Factors Associated with the Transition to Multiple Partner Fertility Among Young Unmarried Parents

Jennifer Manlove, Mindy Scott, Erum Ikramullah, and Kristen Peterson
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Overview of the Study

High rates of marital dissolution in the United States, combined with long-term increases in childbearing outside of marriage, have led to the occurrence of multiple-partner fertility, or having biological children with more than one partner. Multiple-partner fertility is especially prevalent among young, unmarried parents in recent cohorts and is associated with negative outcomes for parents and children. However, until recently, limited research has assessed the prevalence and correlates of multiple-partner fertility. This paper uses data from a recent nationally representative, longitudinal survey to examine the prevalence and correlates of multiple-partner fertility among a recent cohort of teen and young adult unmarried parents. We focus on three research questions: 1) What family and individual socio-demographic factors are associated with the transition to multiple-partner fertility?; 2) Are characteristics of the union and first birth associated with the odds of transitioning to multiple-partner fertility?; and 3) Do the factors associated with the transition to multiple-partner fertility differ for mothers and fathers? To answer these questions, we use both time-invariant and time-varying measures in discrete-time event history analyses.

Conceptual Framework and Prior Research

Our analyses are informed by the *life course* perspective, which provides a framework for assessing factors associated with having children with multiple partners. One principal of the life course perspective is that life transitions can only be understood within the broader social context in which a person lives. Therefore, we examine whether and how relationship and fertility patterns are shaped by broader individual and family background environments. Another life course principal is that life transitions, such as having a child with another partner, can be understood only within the context of the social relationships in which a person is involved (Elder, 1999). Therefore, we posit that multiple-partner fertility will be influenced not only by individual and family environments, but also by characteristics of the union with the first birth partner. A life course perspective also posits that the relative timing and sequencing of multiple aspects of parenthood, such as first and subsequent births with children, are central to subsequent fertility behaviors, as well as recognizing the heterogeneity in the life experiences of sub-populations, such as by gender (for mothers and fathers).

Estimates suggest that as many as 8 percent of US men (18-44) (Guzzo & Furstenberg, 2007a; Logan, Manlove, Ikramullah, & Cottingham, 2006) and 3 percent of young women (19-25) (Guzzo & Furstenberg, 2007b) have experienced multiple-partner fertility, and these percentages increase among young and unmarried parents in recent cohorts of minority groups (Carlson & Furstenberg, 2006; Guzzo & Furstenberg, 2007a, 2007b). Understanding factors associated with multiple-partner fertility -- specifically the transition to multiple-partner fertility

-- is important because of its potentially negative consequences for men, women, and children (Bramlett & Mosher, 2002; Waite, 1999; Waller, 2002; Willis, 1999), and accordingly, most research has focused primarily on prevalence and consequences of multiple-partner fertility (for exceptions, see Carlson & Furstenberg, 2006; Guzzo & Furstenberg, 2007a; Manlove, Logan, Ikramullah, & Holcombe, 2008; Mincy, 2001). Individual factors such as race/ethnicity (Carlson & Furstenberg, 2006; Mincy, 2001), educational levels (Carlson & Furstenberg, 2006; Guzzo & Furstenberg, 2007a; Mincy, 2001), economic status (Guzzo & Furstenberg, 2006, 2007a), and a history of incarceration (Carlson & Furstenberg, 2006; Logan et al., 2006) are all associated with multiple-partner fertility.

Research on relationship context finds that those whose first birth occurs within a union (either marriage or cohabitation) are less likely to experience subsequent births with a different partner (Carlson & Furstenberg, 2006; Guzzo & Furstenberg, 2007a, 2007b; Manlove et al., 2008) but there are gaps in the literature as to whether union status at birth has a different association with multiple-partner fertility for mothers versus fathers. Fathers are more likely than mothers to live apart from children from a previous partner (Carlson & Furstenberg, 2006; Carlson & Furstenberg, 2005), which may affect their likelihood of transitioning to multiple-partner fertility. For example, several studies find that a father's previous childbearing history affects the probability of his future coresidential relationships (Bernhardt & Goldscheider, 2001; Carlson & Furstenberg, 2007; Carlson, McLanahan, & England, 2004) to a greater extent than a mother's childbearing history (Carlson & Furstenberg, 2007; Carlson et al., 2004). Thus, we plan to explore gender differences in the association between relationship characteristics, as well as family, individual and characteristics of the birth, and multiple-partner fertility.

Data and Research Methods

This study analyzes data from the National Longitudinal Survey of Youth, 1997 Cohort (NLSY97), Rounds 1 – 11 (1997 – 2007). The NLSY97 provide valuable information on respondents' union and fertility history, sexual partners, family background factors, and demographic characteristics. Youth were initially interviewed at ages 12-16 in 1997, and we include annual follow-up data through 2007 when they were ages 22-26. The NLSY97 sample included 1,297 men and 1,885 women who became parents by Round 11. We restricted our analyses to 920 men and 1,350 women who were unmarried at the time of their first biological child's birth. We removed 27 fathers and 19 mothers with missing or incomplete data on the dependent variable for final samples of 893 fathers and 1,331 mothers at risk for multiple partner fertility.

The dependent variable of interest in this study is the occurrence and timing of first multiple partner fertility. Multiple partner fertility was measured using identification numbers assigned to the other parent of each of the respondent's children. To organize data measuring characteristics of the other parents of respondents' children, the NLSY97 data staff pulled relevant variables from the marriage, cohabitation, and fertility sections of the survey (where respondents are asked about children and their other parents) into an "other parents" roster. This roster included an identification number for each parent as well as characteristics of each other parent including race/ethnicity, education, and employment. If a respondent was assigned more than one "other parent" id number and had two or more children, they were coded as having experienced multiple partner fertility. In order to capture the timing of multiple partner fertility, we first assigned each of the respondent's children into their round, or survey year, of birth (i.e.

Round 2=1998, Round3=1999, etc…). Next, we looked at the other parent identification number of each child, and thus were able to determine which child was respondent's first multiple partner fertility birth. Finally, for each survey year in which respondents were at risk of multiple partner fertility, we coded them as a 0 if they did not experience multiple-partner fertility and 1 if they did.

We examine several individual characteristics in our models. All background characteristics were measured at baseline or at the round of the first birth. Time-varying characteristics were measured between the round of the birth and up to the last round before the respondent was censored, either because they experienced multiple-partner fertility or because they reached the end of the study period without a birth. Individual characteristics include race/ethnicity (measured at baseline), a reported history of arrest and gang involvement (measured at the round of first birth), and time-varying measures of employment/enrollment status, educational attainment, and substance abuse. Family background factors include family structure, parent education, and parent religious attendance all measured at baseline. Characteristics of the unions and birth include union status at first birth (comparing unmarried parents in and outside of cohabiting relationships), age at first birth, a time-varying measure of the number of children with other parent of first child, and child's gender. Finally, we examined several characteristics of the other parent including their age, employment/enrollment status, educational attainment, and race/ethnicity.

To model the transition to first multiple-partner fertility, we created a person-year file containing multiple observations for each unmarried parent - one observation for each year in which a respondent was at risk of transitioning to multiple-partner fertility. The final analysis file contained 5456 person-years of data for mothers and 3516 person-years of data for fathers. For the descriptive analyses, we conducted chi-square and t-test analyses. For the multivariate analyses, discrete time event history models modeling the transition to multiple-partner fertility were estimated in Stata using logistic regression on our person-year data

Preliminary Results

Descriptive Findings

Table 1 shows sample characteristics of unmarried mothers and fathers who had a birth in adolescence and young adulthood. The characteristics presented in this table reflect the disadvantaged nature of young, unmarried parents, as well as their high rates of multiple-partner fertility. Almost one third of unmarried mothers transitioned to multiple-partner fertility by Round 11 (2007), compared with almost one in five unmarried fathers. Around half of unmarried mothers and fathers in the sample were white (with about one-quarter African-American and 16-19% Hispanic), and sample members completed less than a high school education (11^{th} grade, on average). Unmarried fathers were more likely than mothers to be employed or enrolled in an educational institution. Nearly one-third of unmarried mothers and more than half of unmarried fathers engaged in substance abuse. Twelve percent of unmarried mothers and 28 percent of unmarried fathers had ever been arrested before the birth of their first child and about one quarter of mothers and slightly more than half of fathers had ever been in a gang before having their first child. Only about one-third of mothers and fathers lived with two biological or adoptive parents at baseline, reflecting the disadvantaged status of this sample.

The majority of unmarried mothers and fathers had their first child outside of a union (61 percent of mothers and 57 percent of fathers). About one-quarter of mothers and fathers had

two or more children with the other parent of their first child within the study period, and mothers tended to be younger than fathers at their first birth (19.2 years old, compared with 19.9 years old).

Unmarried mothers tended to have children with older partners (average age 22.4 years old) while the partners of unmarried fathers in our sample were more similar in age (19.8 years old). The partners of unmarried mothers in this project were more likely to be employed or enrolled (83 percent) compared with the partners of unmarried fathers (69 percent), and both tended to have partners who had completed high school (on average).

Multivariate Findings

Table 2 shows findings from discrete-time event history analyses predicting the transition to multiple-partner fertility among unmarried mothers. We find that mothers who were employed or enrolled or who engaged in substance abuse had lower odds of multiple-partner fertility, whereas mothers who were ever arrested or in a gang before the birth of their first child had increased odds of multiple-partner fertility. Additionally, cohabiting at first birth, and having additional children with the father of their first child, and being older at firth birth were all associated with reduced odds of multiple-partner fertility, whereas an older age of first child was associated with increased odds. Finally, unmarried mothers whose first child's other parent was older had increased odds of multiple-partner fertility whereas women whose first child's other parent was employed or enrolled had reduced odds of having another child with a different partner.

We found fewer significant correlates of multiple-partner fertility for unmarried fathers. Fathers who were ever in a gang before the birth of their first child had increased odds of multiple-partner fertility whereas fathers whose parents completed some college or more education and fathers who were cohabiting at the time of their first birth had reduced odds of transitioning to multiple-partner fertility. These findings may reflect the smaller number of unmarried fathers in our sample, and thus the reduced power of these analyses. Alternatively, because men are less likely to co-reside with their children over time, men's fertility behaviors may be less driven by characteristics of the union and birth than mothers have been.

Next Steps

Next steps for this paper include finalizing our specifications of our variables (e.g., teasing out the high rates of substance abuse to contrast binge drinking and drug use), testing interaction effects by gender, and examining issues related to sample selection by comparing characteristics of our sample with those who were not included because they had either 1) had a birth within marriage or 2) had not yet had a birth within the time period of this study. We will also discuss our findings in the context of previous research on this topic.

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Table 1. Characteristics of unmarried mothers and fathers, NLSY97 1997 - 2007

	Mothers	Fathers	
Multiple partner fertility~	31.6%	18.8%	***
Individual characteristics			
Race/ethnicity			**
White/other	57.4%	50.1%	
Black	26.9%	30.9%	
Hispanic	15.7%	19.1%	
Education~	11.3	11.1	
R is employed/enrolled~	61.7%	74.9%	***
Substance abuse~	31.1%	56.9%	***
Ever been arrested (before birth of 1st child)	11.8%	28.0%	***
Ever been in a gang (before birth of 1st child)	24.9%	54.6%	***
Family characteristics			
R lived with two biological/adoptive parents	33.5%	37.4%	
Parent education			
Less than high school	23.1%	25.9%	
High school / GED	38.2%	39.7%	
Some college or more	38.7%	34.4%	
Family religious attendance	2.7	2.7	
Characteristics of the union and birth			
Marital/cohabitation status at 1st birth			
Cohabiting	39.4%	43.4%	
Number of births with first other parent			
1	75.5%	75.7%	
2+	24.6%	24.3%	
Age at first birth	19.2	19.9	***
Child is male	51.7%	48.7%	
Characteristics of 1st child's parent			
Other parent's age	22.4	19.8	***
Other parent is employed/enrolled	82.5%	69.1%	***
Other parent education	12.0	12.1	
Other parent race/ethnicity			
White/other	48.7%	54.9%	
Black	31.1%	26.6%	
Hispanic	20.2%	18.5%	
N (person years)**=**	1331	893	

+$p<.10$; *$p<.05$; **$p<.01$; ***$p<.001$

~Measure is time-varying

Table 2. Discrete time event history analyses modeling the transition to multiple partner fertility, among unmarried mothers and fathers, NLSY97 1997 - 2007

	Mothers		Fathers	
Individual characteristics				
Race/ethnicity				
White/other	(1.00)		(1.00)	
Black	0.76		1.71	
Hispanic	0.84		1.42	
Education	0.96		0.97	
R is employed/enrolled	0.66	**	1.02	
Substance abuse	0.51	***	1.03	
Ever been arrested (before birth of 1st child)	1.64	**	1.44	
Ever been in a gang (before birth of 1st child)	1.64	**	1.54	*
Family characteristics				
R lived with two biological/adoptive parents	1.09		0.73	
Parent education				
Less than high school	1.67		1.08	
High school / GED	(1.00)		(1.00)	
Some college or more	0.83		0.61	*
Family religious attendance	1.01		1.05	
Characteristics of the union and birth				
Cohabiting at 1st birth	0.59	**	0.54	*
Number of births with first other parent	0.40	***	1.07	
Age at first birth	0.81	***	0.98	
Child's age	1.02	***	1.01	
Child is male	1.01		1.10	
Characteristics of 1st child's parent				
Other parent's age	1.05	**	1.04	
Other parent is employed/enrolled	0.71	*	0.76	
Other parent education	0.98		0.95	
Other parent race/ethnicity				
White/Other	(1.00)		(1.00)	
Black	1.46		0.63	
Hispanic	1.16		0.75	
N=	5456		3516	
F(DF)=	8.07(21)	***	2.41(21)	***

*p< .05; **p< .01; ***p <.001