their children would be similarly

disadvantaged (Chetty, Hendren, Kline, Saez, and Turner 2014). If this is the case, it is not family structure per se that is being transmitted across family structure but, rather, socioeconomic status that links adults' family behaviors with that of their parents. Other work, however, suggests there is an effect of family structure on adult children's outcomes independent of socioeconomic status (Fomby 2013; Högnäs and Carlson 2012; Martin 2012).

One such avenue through which parents' family experiences may influence children's family behaviors in adulthood, though difficult to test empirically, is through socialization processes. By observing their parents' interactions with each other and with new romantic partners, children learn relationship skills upon which they can model their own future relationships upon. But when parents' relationships are unstable – which occurs, by definition, when two biological parents end their relationship and form new ones – children may have few opportunities to learn strong relationship skills (Amato and Patterson 2017). The stepfamilies that form when parents repartner also sometimes have poorer relationship quality and more conflict (Sweeney 2010). Thus, parents' own relationship difficulties may inhibit their children's ability to learn strong relationship skills, thus increasing their offspring's chances of experiencing union dissolution and repartnering, both of which are necessary for MPF. Similarly, parents' relationship behaviors may foster more liberal attitudes toward family behaviors, including normalizing relationship dissolution and repartnering (Amato and Patterson 2017); this, too, may be linked to greater instability among adult children.

There is also evidence that family structure, instability, and repartnering directly affects children's short-term and long-term behaviors and do so in a way that may influence adult children's risk of MPF. Children who spend time in a single-parent, stepfamily, or cohabiting family type tend to fare worse, across a variety of indicators, than their peers who spend their

entire childhood living with both biological parents in a married household (McLanahan and Sandefur 1994; Amato 2005; Langton and Berger 2011). Biological parent households tend to have greater resources as well as higher-quality parenting, lower parental stress, and stronger coparental relationships (McLanahan and Beck 2010). This reduces the risk of problem behaviors and poorer social development (Cavanagh and Huston 2006, 2008). Moreover, family instability influences children's outcomes independently of family structure. Both the social stress perspective (George 1989, 1993) and family stress theory (Conger et al. 1992; McCubbins and Patterson 1982) suggest that such multiple changes, such as experiencing a parental union dissolution and then one or both parents repartnering, could reduce the available resources – both economic and psychosocial – within a family and lead to poorer parenting (Beck, Cooper, McLanahan, and Brooks-Gunn 2010; Cavanagh and Huston 2008; Osborne and McLanahan 2007). Thus, differential resources and poorer parenting associated with non-intact families could indirectly affect the risk of MPF by increasing the likelihood of lower socioeconomic status as adults. It could also influence the risk of MPF more directly, as there is some evidence that children who grow up in non-intact families, particularly stepfamilies tend to enter into family roles (like parenthood and partnerships) earlier than their peers in married biological parent families (Amato and Kane 2011; Ryan et al. 2009; Wolfinger, 2003). The earlier schedule of family formation, in turn, increases the risk of MPF because earlier childbearing tends to occur in less stable unions (Edin and Tach 2012).

The arguments above, however, are largely linked to family structure. Family complexity – which considers both family structure and the presence of half- or step-siblings – may represent a unique situation that may affect adult children's risk of MPF. Adolescents with half- and step-siblings have poorer academic performance and more behavioral problems, school

issues, and depression than their peers with only full siblings, even when controlling for family structure (Halpern-Meekin and Tach 2008; Strow and Strow 2008; Tillman 2008). Accounting for family complexity allows the identification of stepfamilies in which nuclear families are nested. It is possible for a child to live with both biological parents but also have a half-sibling from either or both parents' prior union, and such complex families are often missed when focusing entirely on family structure. Family complexity may thus capture additional stressors and ambiguities that family structure alone does not reflect. For instance, children may compete for parent and stepparent attention and resources, and differential treatment and rules across children may heighten resentment and conflict, thus leading to less positive parent-child relationships. If a parent's history of nonmarital fertility or cohabitation normalizes such behaviors for their children, complex family structures may also normalize non-traditional families, too, reducing the social costs of having complex families for adult children.

Lappegard and Thomson (2018) find that half-siblings does indeed increase the risk of MPF among adult children, even when accounting for family structure. However, the risk of MPF was greatest for individuals who were not living with their biological parents, consistent with the notion that family structure differences drive part of the linkage. They interpret the general finding as evidence of differential socialization processes, though the administrative data used in their analyses means they were unable fully account for key mechanisms, such as parenting behaviors or income. Additionally, their study settings, Norway and Sweden, are considerably more homogenous and have less inequality and diversity among family types, along with greater support for families. As such, it is unclear whether the intergenerational transmission of family complexity would occur in the U.S. and in the same manner across race-ethnic groups, which we discuss in the next section.

Race-Ethnic Differences in Family Complexity and MPF

There are longstanding differentials in marriage and fertility behaviors across race-ethnic groups (Raley, Sweeney, and Wondra 2015; Sweeney and Raley 2014). Black and Hispanic individuals begin childbearing at earlier ages than their white counterparts, and their births are more frequently unintended and occur outside of marriage (Martin et al. 2018; Mosher, Jones, and Abma 2012). Whites, conversely, are more likely to marry (and do so at earlier ages) than Blacks, and their marriages tend to be more stable, with Hispanics generally falling in between whites and Blacks (Allred 2018; Eickmeyer and Hemez 2017; Payne 2018). Some, but not all, of race-ethnic disparities in family behaviors are driven by underlying socioeconomic differentials (Sweeney and Raley 2014; Raley, Sweeney, and Wondra 2015). These differentials in the context of childbearing and the stability of unions have implications for multipartner fertility (MPF). All else equal, beginning childbearing early and in unstable circumstances increases exposure to both new relationships and new children within those relationships (Guzzo 2014). The latest estimates, using nationally representative data that directly asks individuals if they have children with more than one partner, shows that, among mothers with two or more children, about 43% of Black mothers, 35% of foreign-born Hispanics, 24% of white mothers, and 23% of native-born Hispanics have MPF (Stykes and Guzzo 2019), with similar disparities among men (Monte, 2019).

MPF is higher among disadvantaged individuals, but even when accounting for socioeconomic status, MPF among Black and Hispanic men and women is higher relative to White men and women (Carlson and Furstenberg 2006; Guzzo and Furstenberg 2007a). To the extent that family complexity is transmitted across generations via MPF (Lappegärd and Thomson 2018), the higher levels of complexity Black and Hispanic adults experienced during

their own childhood may be a key explanatory factor for race-ethnic differentials in MPF. This may occur because family complexity impacts parenting-child relationship quality and further impedes educational attainment, beyond the general association between parents' and adult children's socioeconomic status. It could also influence the formation and stability of unions and the odds of childbearing at younger ages, such that Black and Hispanic adults begin childbearing earlier and are less likely to have a stable union, increasing exposure to MPF. More direct, though difficult to measure, pathways include altering beliefs and attitudes as well as providing fewer examples of healthy relationships (Amato and Patterson 2017). Thus, we hypothesize that accounting for socioeconomic status, union and fertility characteristics, and adolescent experiences of family complexity may reduce or attenuate race-ethnic differences in the likelihood of experiencing MPF.

It is also possible, though, that even if such characteristics are associated with the likelihood of experiencing MPF, they may not fully explain race-ethnic differences. Especially relevant for the current project, there is research suggesting that family complexity may be less consequential for some groups than others. Strow and Strow (2008), for example, find that complex families influenced White children's well-being but were unrelated to well-being among Black children. Other research also finds differential impacts of family structure and family instability (Fomby, Mollborn, and Sennott 2010; Lee and McLanahan 2015) and the intergenerational transmission of family behaviors across race-ethnicity (Högnäs and Carlson 2012). Systemic and large-scale differences in the lives of minorities in the U.S. relative to their white counterparts, such as living in impoverished neighborhood, experiencing higher levels of incarceration, and differential access to educational and employment opportunities, likely have direct impacts of family behaviors and could weaken any intergenerational linkages among

Black and Hispanic parents and children. We cannot, unfortunately, account for macro influences on family behaviors.

Current Study

In this article, we test whether adolescent family complexity – indicated by the presence of half- and step-siblings – is associated with having a birth with a new partner (i.e., MPF) among Black and Hispanic young parents relative to White young parents. We account for a range of factors related MPF, including both family and individual socioeconomic characteristics, the context of births, and union status. We also consider whether the intergenerational transmission of family complexity differs across race-ethnic groups. This research adds to the body of work on race-ethnic differences in family behaviors as well as intergenerational transmission of family behaviors.

Methods

Data and Sample

We use data from the National Longitudinal Survey of Youth 1997 Cohort (NLSY97). The NLSY97 is a nationally representative panel study of 8,984 adolescents at wave 1 when respondents were 12-18 years old. Data were collected annually from 1997 to 2011 and biennially thereafter, current through 2015. The NLSY97 oversamples Black and Latino respondents. The sample and the oversample were collected through two, stratified, multistage area probability samples at the household level (Bureau of Labor Statistics 2016). The NLSY97 is well suited to address our research questions because of detailed birth and partnership histories that allow us to ascertain partner-specific births, a battery of indicators about family structure during childhood, and the oversample of Black and Latino respondents. One advantage of the NLSY97 in ascertaining MPF is its identification of the other parent for each child of a given respondent. Obtaining MPF in this way is less prone to error than using union and childbirth

histories to pinpoint the occurrence of MPF (Guzzo and Dorius 2016). We document how we arrive at our analytic sample of 462,147 person-months in appendix Table A1.

Analytic Approach and Dependent Variable

We use discrete-time event history models to examine how family structure and half- or step-siblings in adolescence are related to multipartner fertility. The dependent variable for the analysis has three categories: no birth, a birth with the same fertility partner, and a birth with a new fertility partner (i.e., MPF). We use multinomial logistic regression to predict the odds of a birth with a new partner versus the same partner (which is the reference category) in the next month. The results for experiencing "no birth" (versus a birth with the same partner) in the next month are not shown.

The unit of analysis is person-months. After a first birth, individuals are "at risk" of MPF. Individuals therefore enter the analysis when they have a first birth or at their eighteenth birthday, whichever occurs later. Individuals do not enter before age 18 in order to ensure temporal ordering between the independent variable (family structure and half- or step-siblings in adolescence) and the dependent variable. Individuals exit the analysis the month of a birth with a new fertility partner (i.e., experiencing MPF) or the month of their last interview if they do not have a birth with a new fertility partner. Following Lappegård and Thomson (2018), if an individual has a birth with the same fertility partner, that event is recorded, and that individual re-enters the analysis—because he or she is still at risk of having a child with a new partner and therefore experiencing MPF—but at higher parity.

We retain missing values on covariates using the *mi impute chained* command in STATA 14.2, using 5 imputations. We do not impute missing values for the dependent variable (von Hippel 2007) or the "family structure and siblings" variable, and there were no missing values

for race, gender, age, age at each birth, and education at each birth; however, we used these variables to inform the imputation. Per the NLSY1997 guidelines, we use the custom longitudinal weights when calculating descriptive statistics, but we do not weight regression analyses (National Longitudinal Surveys | Bureau of Labor Statistics n.d.).

Independent Variables

Race-Ethnicity. We capture race-ethnicity, our first key independent variable, with three categories: White, Black, and Hispanic. We do not disaggregate Hispanic by nativity because foreign-born Hispanics comprise only 3% of the full sample.

Family Structure and Siblings. Our second key independent variable, comprised of four categories, combines information on family structure through age 18 and the presence of half- or step-siblings during adolescence. These categories are: both biological parents, no half-or step-siblings; both biological parents, any half-or step-siblings; not both biological parents, no half- or step-siblings; not both biological parents, any half-or step-siblings.

Controls. We control for several sociodemographic characteristics that may otherwise confound our estimates. We control for: gender; respondent's mother's age at first birth; respondent's mother's education (measured as number of years of schooling completed); respondent's mother's parenting style (uninvolved, permissive, authoritarian, and authoritative); age (continuous and time-varying); income (continuous, measured as annual household income in the previous year, with a natural log transformation to account for its right skew); time-varying union status (never married, not cohabiting; never married, cohabiting; married; divorced, widowed, or separated); and program participation in the previous year, which includes Temporary Assistance for Needy Families (TANF)/Aid to Families with Dependent Children

(AFDC); Women, Infants, and Children (WIC); Supplemental Security Income (SSI); and non-cash assistance.

We also control for several indicators of birth circumstances linked in prior research to both MPF and race-ethnicity. Education at each birth is measured categorically as highest degree attained—no degree (reference), high school or GED, associate's, or bachelor's—as well as a dichotomous variable indicating whether the respondent was enrolled at the time of birth. Age at each birth is measured categorically given expected non-linear associations with MPF status: 17 and younger, 18-19, 20-22, 23-26, and 27 and older. Urbanicity is a dichotomous variable, measured only at first birth, where 1 indicates urban, and 0 indicates rural or other. Finally, we control for parity (1, 2, 3, or 4 or more) as individuals who have second- or higher-order births with the same fertility partner can go on to eventually have MPF through a birth with a new partner.

Because the NLSY did not sample in 2012 and 2014, some variables (i.e., income, program participation, and urbanicity) were not available during person-months at which individuals were at risk. For income in 2012, we averaged 2011 and 2013 income; for income in 2014, we averaged 2013 and 2015 income. For program participation and urbanicity, we coded individuals as 0 or 1 in the missing year if they had the same value in the surrounding years (e.g., if someone received program assistance in 2013 and 2015, we coded them as 1 for 2014). If the surrounding years disagreed, then we coded as missing and used multiple imputation to fill in that year. For income, program participation, and urbanicity, if a value surrounding 2012 or 2014 was missing, we used multiple imputation.

Results

Descriptive Statistics

Table 1 shows the weighted descriptive statistics for the imputed sample and by race. Beginning with the full weighted sample, 26% of parents have had children by multiple partners. About two-thirds (66%) of the parents are white, 18% are Black, and 16% are Hispanic. About third of respondents grew up in two-biological parent households with no half- or step-siblings (33%), and another third grew up in a non-two biological parent household with no half- or step-siblings (32%). Only 5% of respondents grew up with both their biological parents but also half- or step-siblings, whereas 29% of parents grew up in non-two biological parent households with half- or step-siblings. Union status varied greatly by race: over half of Blacks were never married and not currently cohabiting, compared with 21% of Hispanics and 15% of Whites. In contrast, 47% of Hispanics and 60% of Whites were married, compared to just 22% of Blacks. Seventy-four percent of the full sample had a high school degree as their highest level of education at any given birth.

Although 26% of individuals who appeared in our final analytic sample had MPF, this masks stark race-ethnic disparities in MPF: 43% of Blacks had MPF, in comparison to 28% of Hispanics and 20% of Whites. There are also strong racial differences in family structure. Half of Black parents came from non-two biological parent households with no half- or step-siblings, compared to just 31% of Hispanic parents and 28% of White parents. In contrast, only 10% of Blacks grew up in two-biological parent households with no half- or step-siblings, compared to 37% of Hispanics and 39% of Whites. It is not clear, however, how much the race-ethnic differences in family structure account for race-ethnic disparities in MPF. We address this question in the multivariate analyses.

Multivariate Results

Table 2 shows relative risk ratios from multinomial logistic regression predicting the risk of having a birth by a new partner (i.e., experiencing MPF) versus the same partner using discrete-time event history models. Because our focus is on MPF (i.e., a birth with a new partner), we omit results comparing "No Birth" to a birth with the same partner (available upon request). Beginning with race-ethnic differences in the risk of childbearing with a new partner versus a birth with the same partner—shown in Table 2, Model 1—results indicate that Hispanic and White men are 60% and 68% less likely than Blacks, respectively, to experience MPF. We also find (across all models) that Hispanics' and Whites' odds of MPF are not statistically different from one another (comparison not shown).

Turning to sociodemographic characteristics (Model 2), union status was associated with MPF: not surprisingly, those who are cohabiting (RRR=0.41) or married (RRR=0.15)—rather than never married and not cohabiting—are considerably less likely to have a birth with a new partner relative to a birth with the same partner, whereas those who are divorced, widowed, or separated were twice as likely (RRR=2.07) to experience MPF. Participating in any program assistance is associated with increased odds of MPF. Men, those whose mothers were older at first birth, and those with higher income were each at reduced odds of MPF; however, controlling for birth characteristics (Model 3) reduces the magnitude of these variables and, they are no longer statistically significant. Accounting for sociodemographic characteristics reduced the magnitude of the association by 38% for Hispanics and 47% for Whites.

In terms of characteristics at each birth, introduced in Model 3, having a bachelor's degree and an older age at first birth are each protective against MPF. MPF typically occurs early in the mother's and father's reproductive years, at parities two and three. Including these birth

characteristics did not attenuate or reduce the relationship between race and childbearing with a new partner.

Model 4 adds the key independent variable, family structure and sibling configuration, which, despite our expectation, only slightly reduced the observed race-ethnic disparity in MPF. Relative to living with both biological parents until age 18 and having no half- or step-siblings, those who spent any time in non-biological parent households have greater odds of MPF. A post-estimation test revealed that the presence of half- or step-siblings did not statistically differentiate those from non-two biological parent families (not shown). Similarly, those who lived with both biological parents, but had half- or step-siblings, are no more likely to have a birth with a new partner than those in the same family structure but with no half- or step-siblings. Taken together, then, these results suggest that family structure (i.e., whether one lived with both of their biological parents through age 18) is more predictive of MPF than is the presence of half- or step-siblings.

We also speculated that the effect of family structure and sibling configuration may work differently by race-ethnicity, as prior research suggests that family complexity is less consequential for some groups than for others. We empirically investigated this possibility in Table 3 by stratifying analyses by race-ethnicity. We estimated between-group differences (indicated in Table 3) using an interaction between race-ethnicity and family structure and siblings in Table 2, Model 4. Therefore, Models 5-7 in Table 3 control for all covariates. Consistent with Table 2, we find that Blacks are different from Hispanics and Whites in terms of MPF risk by family structure and sibling configuration. The results in Table 3 reveal that, among Blacks, family structure and half- or step-sibling configuration does not predict childbearing with a new partner. In contrast, Hispanics and Whites (relative to Blacks) are each at significantly

greater odds of a birth with a new partner if they lived in a non-both biological parent household. It may be that family structure and sibling configuration in adolescence does little to attenuate race-ethnic differences in MPF (the finding from Table 2, Model 4) because adolescent family complexity differentially affects the risk of adult MPF for Blacks than for Hispanics and Whites.

Discussion

We sought to investigate whether family complexity is transmitted across generations, and whether such a process may explain higher levels of multipartner fertility (MPF) among Blacks and Hispanics. This is an important question, particularly in the United States, where rac-ethnic differentials in family complexity are high (Manning, Brown, and Stykes 2014). Using the National Longitudinal Survey of Youth, 1997 cohort, we tested whether family complexity—which encompasses family structure (living with two biological parents until age 18) and the presence of half- or step-siblings—in adolescence predicts higher-order births with a new partner versus a prior partner, with a focus on race-ethnicity. Consistent with prior work, we found that Blacks are at much higher odds of MPF than are Whites and Hispanics but that accounting for family structure and sibling configuration in adolescence did little to attenuate this association. This may be attributable to variation in how family complexity is linked to adulthood across race-ethnic groups. We found that family complexity works differently by race-ethnicity: it does not increase the odds of childbearing with a new partner for Blacks, but it does for Whites and Hispanics. Our findings contribute to two broader lines of research.

First, we contribute to research on the intergenerational transmission of family behavior. In the case of a direct transmission of MPF, we find weak evidence of an association between half- or step-siblings in adolescence and MPF in adulthood in the United States. Instead, a disadvantageous family structure (i.e., not living with both biological parents until age 18)

increased one's risk of MPF. This finding contrasts a recent study that found a strong link between half-siblings in childhood and future MPF, net of family structure, in Norway and Sweden (Lappegård and Thomson 2018). There are several possible explanations for this difference in findings. Lappegård and Thomson have data on all childbearing years (16-45) while we have data on a cohort who are currently observed through ages 31-36. However, in order for this to differentiate our findings, the effect of half- or step-siblings would have to largely predict childbearing with a new partner in the late thirties and early forties. This seems unlikely since MPF tends to occur relatively early in one's childbearing career (mean age is 26 for women and 30 for men; Monte 2019). Alternately, in the United States—which tends to lack social policies to help disadvantaged families (Brady and Burroway 2012; Cohen 2015)—one's family structure in childhood may exert a stronger influence on future reproductive behaviors, like MPF, than it would in Norway or Sweden. Put differently, families that exist outside of the married two biological parent family are, overall, more disadvantaged than in other contexts, and so further considering the presence or absence of complex sibling ties may not further differentiate these families and thus adds little explanatory power. Still, our research demonstrates that behaviors in the family of origin do affect adult children's reproductive behaviors later in life, at least for some groups.

Second, we contribute to a body of research on race-ethnic disparities in family complexity. We find that accounting for family complexity does little to explain race-ethnic differences, plausibly because family complexity has differential effects on the risk of MPF across race-ethnicity. This trend also holds for the intergenerational transmission of nonmarital childbearing, such that Blacks were at increased risk of having a nonmarital birth regardless of childhood family structure (Högnäs and Carlson 2012). Why might the intergenerational

transmission of family complexity work differently by race-ethnicity? It is outside of the scope of our paper to empirically test what these might be, but past research provides some suggestions for future research. Högnäs and Carlson (2012) note that macro forces may be at play. For example, neighborhood quality accounts for two-thirds of racial disparities in nonmarital childbearing (South and Baumer 2001). Additionally, mass incarceration may play a role. Twenty-four percent of Black children (compared with 11% of Hispanic children and 4% of White children) experience parental incarceration (Turney and Goodsell 2018), and paternal incarceration increases one's chances of having a child by age 24 (Turney and Lanuza 2017). To the extent that early childbearing opens the door for MPF, parental incarceration may funnel Black young adults into family complexity through early births.

We also found that Hispanics and Whites were quite similar in their risk of multipartner fertility. In bivariate associations and including all controls, Hispanics and Whites were equally likely to have a birth with a new partner. The risk of MPF by family structure was also similar for Hispanics and Whites, as indicated by the interaction findings. These findings complicate the idea that Hispanics tend to fall in the middle of Blacks and Whites, e.g., in the case of non-marital childbearing (Sweeney and Raley 2014). Race-ethnic patterns may differ for family complexity and childbearing patterns in ways that warrant further study.

Our paper has several limitations. First, this sample has not completed childbearing. Although event history models are a solid method for dealing with individuals who will go on to experience an event (ref), we would ideally have complete data on childbearing. However, one advantage of the NLSY is that these data provide current and comprehensive data on a cohort's childbearing and family complexity patterns. A second limitation is that we were unable to account for the characteristics of half- or step-siblings. Lappegård and Thomson, for example,

find that younger half-siblings, rather than older half-siblings, predict future MPF. We also could not account for the duration of family complexity due to how and when the NLSY collected data on half- and step-siblings.

Conclusion

These limitations notwithstanding, we contribute to research on the intergenerational transmission of family behaviors and race-ethnic disparities in family complexity. We bridge these two literatures together by providing evidence that race-ethnicity moderates the intergenerational transmission of family complexity. Although family complexity has stalled in recent years (Manning, Brown, and Stykes 2014), future research should elucidate how the consequences of complex family structures and processes vary by race and ethnicity, particularly in the United States.

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Tables

Table 1. Weighted Descriptive Statistics (Mean or Proportion) for Imputed Analytic Sample and by Race

Variables	Full Sample	By Race		
		Black	Hispanic	White
Ever had multipartner fertility [1]	0.28	0.43	0.28	0.20
Race				
Black	0.18	1	0	0
Hispanic	0.16	0	1	0
White	0.66	0	0	1
Family Structure and Siblings				
Both Biological Parents, no Half- or Step-Siblings	0.33	0.10	0.37	0.39
Both Biological Parents, Half- or Step-Siblings	0.05	0.04	0.06	0.05
Not Both Biological Parents, no Half- or Step-Siblings	0.32	0.50	0.31	0.28
Not Both Biological Parents, Half- or Step-Siblings	0.29	0.36	0.26	0.28
Male	0.45	0.47	0.47	0.44
R's Mother's Age at First Birth	22.11	20.87	21.53	22.60
R's Mother's Education	12.29	12.18	10.34	12.79
R's Mother's Parenting Style				
Uninvolved	0.12	0.10	0.14	0.12
Permissive	0.36	0.31	0.34	0.38
Authoritarian	0.13	0.15	0.12	0.13
Authoritative	0.39	0.43	0.4	0.38
Age	27.08	26.18	26.52	27.46
Income (Natural Log)	10.44	9.65	10.36	10.69
Union Status				
Never Married, Not Cohabiting	0.23	0.54	0.21	0.15
Never Married, Cohabiting	0.18	0.19	0.25	0.16
Married	0.51	0.22	0.47	0.60
Divorced/Widowed/Separated	0.08	0.05	0.07	0.09
Any Program Assistance	0.30	0.38	0.35	0.27
Education at Birth				
No Degree	0.08	0.11	0.09	0.06
HS/GED	0.74	0.79	0.82	0.71
Associate's	0.05	0.02	0.03	0.06
Bachelor's+	0.13	0.07	0.06	0.17

Enrolled at Birth	0.12	0.19	0.12	0.11
Age at Birth				
< 18	0.06	0.11	0.07	0.05
18-19	0.13	0.17	0.14	0.11
20-22	0.24	0.29	0.28	0.21
23-26	0.31	0.3	0.32	0.31
> 26	0.26	0.14	0.19	0.31
Urbanicity	0.72	0.82	0.87	0.66
Parity				
1	0.62	0.69	0.57	0.61
2	0.28	0.22	0.29	0.29
3	0.08	0.06	0.11	0.08
4+	0.02	0.03	0.03	0.02
Person-Months [2]	462,147	136,443	119,067	206,637

Notes: Some proportions do not sum to 1 due to rounding. 1: Calculated from individual file, not person-month file. 2: Person-Month sample size not weighted.

Table 2. Relative Risk Ratios from Multinomial Logistic Regression showing Odds of Birth with New Partner (ref: Same Partner).

Variables	Model 1	Model 2	Model 3	Model 4
Race				
Black	ref.	ref.	ref.	ref.
Hispanic	0.40***	0.63***	0.63***	0.67***
	(0.033)	(0.057)	(0.057)	(0.062)
White	0.32***	0.64***	0.68***	0.71***
	(0.023)	(0.052)	(0.056)	(0.059)
Family Structure and Siblings				
Both biological parents, no half- or step-siblings				ref.
Both bio parents, half- or step-siblings				1.06
				(0.175)
Not both bio parents, no half- or step-siblings				1.28**
				(0.115)
Not both bio parents, half- or step-siblings				1.47***
				(0.136)
Male		0.84**	0.89	0.90
		(0.056)	(0.061)	(0.061)
R's Mother's Age at First Birth		0.98*	0.99	0.99
		(0.007)	(0.007)	(0.007)
R's Mother's Education		0.98	1.00	1.00
		(0.013)	(0.014)	(0.014)
R's Mother's Parenting Style				
Uninvolved		ref.	ref.	ref.
Permissive		0.87	0.95	0.97
		(0.090)	(0.100)	(0.102)
Authoritarian		1.10	1.13	1.12
		(0.135)	(0.139)	(0.137)
Authoritative		0.97	1.06	1.08
		(0.099)	(0.109)	(0.111)
Age		0.98*	1.07***	1.06***
		(0.008)	(0.011)	(0.010)
Income (Natural Log)		0.96*	0.99	1.00
		(0.018)	(0.019)	(0.020)
Union Status				
Never Married, Not Cohabiting		ref.	ref.	ref.

Never Married, Cohabiting		0.41***	0.46***	0.45***
		(0.039)	(0.044)	(0.043)
Married		0.15***	0.19***	0.19***
		(0.014)	(0.019)	(0.019)
Divorced/Widowed/Separated		2.07***	2.00***	2.02***
		(0.354)	(0.344)	(0.347)
Any Program Assistance		1.30***	1.29***	1.28***
		(0.091)	(0.093)	(0.092)
Education at Birth				
No Degree			ref.	ref.
HS/GED			0.92	0.94
			(0.096)	(0.098)
Associate's			0.65	0.69
			(0.154)	(0.164)
Bachelor's+			0.28***	0.30***
			(0.064)	(0.070)
Enrolled at Birth			1.08	1.09
			(0.098)	(0.099)
Age at Birth				
< 18			ref.	ref.
18-19			0.72**	0.73*
			(0.087)	(0.089)
20-22			0.49***	0.51***
			(0.061)	(0.063)
23-26			0.25***	0.26***
			(0.035)	(0.037)
> 26			0.17***	0.18***
			(0.031)	(0.033)
Urbanicity			0.95	0.95
			(0.077)	(0.077)
Parity				
1			ref.	ref.
2			1.47***	1.45***
			(0.118)	(0.117)
3			1.49**	1.48**
			(0.225)	(0.224)
4+			0.95	0.93
			(0.310)	(0.303)
Constant	0.91	8.20***	0.85	0.58
	(0.048)	(2.832)	(0.343)	(0.243)
Person-Months	462,147	462,147	462,147	462,147

Notes: Standard Errors in Parentheses. Output for the outcome "No Birth" from the dependent variable not shown. Ref. = reference category. * p <.05; ** p < .01; *** p < .001

Table 3. Relative Risk Ratios from Multinomial Logistic Regression showing Odds of Birth with New Partner (ref: Same Partner) by Race and Family Structure-Sibling Configuration.

Variables	Model 5 Black	Model 6 Hispanic	Model 7 White
Family Structure and Siblings			
Both bio parents, no half- or step-siblings	ref.	ref.	ref.
Both bio parents, half- or step-siblings	1.14	1.15	0.83
	(0.412)	(0.340)	(0.225)
Not both bio parents, no half- or step-siblings	0.78 [h, w]	1.56** [b]	1.22 [b]
	(0.156)	(0.260)	(0.171)
Not both bio parents, half- or step-siblings	0.95 [h, w]	1.51* [b]	1.47** [b]
	(0.193)	(0.266)	(0.207)
Constant	0.20*	0.18*	1.20
	(0.143)	(0.138)	(0.890)
Person-Months	136,443	119,067	206,637

Notes: Output for the outcome "No Birth" from the dependent variable not shown.
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. [b] indicates significantly different from Black; [h] indicates significantly different from Hispanic; [w] indicates significantly different from White.
All models control for the following: gender, respondent's mother's age at first birth, respondent's mother's education, respondent's mother's parenting style, age, income (natural log), union status, any program assistance, age at each birth, education at each birth, enrollment at each birth, urbanicity at first birth, and parity.

Appendix

Table A1. Arriving at the Analytic Sample of 462,147 person-months.

Remaining Sample	Number Dropped/Added	Why Dropped/Added?	How many remain?
8,984 individuals to start	83 dropped	Race marked as mixed/other	8,901 individuals
8,901 individuals	3,500 dropped	Never had a birth, so individual is not at risk of MPF.	5,401 individuals
5,401 individuals	22 dropped	Missing on variable that combines family structure and half- or step-siblings.	5,379 individuals
5,379 individuals	18 dropped	Duration between any two births was negative, suggesting illogical dates.	5,361 individuals
5,361 individuals	We used the duration between each birth in months and the "expand" command in STATA to generate a person-month file, where an individual is observed from the month of their first birth until their last interview.		626,867 person-months
626,867 person-months	154,162 dropped	We stop observing individuals after they experience MPF.	472,705 person-months
472,705 person-months	10,558 dropped	We drop all person-months in which individuals are younger than 18 because we begin observing individuals on their eighteenth birthday to ensure temporal ordering between family structure and siblings in adolescence and subsequent MPF.	462,147 person-months