Consequences and Correlates of Pregnancy Scares among Young Women:
Preliminary Results

Heather H. Gatny
University of Michigan

Yasamin Kusunoki
University of Michigan

Jennifer S. Barber
University of Michigan

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CONTEXT: *A relatively large number of young women report pregnancy scares during the transition to adulthood. However, there is little existing research on pregnancy scares, even though they are likely to be important to our understanding of unintended pregnancy among young women.*

METHODS: *A 60-minute face-to-face baseline survey interview was conducted between March 2008 and July 2009 among a population-based sample of 1,003 young women. The interview assessed important aspects of family background; demographic information; key attitudes, values, and beliefs; current and past friendship and romantic relationships; education; and career trajectories. At the conclusion of this baseline interview, all respondents were invited to participate in a weekly journal-based study – a mixed mode (Internet and phone) survey for 2.5 years. Chi-square tests and regression analyses were conducted to test for relationships between sociodemographic characteristics and early pregnancy-related experiences and pregnancy scare. Event history methods were used to assess pregnancy scare as a predictor to model the risk of unintended pregnancy.*

RESULTS: *Some of the same sociodemographic characteristics that are associated with unintended pregnancy including race, living with a partner, and school enrollment are also associated with pregnancy scare. Early pregnancy-related experiences that lead to unintended pregnancy, however, do not lead to pregnancy scare. In addition, pregnancy scare is an important predictor of unintended pregnancy independent of these factors.*

CONCLUSIONS: *Pregnancy scare may be an important and tangible marker that health care providers could use in a clinical setting to identify women at high risk of an unintended pregnancy.*

Unintended pregnancy rates are high in the United States. The most recent national estimates indicated that approximately 49% of all pregnancies are unintended (Finer and Henshaw 2006). The consequences of unintended pregnancy for young women are serious and wide-reaching – including abortion, curtailed educational attainment, and later-life health problems (Casterline and el-Zeini 2007; Geronimus and Korenman 1992; Hardy et al. 1998; Kost et al. 2010; Ventura et al. 2008). In fact, the high rates of unintended pregnancy are a major health and public policy concern, even if they have no causal consequences, because the occurrence of pregnancies to women who do not want them is itself a negative health outcome. Hence current U.S. policies call for its reduction – proposed Healthy People 2020 goals include increasing the proportion of pregnancies that are intended, virtually the same goal as in Healthy People 2010.

A more comprehensive scientific understanding of unintended pregnancy is essential to the formulation of programs and related policies aimed at reducing it (Casterline and Sinding 2000). Accordingly, there are many questions that social science must answer. One of the most important of these questions is: how can we identify women at high risk of unintended pregnancy to provide them the help they need to avoid pregnancy?

In this paper we investigate a new phenomenon ∟ "pregnancy scares" ∟ which may help social scientists to answer the question above. A pregnancy scare is when a woman who wants to avoid pregnancy believes she is pregnant, but later learns that she was not really pregnant. We find that a relatively large number of young women report pregnancy scares during the transition to adulthood. These pregnancy scares often precede the report of a confirmed pregnancy. And some women experience multiple pregnancy scares before an actual pregnancy occurs. There is little, if any, existing research on pregnancy scares, and they are likely to be important to our understanding of unintended pregnancy among young women.

There are several reasons that women who experience pregnancy scares might be at a higher risk of unintended pregnancy. First, the same characteristics associated with unintended pregnancy are also likely to be associated with pregnancy scares, including race and school enrollment. Second, the same pregnancy-related experiences that lead to unintended pregnancy, such as number of sexual partners and prior pregnancies, are also likely to lead to pregnancy scares. Third, because characteristics and experiences that are known to be associated with unintended pregnancy are also likely to be associated with pregnancy scares, other *unknown* or *immeasurable* factors associated with unintended pregnancy are likely to be captured by pregnancy scares as well. Thus, pregnancy scares may be an important, easily identified predictor of unintended pregnancy, independent of the relatively well-established relationships currently documented in the literature.

In this paper, we describe the characteristics of women who experience a pregnancy scare and we investigate the relationship between pregnancy scares and unintended pregnancy. First, we examine the relationship between sociodemographic characteristics and early pregnancy-related experiences on the one hand, and the experience of a pregnancy scare on the other hand. Second, we use these characteristics to predict the experience of any pregnancy scare as well as the number of pregnancy scares experienced. These models are important because they may help define the population at risk of an unintended pregnancy. In other words, they describe the types of backgrounds and prior experiences that lead to pregnancy scares, which in turn may dramatically increase the risk of an unintended pregnancy.

Next, we use the experience of a pregnancy scare to predict the hazard of unintended pregnancy. This is important to our understanding of the processes leading to unintended pregnancy. Also, if a pregnancy scare is a frequent and important experience prior to unintended

pregnancy, it could help define the population to which unintended pregnancy intervention efforts should be targeted. In other words, pregnancy scares may prove to be an important and tangible marker that health care providers could use in a clinical setting to identify women at high risk of an unintended pregnancy.

METHODS

Study Design

The Relationship Dynamics and Social Life (RDSL) study uses a population-based sample of 1,003 young women, ages 18-19, residing in a Michigan county. A 60-minute face-to-face baseline survey interview was conducted between March 2008 and July 2009 to assess important aspects of family background; demographic information; key attitudes, values, and beliefs; current and past friendship and romantic relationships; education; and career trajectories. At the conclusion of this baseline interview, all respondents were invited to participate in a weekly journal-based study – a mixed mode (Internet and phone) survey for 2.5 years. Each week respondents choose to complete the journal either by logging into the study's secure website, or by calling a toll free number and completing the journal with a live interviewer. To date, respondents have completed 51,590 weekly journals; this portion of the study is still in the field, and will be completed in January 2012.

Respondents are paid $1 per weekly journal with $5 bonuses for on-time completion of five weekly journals in a row. Automated reminder emails and/or text messages are sent to respondents weekly. If a respondent is late, study staff first attempt to contact her by phone and later by email and letter in attempt to regain her participation. Respondents who become 60 or more days late are offered an increased incentive for completing the next journal. Small gifts

(e.g., pen, lip balm, compact, pencil) are also given to respondents to award their continued participation.

Our incentive scheme, coupled with the cooperative nature of this age group and their interest in the subject matter, has resulted in extremely high cooperation rates: an 83% response rate and a 94% cooperation rate for the baseline interviews. Over 99% of respondents who completed a baseline interview enrolled in the weekly journal portion of the study (N=992). Although there has been some attrition from the journal, 83% of respondents remained for at least 6 months, 75% for at least 12 months, and 64% for at least 18 months. Because many of the respondents are still enrolled in the journal portion of the study, the final response rate cannot yet be calculated.

Measures

•*Intentions.* One of the major obstacles to scientific research on unintended pregnancy is the measurement of unintended pregnancy. Most study designs, such as that used in the National Survey of Family Growth (NSFG), feature a single cross-sectional interview with retrospective reporting. As a result, all intention measures are based on retrospective reporting of intention for pregnancies that occurred sometime before the interview, often years before the interview. Each intention measure is subject to somewhat different levels of retrospective reporting error, but methodological research on surveys suggests that these errors will be substantial and significant (Groves et al. 2001; Schwarz and Sudman 1994; Sudman et al. 1996). Of greatest concern is that individuals alter their feelings to become more consistent with behavior (Festinger 1957; Williams et al. 1999), which may produce substantial underestimates of the true level of unintended pregnancy.

A second concern is the very simple way pregnancy intentions have been conceptualized by demographers in terms of a bipolar continuum. On one end, is a couple not wanting to conceive and on the other end is a couple wanting to conceive. This bipolar scale has typically been measured by a question, such as the one used by the NSFG, that asks respondents to look at the depiction of an equal-interval eleven-point scale with a 0 at one end and a 10 at the other end and then use that scale to rate their desire right before they got pregnant with a particular pregnancy. In real life, experiences are likely to be more complicated than this bipolar continuum, perhaps even involving an inconsistent combination of positive and negative feelings about pregnancy.

To reduce retrospective reporting error, the RDSL study intensively measures pregnancy intentions in weekly journal-based interviews. To better capture the complexity of pregnancy intentions, the study implemented an alternative approach to measuring them. The approach is based on the idea that there are two separate desires that are driven by two fundamentally different types of motivation – the desire to get pregnant and have a child, and the desire to avoid getting pregnant and having a child. Each of these desires is unipolar. Thus the desire to get pregnant was scaled from 0 = no desire to 5 = strong desire, and similarly, the desire to avoid getting pregnant was scaled from 0 = no desire to 5 = strong desire. There is good evidence that separate brain systems are involved in the rewards and punishments that are implicit in separate dimensions of this sort (Cacioppo and Berntson 1994; Miller 2007) and these two broad measures of positive and negative pregnancy desires have been largely uncorrelated in previous research (Miller 1995; Miller 2007).

We investigate pregnancy scares and unintended pregnancy, and so these measures of intentions are used to define our analytical sample. Our definition of a pregnancy scare is when a

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woman wanting to avoid pregnancy believes she is pregnant and later learns that she was not really pregnant. Thus all journals in which women report wanting to get pregnant are excluded from the analyses, because they are not at risk of an unintended pregnancy. We measure pregnancy intentions in the journal with the following questions:

> *"You know, getting pregnant and having a baby is a big event, one that has a lot of consequences. Most people your age have some positive and some negative feelings about getting pregnant and having a child. For this reason we are going to ask you first how much you want to get pregnant, using a scale from 0 to 5. Then we are going to ask you how much you want to avoid getting pregnant, using a scale from 0 to 5.*
>
> *First, how much do you want to get pregnant during the next month? Please give me a number between 0 and 5, where 0 means you don't at all want to get pregnant and 5 means you really want to get pregnant.*
>
> *And next, how much do you want to avoid getting pregnant during the next month? Please give me a number between 0 and 5, where 0 means you don't at all want to avoid getting pregnant and 5 means you really want to avoid getting pregnant."*

Journals in which women reported both a weak desire to get pregnant (0, 1, or 2) and a strong desire to avoid pregnancy (3, 4, or 5) are included in our analytic sample.

•*Unintended pregnancy.* Each week, in the journal, respondents are asked, "Do you think there might be a chance that you are pregnant right now?" Respondents who answer "yes" are asked, "Has a pregnancy test indicated that you are pregnant?" Respondents who answer "yes" to the question about the pregnancy test are coded "1" for pregnant during the week they report it. 15% of respondents reported an unintended pregnancy.

•*Any pregnancy scare.* Each week, respondents who believe they might be pregnant, but have not confirmed their pregnancy with a test, are asked, "Do you think you are probably pregnant or not?" Respondents who answer "yes" to this question are re-asked about the status of their pregnancy the following week. We consider respondents to have experienced a pregnancy scare

if they subsequently report that they are *not* pregnant, and they never reported the pregnancy as confirmed with a test. During the weeks in which the respondents did not desire pregnancy, the person-week is coded "1" for any pregnancy scare during the week they report it. 10% of respondents reported any pregnancy scare.

•***Number of pregnancy scares.*** A count indicates the number of pregnancy scares reported. This ranges from 0 to 5 and the mean is .14.

•***Sociodemographic characteristics.*** Several sociodemographic characteristics measured at the baseline interview are included in the current analysis. *Age* is categorical and ranges from 18 to 20 years old; the reference category is 18. *Race* is included as a dichotomous indicator for African American (33%) versus non-African American. *School enrollment/type* includes the following categories: 1) not enrolled and did not graduate from high school (8%), 2) not enrolled and graduated from high school (21%), 3) enrolled in high school (14%), 4) enrolled in two year college/vocational/technical/other (29%), and 5) enrolled in four year college (29%). Four year college is the reference category. A respondent is coded as received *public assistance* (23%) if she reported currently receiving at least one of the following: 1) WIC, 2) FIP, 3) cash welfare, or 4) food stamps. *Religious importance* is based on the question, "How important if at all is your religious faith to you - would you say not important (10%), somewhat important (32%), very important (36%), or more important than anything else (22%)?". The reference category is "not important". A dichotomous measure indicates whether the respondent is *living with a partner* (16%), based on two questions, "Who do you currently live with?" and "Do you have a place you live that is separate from where [Partner Name] lives?. A dichotomous measure indicates whether the *respondent's biological mother was less than 20 years old at her first birth* (35%). *Family structure* is based on the questions "While you were growing up, which of the following

people did you live with?" and "Which of these people did you live with for the majority of the time when you were growing up?." It includes the following three categories: 1) Two parents (both biological/adoptive parents or biological parent + step-parent = 54%); 2) one biological parent only (38%), and 3) other (8%). Two-parent family is the reference category. A dichotomous measure indicates whether the respondent's *mother's education is less than high school* (8%). *Parents' income* is coded as medium/high ($15,000+) (67%), low ($14,999 or less) (14%), or don't know/refused (19%).

Multiple prior pregnancy-related experiences are also included in the current analysis. *Age at first sex* is coded as 16 years or less (50%). Number of sexual partners is coded as 2 or more partners (58%). A dichotomous measure indicates whether a respondent *ever had sex without birth control* (45%). Number of prior pregnancies is coded as: 1) none (79%), 2) one (15%), and 3) two or more (7%). No prior pregnancy is the reference. *Time in study* is the final control measured in months. This ranges from .49 to 31 and the mean is 18.71. *Time in study squared* is the measure squared.

Analysis

First, chi-square tests were conducted to test for relationships between sociodemographic characteristics and early pregnancy-related experiences and the experience of any pregnancy scare. Second, a logistic regression was employed to test the independent effects of sociodemographic and early pregnancy-related experiences on the experience of any pregnancy scare. A Poisson regression was used next to test the independent effects of sociodemographic and early pregnancy-related experiences on the number of pregnancy scares experienced. Third, we use event history methods to model the risk of unintended pregnancy. Because the data are precise to the week, we use discrete-time methods to estimate these models. Person-weeks of

exposure are the unit of analysis. We consider women to be at risk of unintended pregnancy during all weeks they report that they are not currently pregnant (*unintended pregnancy* = 0), have a weak *desire to get pregnant* (0, 1, or 2), and have a strong *desire to avoid pregnancy* (3, 4, or 5). All journals in which women report wanting to get pregnant are excluded from the analyses, because they are not at risk of an unintended pregnancy. Although using person-weeks of exposure to risk as the unit of analysis substantially increases the sample size, Petersen (1986, 1991) and Allison (1982, 1984) have shown that using discrete-time methods does not deflate the standard errors and thus provides appropriate tests of statistical significance. Furthermore, because the probability of becoming pregnant is so small within each week, the estimates obtained using discrete-time methods are similar to those that would be obtained using continuous methods. In addition, because the probability of becoming pregnant is so small within each week, the hazard of unintended pregnancy is similar to the unintended pregnancy *rate*. Thus, in the text that follows, we sometimes refer to the effects of the covariates on the unintended pregnancy rate.

RESULTS

Table 1 focuses on the bivariate relationships between individual sociodemographic characteristics, early pregnancy-related experiences, and the experience of any pregnancy scare. Overall, 9.91% of respondents reported at least one pregnancy scare during the study period. More than twice as many African American women experienced any pregnancy scare compared to non-African American women. Fewer women enrolled in 4 year colleges experienced a pregnancy scare compared to other women. 14.9% of women who received public assistance experienced a pregnancy scare compared to 8.4% of women who did not receive public assistance. Higher proportions of women who find religion important experienced pregnancy

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scares than those who find religion less important. 14.8% of women living with a partner experienced a pregnancy scare compared to 9.0% not living with a partner. Higher proportions of women experienced a pregnancy scare among those with teen mothers, who grew up in a family structure that did not include both parents, and whose parents' income was $14,999 or less. More than twice as many women who were 16 years or younger at first sex, had two or more sexual partners, and ever had sex without birth control experienced any pregnancy scare compared to women who were older at first sex, had fewer sexual partners, and never had sex without birth control. 16.7% of women with one prior pregnancy and 15.8% with two or more prior pregnancies subsequently experienced one or more pregnancy scares compared to 8.2% of women with zero prior pregnancies.

Table 2 shows the results for the regressions of pregnancy scares on sociodemographic characteristics and early pregnancy-related experiences. The first model predicts any pregnancy scare. Our results in this multivariate model are quite similar to the bivariate results based on Table 1. Important differences include public assistance, biological mother <20 years old at first birth, parent's income, and early pregnancy-related experiences, which were significant bivariate relationships in Table 1, but are no longer significant in Table 2 because of the correlation among these measures. This suggests that early experiences with sex and pregnancy, and some indicators of socioeconomic status (public assistance, teen mother, and parental income) operate via other factors, such as childhood family structure, enrollment in school, and living with a partner. In other words, early sex/pregnancy experiences and lower socioeconomic status are associated with single-parent families, less enrollment in post-secondary education, and more cohabitation, which in turn increase the risk of a pregnancy scare.

The second model in Table 2 predicts number of pregnancy scares and we find results very similar to the first model. The only difference we find is a positive association between number of pregnancy scares and parental income of $14,999 or less and ever had sex without birth control. Also, enrolled in high school and living with a partner are not significant in the second model. So, although early sex experiences and lower socioeconomic status do not predict any pregnancy scare, they are associated with the experience of multiple pregnancy scares.

Table 3 shows the relationship between any pregnancy scare experience and respondents' hazard of experiencing an unintended pregnancy. We adopt a hierarchical modeling strategy, beginning with the pregnancy scare measure in Model 1, adding sociodemographic characteristics to Model 2, and adding early pregnancy-related experiences to Model 3. Model 1 shows higher unintended pregnancy rates among respondents who experienced a pregnancy scare. The experience of a pregnancy scare results in a 1.44 increase in the log-odds of experiencing an unintended pregnancy, which translates to more than four times higher odds of unintended pregnancy. Model 2 also shows higher unintended pregnancy rates among respondents with a pregnancy scare when measures of sociodemographic characteristics are included as controls. Although the experience of a pregnancy scare remains significant in the second model, the level of significance and size of the effect is reduced by approximately 50%, indicating that pregnancy scares are associated with unintended pregnancy in part because of sociodemographic characteristics that lead to both pregnancy scares and actual unintended pregnancy, particularly, race, living with a partner, and school enrollment. In other words, African-Americans, young women who are cohabiting with a partner, and young women who are *not* enrolled in college all have higher odds of experiencing a pregnancy scare, and also have higher odds of a subsequent unintended pregnancy. In addition, consistent with prior research,

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respondents who received public assistance and respondents with mothers who were teen moms have a higher hazard of unintended pregnancy. Lower parental income is positively associated with unintended pregnancy compared to higher parental income, as is respondent age of 19 years compared to 18 years.

The addition of pregnancy-related experiences to Model 3 explains an additional 23% of the magnitude of pregnancy scares. Respondents whose age at first sex was 16 years or younger and respondents with two or more sexual partners in a lifetime have higher unintended pregnancy rates. Also, compared to respondents with zero prior pregnancies, respondents with one or two or more prior pregnancies have higher unintended pregnancy rates. Model 3 otherwise looks very similar to the second model. The only difference we find is a positive association between the hazard of unintended pregnancy and growing up with one biological parent compared to growing up with both parents. There is a negative association between the hazard of unintended pregnancy and respondent age of 20 years compared to respondent age of 18 years. Also, enrolled in high school and public assistance are not significant in the third model.

DISCUSSION

Overall, we find some of the same sociodemographic characteristics that are associated with unintended pregnancy are also associated with pregnancy scares. Early pregnancy-related experiences that lead to unintended pregnancy, however, do not lead to pregnancy scares. In addition, we find pregnancy scares to be an important predictor of unintended pregnancy independent of these factors. These results tell us that it is common for a young woman to experience a pregnancy scare before she experiences an actual unintended pregnancy. In fact, 22% of the young women in our study who experienced an unintended pregnancy first

experienced a pregnancy scare. This is important because the experience of a pregnancy scare can be used to better define the population to which unintended pregnancy intervention efforts should be targeted.

Limitations

The study has several limitations. Although the sample is population-based, it consists of women residing in a single county in the state of Michigan and so the results may not be generalizable to all young women. Despite the high response rates the study was able to achieve, response was not 100% and it is possible that those who participated are different from those who did not participate. Also, like all survey data, social desirability bias may be an issue. Respondents who reported wanting to avoid pregnancy may be less likely to admit having a pregnancy scare and so we may be underestimating the true level of pregnancy scares experienced. Similarly, respondents wanting to avoid pregnancy may be less likely to report an unintended pregnancy. Finally, although we attempt to better capture the complexity of pregnancy intentions with our measures, it is unlikely any series of survey questions is capable of capturing the full range of complex emotions surrounding pregnancy intentions.

Recommendations

Our research supports the concept that a pregnancy scare is an important and tangible marker that health care providers could use in a clinical setting to identify women at high risk of an unintended pregnancy. However, we believe that further research on the general population is needed to corroborate our results before we can recommend that health care providers question their patients about pregnancy scares. If pregnancy scares are consistently found to predict unintended pregnancy, then further research will be needed in a clinic-based setting as well to

evaluate the effectiveness of asking patients about pregnancy scares to target risk-reduction

services.

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Table 1. Baseline Sociodemographic Characteristics and Early Pregnancy-Related Experiences by Any Pregnancy Scare (N=868)

	Total	No Pregnancy Scare	Any Pregnancy Scare	
Any pregnancy scare	9.91			
Sociodemographic Characteristics				
Race				
Non-African American	66.8	93.6	6.4	***
African American	33.2	83.0	17.0	
School enrollment/type				
Not enrolled and did not graduate	7.8	86.8	13.2	
Not enrolled and did graduate	20.7	86.7	13.3	
Enrolled in high school	13.7	86.6	13.5	**
Enrolled in 2 year college/vocational/technical/other	28.9	90.0	10.0	
Enrolled in 4 year college	28.8	95.2	4.8	
Public assistance				
No	76.7	91.6	8.4	**
Yes	23.3	85.2	14.9	
Religious importance				
Not important	10.0	95.4	4.6	
Somewhat important	32.4	92.2	7.8	*
Very important	35.9	88.1	11.9	
More important than anything else	21.7	87.8	12.2	
Living with partner				
No	84.5	91.0	9.0	*
Yes	15.6	85.2	14.8	
Biological mother less than 20 years old at first birth				
No	65.0	92.9	7.1	***
Yes	35.0	84.9	15.1	
Family structure				
Two parents	54.2	94.5	5.5	***
One biological parent only	38.0	85.8	14.2	
Other	7.8	80.9	19.1	
Mother's education less than high school graduate				
No	91.8	90.5	9.5	
Yes	8.2	85.9	14.1	
Parent's income				
$14,999 or less	13.7	81.5	18.5	***
$15,000 or greater	67.3	92.6	7.4	
Don't know/Refused	19.0	87.3	12.7	

Age			
18 years old	42.2	88.3	11.8
19 years old	49.4	91.1	8.9
20 years old	8.4	93.2	6.9
Early Pregnancy-Related Experiences			
Age at first sex 16 years or less			
No	49.8	94.4	5.6
Yes	50.2	85.8	14.2	***
Lifetime number of sexual partners 2 or more			
No	42.3	95.1	4.9
Yes	57.7	86.4	13.6	***
Ever had sex without birth control			
No	55.1	93.9	6.1
Yes	44.9	85.4	14.6	***
Number of prior pregnancies			
0 prior pregnancies	78.9	91.8	8.2
1 prior pregnancy	14.5	83.3	16.7	**
2 or more prior pregnancies	6.6	84.2	15.8

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (one-tailed tests)

Table 2. Logistic and Poisson Regression Estimates (Coefficients) of Effects of Baseline Characteristics on Any and Number of Pregnancy Scares (N=868)

	Any Pregnancy Scare	Number of Pregnancy Scares
Sociodemographic Characteristics		
African American	0.56 *	0.62 *
	(0.32)	(0.31)
School enrollment/type (ref=Enrolled in 4 year college)		
Not enrolled and did not graduate	0.19	0.29
	(0.56)	(0.52)
Not enrolled and did graduate	0.57 +	0.56 +
	(0.42)	(0.41)
Enrolled in high school	0.60 +	0.54
	(0.45)	(0.43)
Enrolled in 2 year college	0.34	0.41
	(0.41)	(0.40)
Public assistance	-0.21	-0.25
	(0.36)	(0.36)
Religious importance (ref=Not important)		
Somewhat important	0.50	0.50
	(0.57)	(0.52)
Very important	0.74 +	0.95 *
	(0.58)	(0.53)
More important than anything else	0.88 +	1.18 *
	(0.58)	(0.53)
Living with partner	0.54 *	0.26
	(0.32)	(0.26)
Biological mother <20 years old at 1st birth	0.32	0.20
	(0.26)	(0.24)
Family structure (ref=Two parents)		
One biological parent only	0.60 *	0.65 **
	(0.29)	(0.27)
Other	0.65 +	0.76 *
	(0.43)	(0.39)
Mother's education <high school graduate	-0.04	-0.24
	(0.43)	(0.37)
Parent's income (ref=$15,000 or greater)		
$14,999 or less	0.37	0.49 +
	(0.37)	(0.33)
Don't know/refused	0.08	0.11
	(0.32)	(0.29)
Age (ref=18 years old)		

19 years old	-0.31	-0.10
	(0.26)	(0.24)
20 years old	-0.59	-0.61
	(0.52)	(0.48)
Early Pregnancy-Related Experiences		
Age at first sex 16 years or less	0.23	0.17
	(0.36)	(0.35)
Lifetime number of sexual partners 2 or more	0.48	0.45
	(0.40)	(0.41)
Ever had sex without birth control	0.29	0.54 +
	(0.31)	(0.35)
Number of prior pregnancies (ref=0 prior pregnancies)		
1 prior pregnancy	0.14	-0.08
	(0.39)	(0.38)
2 prior pregnancies	-0.04	-0.50
	(0.52)	(0.50)
Constant	-4.54 ***	-4.67 ***
	(0.60)	(0.56)
X^2	68.56 ***	96.03 ***
Log-likelihood	-247.85	-329.28

Standard errors in parentheses.

Note: Number of pregnancy scares ranges from 0 to 5 and the mean is .14.

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (one-tailed tests)

Table 3. Logistic Regression Estimates (Coefficients) of Effects of Pregnancy Scare and Baseline Characteristics on Hazard of Unintended Pregnancy (N=868 individuals, 42,885 observations)

	M1	M2	M3
Pregnancy Scare			
Any pregnancy scare	1.44 ***	0.70 **	0.54 *
	(0.23)	(0.25)	0.25
Sociodemographic Characteristics			
African American		0.61 **	0.34 +
		(0.24)	0.24
School enrollment and type (ref=Enrolled in 4 year college)			
Not enrolled and did not graduate		0.16	-0.24
		(0.41)	0.42
Not enrolled and did graduate		1.08 ***	0.65 **
		(0.26)	0.27
Enrolled in high school		0.54 *	0.38
		(0.32)	0.33
Enrolled in 2 year college		-0.03	-0.28
		(0.28)	0.28
Public assistance		0.49 *	0.12
		(0.22)	0.24
Religious importance (ref=Not important)			
Somewhat important		0.31	0.39
		(0.35)	0.36
Very important		0.30	0.38
		(0.36)	0.36
More important than anything else		-0.06	0.16
		(0.39)	0.39
Living with partner		0.97 ***	0.65 **
		(0.22)	0.23
Biological mother <20 years old at 1st birth		0.54 **	0.35 *
		(0.20)	0.20
Family structure (ref=Two parents)			
One biological parent only		0.26	0.29 +
		(0.22)	0.22
Other		-0.03	-0.15
		(0.34)	0.35
Mother's education <high school graduate		0.31	0.37
		(0.30)	0.30
Parent's income (ref=$15,000 or greater)			
$14,999 or less		0.33 +	0.50 *
		(0.26)	0.27
Don't know/refused		-0.08	0.09

	Model 1	Model 2	Model 3
		(0.24)	0.24
Age (ref=18 years old)			
19 years old		0.36 *	0.32 +
		(0.20)	0.21
20 years old		-0.54	-0.71 +
		(0.48)	0.48
Early Pregnancy-Related Experiences			
Age at first sex 16 years or less			0.36 +
			0.26
Lifetime number of sexual partners 2 or more			0.85 **
			0.29
Ever had sex without birth control			0.08
			0.23
Number of prior pregnancies (ref=0 prior pregnancies)			
1 prior pregnancy			0.68 **
			0.26
2 prior pregnancies			1.02 ***
			0.31
Baseline Hazard Controls			
Time in study	0.03	0.07 *	0.08 *
	(0.04)	(0.04)	0.04
Time in study squared	-0.00	-0.00 +	-0.00 +
	(0.00)	(0.00)	0.00
Constant	-6.08 ***	-7.85 ***	-8.55 ***
	(0.25)	(0.48)	0.52
X^2	31.42 ***	143.63 ***	190.48 ***
Log-likelihood	-862.13	-806.02	-782.60

Standard errors in parentheses.

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (one-tailed tests)