Partnership Instability During Pregnancy and Prenatal Health: The Moderating Role of Social Support

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Background and Theoretical Perspectives

More than two out of five children are born to unmarried parents, and this number is much higher among parents who are younger, race or ethnic minorities, or who have lower levels of education. Across all unmarried parents, relationship instability during pregnancy is very common; indeed more than 30 percent of unmarried parents break up at least once during their pregnancy (Osborne et al., 2013).

Although the effect of partnership instability on young children and adolescents' wellbeing has been studied quite extensively, to our knowledge, no research has examined instability during the pregnancy period and how it is associated with health outcomes for the mother and child. Research has shown that the mother-father relationship is associated with low birthweight (Padilla and Reichman 2001) and perinatal health behaviors, such as breastfeeding (Mitchell-Box and Braun, 2013), but no research has focused on partnership instability and its effects.

Partnership instability during the pregnancy may lead to reductions in paternal financial and emotional support, as well as concomitant increases in stress, which may lead to negative prenatal health outcomes for the mother and in turn, poor perinatal outcomes for the child.

The financial strain and emotional stress that may result from partnership instability may be reduced, however, if the mother has a strong support network to rely upon. For instance, the mother's family may intervene and provide the expectant mother with a place to live or material resources. Although it may be less common, support from the expectant father's family may also reduce the stress and strain on the expectant mother and diminish the negative effects of partnership instability.

It is important, however, to account for potential selection effects; the factors that may increase the likelihood of partnership instability may also increase the likelihood of poorer maternal and child health (e.g. substance abuse), thus it may not be the instability itself that affects the health outcomes. Moreover, mothers who receive support from their family or the father's family may receive that support because of poor maternal health outcomes.

Research Questions

This paper uses data from a new birth cohort study of Texas families who had a nonmarital birth in January 2013. We ask three primary research questions: (1) To what extent do paternal and maternal risk factors, such as substance abuse, domestic violence, unemployment, and lack of pregnancy planning or desire predict partnership instability during pregnancy? (2) Is prenatal partnership instability associated with serious maternal health complications during the pregnancy and serious health problems for the child at birth; and (3) Does maternal or paternal kin support during pregnancy moderate the association between partnership instability and poor health outcomes?

Data

We use data from the Paternity Establishment Study (PES) which is a representative sample (N=807) of all nonmarital births in Texas in January 2013. PES data were collected via phone and online survey by the Child and Family Research Partnership at the University of Texas at Austin. Surveys were collected from the mothers (and some fathers) when the newborn was approximately 3 months old. Mothers associated with fathers who did not establish paternity at the child's birth were oversampled, but weights applied to the sample make it representative of all nonmarital births in Texas.

The purpose of the study is to better understand the role of unmarried fathers in their children's life. Although Texas families are not representative of all U.S. families, the demographic characteristics of the population in Texas portend what the U.S. will be experiencing in the coming decades, thus the state provides an interesting glance into the possible future.

Measures

The dependent variables are dichotomized to measure maternal prenatal health and health outcomes for the newborn. Mothers were asked to indicated whether she "experienced any serious health complications" during her pregnancy. Additionally, mothers were asked whether her child has "any serious health complications now."

The primary independent variable is a dichotomous measure of prenatal partnership instability. Mothers were asked whether she and the baby's father broke up during the pregnancy. X percent of mothers reported breaking up during the pregnancy, and X percent of these mothers reported that she and the child's father were back together at the child's birth. Prenatal instability is highly correlated with the father questioning whether the child is his child and domestic violence.

We interact prenatal partnership instability with paternal and maternal kin support. Mothers were asked whether she received support across several domains from her family or her child's father's family during pregnancy. We created a separate index of maternal kin support and paternal kin support based on responses of received support including: financial support or

money, a place to live, in-kind support such as clothes or food, help with transportation or chores, and emotional support. In subsequent drafts of the paper, we will explore whether the type of the support received matters. We recognize that receipt of support may be preconditioned on need of support, and try to control for this by controlling for several characteristics of the mother including age, education level, race/ethnicity, pregnancy planning, prenatal care, and WIC receipt.

Preliminary Results

Prenatal Partnership Instability

We find that prenatal partnership instability is not associated with demographic characteristics such as age and race and ethnicity, but rather it is strongly associated with relationship factors including whether the couple knew each other for less than six months prior to getting pregnant, the father questioned if the child was his, and domestic violence.

Maternal Prenatal Health

The results also suggest that there is a strong association between prenatal partnership instability and maternal health during the pregnancy. The odds of serious maternal prenatal health complications are more 69 percent higher for mothers who experience a breakup during pregnancy. Interestingly, the association between instability and maternal health is not attenuated by maternal demographic characteristics.

Models 3 and 4 in the third table show that paternal kin support moderates the effect of prenatal partnership instability, whereas maternal kin support does not. The interaction on support from the child's father's family is marginally significant (p=.069), but the coefficient suggests that support from "in-laws" reduces the negative impact of the partnership breakup. Interestingly, mothers who receive support from their own family have higher odds of serious health problems during pregnancy, although it is probable that the mother is receiving support because of the health problems. Model 5 measures perceived social support at child age 3 months, and it is not associated with maternal prenatal health problems.

Newborn Health

The results in the fourth table show that prenatal instability is strongly associated with serious health problems in newborns. Again, the results suggest that this association is not attenuated by maternal demographic characteristics. The results are similar to the findings for maternal prenatal health, in that paternal kin support seems to moderate the negative effects of prenatal instability, whereas maternal kin support or perceived support do not. The interaction between paternal kin support and instability is not statistically significant, however.

Discussion

Approximately 30 percent of unmarried Texas parents experience a break up during their pregnancy. These relationships moved quickly to pregnancy, are often unplanned and questioned, and are often rife with violence. This paper explores how the instability mothers experience during pregnancy is associated with poor health outcomes for her and her child, and whether support from her largely family network helps to minimize this negative effect.

We find a strong association between prenatal partnership instability and serious health problems for the mother and newborn. Moreover, support from the child's father's family, rather than the maternal family network, helps to reduce the negative influence of the parents' breakup.

This study is in the preliminary stages and more attention will be paid to adequate control measures to account for why the parents may break up and how this may be associated with prenatal health. Still, the findings have important implications for our understanding of family instability and the influence that environmental factors may have on pregnancy health outcomes.

References

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Mother Characteristics	Proportion
Broke up during pregnancy	31%
Mother receives WIC	79%
Mother's Race	
White	26.1%
Hispanic	55.6%
African American	13.6%
Asian	1.4%
Native American	1.4%
Other	1.9%
Mother's Education	
No formal schooling	0.3%
1-8 years	3.5%
9-12 years	15.1%
High school graduate (or equivalent)	30.4%
Some college	34.0%
Associate’s degree (including occupational or academic degree)	7.1%
Bachelor’s degree (BA, BS, AB, etc.) or higher	9.7%

	(1) brokeuppreg	(2) brokeuppreg	(3) brokeuppreg
brokeuppreg			
momage		**1.007**	**1.006**
		(0.680)	(0.725)
hispanic		**0.630***	**0.788**
		(0.025)	(0.313)
black		**1.526**	**1.285**
		(0.113)	(0.446)
other		**0.346***	**0.341***
		(0.036)	(0.032)
mlessthanhs		**1.259**	**1.405**
		(0.299)	(0.168)
wic		**1.059**	**1.056**
		(0.801)	(0.827)
noknew			**2.046****
			(0.003)
dadquestio~d			**4.404*****
			(0.000)
risk_abuse			**5.681*****
			(0.000)
_cons	**0.442*****	**0.427**	**0.156*****
	(0.000)	(0.087)	(0.001)
N	659	659	658

Exponentiated coefficients; p-values in parentheses
* p<0.05, ** p<0.01, *** p<0.001

pregproblem	(1)	(2)	(3)	(4)	(5)
brokeuppreg	**1.692***	**1.664***	**2.149****	**0.740**	**1.257**
	(0.010)	(0.016)	(0.002)	(0.516)	(0.510)
momage		**1.036**	**1.038**	**1.049***	**1.036**
		(0.057)	(0.052)	(0.011)	(0.053)
hispanic		**1.033**	**1.015**	**1.050**	**1.037**
		(0.899)	(0.953)	(0.849)	(0.887)
black		**1.441**	**1.421**	**1.534**	**1.437**
		(0.247)	(0.269)	(0.184)	(0.255)
other		**1.720**	**1.683**	**1.702**	**1.725**
		(0.243)	(0.253)	(0.257)	(0.243)
mlessthanhs		**1.075**	**1.108**	**1.170**	**1.068**
		(0.774)	(0.686)	(0.540)	(0.796)
wic		**1.146**	**1.139**	**1.089**	**1.129**
		(0.594)	(0.611)	(0.737)	(0.636)
inlawsspt			**1.451**		
			(0.151)		
brokeupxinlaw			**0.365**		
			(0.069)		
famsspt_bin				**1.391**	
				(0.234)	
brokeupxfamspt				**2.688**	
				(0.058)	
sspt_bin					**0.749**
					(0.277)
sspt_binxbrokeup					**1.533**
					(0.318)
_cons	**0.207*****	**0.0689*****	**0.0566*****	**0.0405*****	**0.0836*****
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	659	659	659	659	659

Exponentiated coefficients; p-values in parentheses
* p<0.05, ** p<0.01, *** p<0.001

childhealth	(1)	(2)	(3)	(4)	(5)
brokeuppreg	**2.622***	**2.681***	**3.545****	**1.316**	**2.404**
	(0.012)	(0.015)	(0.007)	(0.700)	(0.164)
momage		**1.097****	**1.096***	**1.099****	**1.097****
		(0.006)	(0.011)	(0.006)	(0.006)
hispanic		**1.209**	**1.196**	**1.266**	**1.205**
		(0.699)	(0.717)	(0.636)	(0.703)
black		**1.260**	**1.274**	**1.391**	**1.235**
		(0.731)	(0.718)	(0.633)	(0.755)
other		**1.037**	**0.998**	**1.043**	**1.055**
		(0.974)	(0.998)	(0.970)	(0.962)
mlessthanhs		**2.980****	**3.105****	**3.116****	**2.947****
		(0.006)	(0.004)	(0.005)	(0.007)
wic		**.**	**2.046**	**1.873**	**1.960**
		.	(0.192)	(0.236)	(0.194)
inlawsspt_~n			**1.491**		
			(0.487)		
brokeupxin~t			**0.222**		
			(0.221)		
famsspt_bin				**0.822**	
				(0.724)	
brokeupxfa~t				**2.786**	
				(0.236)	
sspt_bin					**0.801**
					(0.692)
sspt_binxb~p					**1.166**
					(0.848)
_cons	**0.0315*****	**0.00100*****	**0.000856*****	**0.00105*****	**0.00117*****
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	658	658	658	658	658

Exponentiated coefficients; p-values in parentheses
* p<0.05, ** p<0.01, *** p<0.001