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Desire for and to Avoid Pregnancy during the Transition to Adulthood

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Abstract

Unintended pregnancies disproportionately occur among teenage women, yet little is known about the determinants of pregnancy desire among this group. We use a comprehensive baseline survey and weekly data on pregnancy desires to investigate which unmarried 18–20 year-old women want a pregnancy, want to avoid pregnancy, and report *consistent* pregnancy desire and disinclination. Variables that positively predict pregnancy desire generally negatively predict desire to avoid pregnancy. While most young women have no desire and strong disinclination in most weeks, childhood receipt of public assistance is a strong predictor of wanting pregnancy and not wanting to avoid it. Comparing nested models suggests that the effects of childhood disadvantage operate through social environments where early pregnancy is less stigmatized. Young women in serious relationships, who are depressed, and who are not pursuing post-secondary education have more desire for pregnancy and less disinclination, but little of childhood disadvantage is mediated by these factors.

Keywords

Adolescent Pregnancy; Emerging Adulthood; Families and Individuals in Societal Contexts; Fertility

Introduction

The vast majority of nonmarital teenage pregnancies in the United States are defined as unintended, at least by some measure (Finer & Henshaw, 2006). Some unmarried women, however, actually want to become pregnant at early ages. Because of a longstanding emphasis on the consequences of unintended teenage pregnancies (Casares, Lahiff, Eskenazi, & Halpern-Felsher, 2010; Geronimus & Korenman, 1993; Levine, Emery, & Pollack, 2007), these women have often been overlooked by demographers. This has left crucial questions about the determinants of pregnancy desires among women in their teens and early 20s unanswered. Understanding how young unmarried women who want an early pregnancy differ from young women who do not is essential for developing a fuller picture of early family formation in the United States and for refining theoretical models of pregnancy intentionality during the transition to adulthood.

In this article, we focus on unmarried women's desires for pregnancy at ages 18 to 20 because this period is particularly important for its density of decisions with substantial future consequences—such as decisions about college, career, relationships, contraception, and early family formation (Arnett, 2000; Rindfuss, Morgan, & Swicegood, 1988). Further, it is a time of great instability during which life trajectories diverge sharply in ways that affect future privilege and disadvantage (Rindfuss, 1991).

To observe the various factors affecting young women's pregnancy desires during this turbulent time, we use the Relationship Dynamics and Social Life (RDSL) study, based on 2.5 years of weekly longitudinal data from a sample of women who were 18 or 19 years of age at the baseline survey. This rich dataset provides us with measures of pregnancy desires with two important and unique strengths – they are prospective (asked about the upcoming month) and they assess both desire *for* and desire to *avoid* pregnancy. This allows us to recognize the complexity of pregnancy desires and to directly examine whether and how the predictors of these two aspects of pregnancy desire differ (Zabin & Hayward, 1993).

Below we provide an overview of the most commonly used measures of pregnancy intention, which, unlike those we use, are retrospective. We then review existing scholarship about early nonmarital pregnancy and the determinants of young adult women's desire for an early pregnancy. Following this, we examine which characteristics of respondents and their environments predict prospectively measured desire for and desire to avoid pregnancy and further assess whether those factors predicting one also predict the other.

Existing Measurements and Conceptualizations of Pregnancy Intention

Most existing studies of pregnancy intentions rely on data that was collected after the birth (or less frequently after pregnancy but before birth) occurred. Often this information is based on questions about whether a woman wanted to become pregnant “right before” (National Survey of Family Growth (NSFG)) or “just before” (National Longitudinal Study of Youth (NLSY79)) she became pregnant. Although these questions attempt to measure feelings about pregnancy before it occurred, because of retrospective reporting, it may be difficult for women to disentangle their pre-pregnancy feelings from their experience of being pregnant or raising a child. Prospective questions – asked before the pregnancy occurs, are therefore

more likely to accurately reflect pre-pregnancy desires (Koenig, Acharya, Singh, & Roy, 2006; Williams, Abma, & Piccinino, 1999). In this study, we use data that captures women's desires about pregnancy in the upcoming month and thus represent intentions preceding a pregnancy.

Existing scholarship has also largely conceptualized pregnancy intentions in terms of a one-dimensional, bipolar scale that is dichotomized. For example, the NSFG and the NLSY79 ask women if they *wanted* a pregnancy (right/just before they became pregnant), without asking *how much* they wanted to become pregnant or whether they also wanted to avoid pregnancy. Likewise, the Demographic and Health Surveys (DHS), collected in developing countries, only ask women if their last pregnancy was *wanted*. Even the relatively large literature critiquing measures of pregnancy intentions and suggesting that women's feelings about pregnancy are complex relies on a single dichotomized bipolar scale to describe such complexity (Brückner, Martin, & Bearman, 2004; Jaccard, Dodge, & Dittus, 2003). Whether dichotomized or not, one-dimensional conceptualizations of pregnancy desire ignore the possibility that individuals can possess both positive and negative feelings at the same time (Miller 1994, 1995; Miller et al. 2013), despite psychological research suggesting that the brain has two channels for simultaneously processing positive and negative information (Cacioppo & Berntson, 1999).¹ The one-dimensional, bipolar approach may therefore not fully capture pregnancy desires.

The data we use for this study include two separate bipolar measures of overall pregnancy desire – one assessing desire *for* pregnancy (ranging from none to high), and another assessing desire to *avoid* pregnancy (also ranging from none to high). We call these two measures “pregnancy desire” and “pregnancy disinclination.” The inclusion of both measures allows us to investigate consistency in positively and negatively stated pregnancy desires and to assess the extent to which social circumstances predicting desire *for* pregnancy also predict the desire to *avoid* pregnancy.

Potential Determinants of Pregnancy Desire during the Transition to Adulthood

Previous research indicates a strong relationship between socioeconomic background and early pregnancy, such that women from disadvantaged backgrounds are more likely to become pregnant before the age of 20 relative to their peers (Finer & Henshaw, 2006; Hogan & Kitagawa, 1985). This disparity in early pregnancy echoes broader class-based patterns in unintended fertility, irrespective of age. For example, in the United States, poor women's unintended pregnancy and birth rates are more than six times higher than the rates of non-poor women (Finer & Zolna, 2011).

These socioeconomic differences are accompanied by large racial disparities as well: black and Hispanic women have more than twice the teen pregnancy rates of non-Hispanic whites (Finer & Zolna, 2011).

¹Information processed through one's positive and negative affective channels are sometimes referred to as one's appetite (desire for) and threat (desire to avoid).

These patterns across race and socioeconomic status suggest the possibility of similar disparities in terms of teenage women's pregnancy desires. On the other hand, because 76% of pregnancies among older teenagers are reported as unintended (Finer & Zolna, 2011), it is possible that neither race nor class predict the *desire* to have a pregnancy. Instead, the disproportionate number of unintended pregnancies occurring among disadvantaged youth may indicate a lack of efficacy at consistently contracepting, despite not wanting a pregnancy (England, Caudillo, Littlejohn, Bass, & Reed, 2016; England, McClintock, & Shafer, 2011) or more sexual activity among this group, rather than a stronger desire to get pregnant.

If race and socioeconomic status influence a woman's pregnancy intentions, they may do so by shaping the social structures that surround her. As the cognitive-social model of fertility intentions suggests, social structures are comprised of one's material circumstances, cultural schemas attached to those circumstances, and the interplay between the two (Bachrach & Morgan, 2013). As such, social structural contexts should inform the attitudes, beliefs, and norms that influence women's formation of intentions. Further, they should affect the situations that arise within a woman's life, her options for responding, and the costs and benefits associated with each option (Bachrach & Morgan, 2013).

A wide body of research supports this theoretical perspective. For instance, research has shown that young women with friends who have been pregnant, who grew up in single-parent homes, or who were raised around single mothers are more likely to be open to teenage pregnancy than other young women, especially if these experiences diminish their perception of the stigma of teen motherhood (Arai, 2007; Plotnick & Hoffman, 1999; Whitehead, 2001, 2009). Because early and unintended pregnancies occur disproportionately among black women and women with low socioeconomic status (Finer & Henshaw, 2006; Finer & Zolna, 2011), women belonging to these groups are more likely to experience these normalizing situations in their environment, which may in turn increase their desire for and/or decrease their desire to avoid early pregnancy (Ajzen, 1985; Bachrach & Morgan, 2013). In contrast, when young women belong to a peer group that opposes early, nonmarital childbearing, they may hold more negative attitudes toward teen pregnancy (Hayford & Morgan, 2008; Whitehead, 2001) that depress the desire to become pregnant (Ajzen, 1985; Bachrach & Morgan, 2013).

Emotional wellbeing may be another important mechanism explaining disparities in pregnancy desires at early ages. Previous research indicates that women with lower socioeconomic status, or who live in disadvantaged neighborhoods, are more likely to experience depression and alienation than their less-disadvantaged counterparts (Ross & Mirowsky, 2006, 2009) and that loneliness and depression can increase pregnancy desire when women think that having a child will provide them with happiness or close company (Edin & Kefalas, 2005; Horwitz, Klerman, Kuo, & Jekel, 1991; Knight, Chase, & Aggleton, 2006). On the other hand, depression may contribute to pregnancy *indifference* (no desire for pregnancy but also no desire to avoid it) if depression elevates a woman's sense of apathy or helplessness.

Young women's socioeconomic status may further affect their short-term pregnancy desires via their competing educational and employment opportunities (Arai, 2003; Bachrach & Morgan, 2013; Stevens-Simon, Sheeder, Beach, & Harter, 2005; Whitehead, 2001). Some young women, for example, may be less likely to desire a pregnancy because they feel that their money and time are better spent on college. If college is a viable option for them, and if they believe that high-quality career opportunities will result from college, they may choose to invest in college rather than motherhood during these early adult years. Likewise, although paid employment may make a teen better able to afford a baby, if employment provides a potential career path, it may require or motivate early investment activities that compete with parenthood (Duncan & Hoffman, 1990; Phipps, Salak, Nunes, & Rosengard, 2011).

Lastly, differences in relationship norms, including commitment levels, may further contribute to socioeconomic and racial disparities in pregnancy desires among teens and young adults. Being in a committed relationship may lead to desire for pregnancy if women feel that a pregnancy would enhance the intimacy or commitment of their relationship, or if they feel that their partner would make a good father. Committed relationships may also increase the desire for pregnancy when women suspect that their partner wants them to have a baby (Edin, England, Shafer, & Reed, 2007; Edin & Kefalas, 2005), or simply because they believe that it is easier to raise a child with a partner. At the same time, relationships may lead to pregnancy *ambivalence* (simultaneous desire for pregnancy and desire to avoid pregnancy) if women want a pregnancy but have reservations about their current partner. The possibility that relationship status may influence women's immediate pregnancy desire is especially plausible given that both partners' preferences affect fertility behavior (Thomson, 1997; Thomson, McDonald, & Bumpass, 1990).

Data

Sample

We use data from the Relationship Dynamics and Social Life study, which included a 50-minute baseline interview as well as five-minute interviews conducted on a weekly basis over the subsequent two and a half years (between 2008 and 2010). These data are from a representative, population-based sample of women who were 18 to 20 years old and who were residing in one Michigan County at the time of the baseline survey. The sampling frame was the list of driver's licenses and personal ID cards issued in that county. Because we aim to measure both constant and time-varying circumstances that predict pregnancy desires among unmarried early adult women, we limit our sample to respondents who complete at least one follow-up interview, and who were not pregnant or married at baseline. In addition, we limit our sample to weeks in which the respondent was not married and neither was nor believed she was pregnant, over the course of one year. This yields a final sample of 25,142 person-weeks across 875 respondents. Our choice to restrict the data to the first year of the survey reflects both our interest in teen pregnancy and concerns about higher rates of attrition for more disadvantaged respondents (Barber, Kusunoki, & Gatny, 2011; Gatny, Cooper, Axinn, & Barber, 2009). Respondents are between 18 and 21 in the person-weeks analyzed.

Measures

Dependent variables—Each week, respondents were asked “How much do you want to get pregnant during the next month?” Respondents answered between 0 (not at all) and 5 (really want to). In 94% of weeks, respondents answered ‘not at all’ (Figure 1), and 73% of respondents answered ‘not at all’ every week (not shown). We construct two corresponding variables: an interval-level measure of *pregnancy desire* (0–5) and a dichotomous measure where (1) indicates ‘any desire’ and (0) indicates ‘none.’

Each week respondents were also asked “How much do you want to avoid getting pregnant during the next month?” with possible answers ranging between 0 (not at all) and 5 (really want to avoid). In 92% of weeks, respondents answered ‘really want to avoid’ pregnancy (Figure 2), and 68% of respondents answered that they really wanted to avoid pregnancy in every week (not shown). We construct two corresponding variables: an interval-level measure of *pregnancy disinclination* (0–5) and a dichotomous measure of strong disinclination where (1) is the strongest desire to avoid pregnancy, and (0) otherwise.

Supplementing our investigation of these outcomes, we predict a categorical measure that combines *any desire* and *strong disinclination* into four permutations: anti-pregnancy (no desire and strong disinclination), indifferent (no desire and <strong disinclination), ambivalent (any desire and strong disinclination), and pro-pregnancy (any desire and <strong disinclination). The discussion of models estimating this measure is reserved until after the main findings.

Predictors—Predictors in this study are categorized into five groups: family background and race; social environment; emotional wellbeing; education and employment; and relationship status.

Family background includes maternal education, mother’s age at first birth, parents’ home ownership, and current and childhood public assistance—all of which are assessed in the baseline survey. Maternal education is a binary measure of whether the respondent’s mother attended college. Another binary variable indicates whether the respondent’s *mother was less than twenty years old at her first birth*. *Parents’ owned their own home* is a binary variable referring to the respondents’ childhood. *Received public assistance in childhood* is also a binary variable referring to whether the respondent’s family ever received any kind of welfare. *Receiving public assistance at baseline* indicates whether the respondent was receiving any type of public welfare at baseline. Race is measured with a dummy for whether or not the respondent is *African American*.²

Social environment includes measures of religiosity, motherhood among friends, single women in the neighborhood, and perceptions of friends’ and parents’ approval of a potential pregnancy. All measures are taken from responses to the baseline survey. For *religiosity*, respondents were asked how important their religious faith is to them. Respondents who reported that their faith is “very important” or “more important than anything else” are

²In our sample, 97% of respondents were either African American or white. There are not enough observations of other races/ethnic groups for additional categories.

coded (1) for high importance. Respondents who reported that their faith is “somewhat important” or “not important” are coded (0). *Proportion of friends who have children* and *proportion of single mothers in community*³ are both ordinal variables ranging between 0 and 4 with (0) equating ‘none’ and (4) equating ‘almost all.’ *Friends’ approval of pregnancy* and *parents’ approval of pregnancy*⁴ range from (0) for ‘not at all positive’ to (5) for ‘extremely positively.’⁵

We assess emotional wellbeing with three scales: *depression*, *loneliness*, and *self-esteem*.⁶ *Depression* ranges from 0 to 20 and is a summation of scores with regard to how often (on a scale of 0 to 4) the respondent has the blues, feels sad, depressed, or happy (reverse-coded), and feels she has no reason to live. This scale is modeled after the Center for Epidemiologic Studies–Depression Scale (Radloff, 1977). For *loneliness*, respondents were asked on a scale of 0 to 4 how often they lack company, have someone to turn to, feel left out, or feel close to someone. The final scale is based on a simplified version of the UCLA Loneliness Scale and is a summation of these items, ranging 0 to 16 with (16) being the loneliest (Russell, Peplau, & Ferguson, 1978). *Self-esteem* is based on the Rosenberg (1965) scale, ranging from 0 to 16, and is determined by how often a respondent feels satisfied or positive about herself and how often she feels not proud or like a failure. Higher scores indicate higher self-esteem. All scales are treated as interval-level measures.

Education and employment were first assessed at baseline and then again every three months.⁷ Because respondents are 18 to 20 across the weeks in our analysis, many have not completed their educational attainment. Thus, our indicators reveal educational attainment to date, combining whether the respondent was currently enrolled and the level of schooling in which she was enrolled. The result is a categorical measure including *enrolled in a four-year post-secondary school*; *enrolled in or graduated from a two-year post-secondary or vocational school*; *completed high school and not enrolled in post-secondary*; *enrolled in high school*; and *dropped out of high school and not currently enrolled*.⁸ We treat women who were enrolled in a four-year post-secondary school as the reference group. Employment has three categories: *not employed*, *employed but not on career path*, and *employed on career path*. This is derived from two separate questions about respondents’ employment status and whether or not her employment is “part of a longer term career plan.”

Relationship status was measured each week, in response to four questions. First, respondents were asked if they had become engaged. Non-engaged women were asked, “Are

³Forty respondents said they did not know how many single mothers are in their community. These respondents are assigned the modal category—‘some,’ (coded 3).

⁴Four respondents said they did not know whether their friends would approve of pregnancy. Likewise, one respondent said she did not know whether her parents would approve of pregnancy. These cases are set to the modal category—‘not at all positively,’ (coded 0).

⁵In a robustness check, we treat *proportion of friends who are mothers*, *single mothers in the community*, *friends’ approval of pregnancy*, and *parents’ approval of pregnancy* as categorical rather than continuous variables. The results of this sensitivity test, which are available upon request, lead to substantively similar conclusions.

⁶One unique respondent is missing for each of these scales. These respondents are assigned the modal category.

⁷Respondents’ answers carry over each week until the question is re-asked.

⁸We collapse *graduation from* and *enrollment in a 2-year post-secondary program* because ‘graduated’ only constitutes 698 weeks (<3% of our sample). Moreover, when we run our analysis treating *graduated from 2-year post-secondary* and *enrolled in 2-year post-secondary* as distinct categories, the coefficients for both groups are qualitatively similar in direction, magnitude, and significance (available upon request).

you currently in a special relationship?” A respondent who answered ‘no’ was then asked, “Are you currently in any type of relationship that involves physical or emotional contact?” If respondents answered ‘yes’ to either being in a special relationship or in a physical or emotional relationship, then they were asked, “Do you and [partner] spend a lot of time together?” Based on these questions we create a relationship scheme containing six categories: *not partnered*; *engaged*; *in a special relationship and spending time together*; *in a special relationship and not spending time together*; *in a non- special relationship and spending time together*; and *in a non- special relationship and not spending time together*. We treat *not partnered* weeks as the reference group.

Several variables could potentially be highly correlated in a way that might introduce multicollinearity to our models. However, a correlation matrix of all covariates revealed that no two variables share a correlation higher than 0.64, and that most correlations are well below 0.30 (available upon request). We treat most ordinal-level measures as interval-level (as detailed above). Introducing these variables as a series of categorical indicators does not change our conclusions (available upon request).

Analytic Strategy

Because of the panel structure of the RDSL data, person-weeks are the units of analysis, such that there are observations for each week from each respondent. This allows all regression models (except our supplementary multinomial model) to contain random effects for respondents and time (for a more detailed explanation, see Wooldridge (2010)). Random effects models address correlated errors within respondents by assigning respondent-specific coefficients accounting for the difference between a respondent’s average pregnancy desire (or disinclination) and the average across all respondents. They further address correlated errors within weeks by assigning week-specific coefficients that account for the difference between respondents’ pregnancy desire (or disinclination) in a given week and their average across all weeks. When discussing the effects of covariates collected at baseline, we refer to the effects in terms of respondents because the values of these covariates remain constant over the course of the study. When discussing the effects for time-varying covariates (education, employment, and relationship status), it is important to remember that these differences reflect a combination of differences within persons across weeks, and between-person differences in whether or how often women were in the various categories of the specific variable.

To compare overall patterns of associations between the predictors and each of our dichotomous and interval-level measures of pregnancy intentions, we begin with bivariate regression models of each independent and dependent variable. The results of these bivariate analyses further serve as a point of reference with respect to any mediation we observe when conducting multivariate analyses. Our interval-level outcomes—*pregnancy desire* and *pregnancy disinclination*—are logged and then modeled using linear regressions. As a sensitivity test, we rerun these models using ordered logistic regression with the original, dependent variables scored 0–5 and find the results to be similar in terms of magnitude, direction, and statistical significance (available upon request). Our dichotomous outcomes—*any desire* and *strongest disinclination*—are modeled with logistic regression.

To determine which covariates predict pregnancy desires net of others, and to shed some light on mediated (indirect) effects, we conduct a series of nested multivariate logistic regressions predicting *any desire* (Models 1–6) and *strong disinclination* (Models 7–12). Models 1 and 7 begin with indicators of *family background and race*, which we interpret to be exogenous. In the following models we introduce blocks of variables for *social environment, emotional wellbeing, education and employment, and relationship status*, one at a time, and then finally all together.⁹ As a sensitivity test, we rerun all multivariate models predicting the original interval (0–5) measures of pregnancy desire and disinclination and find the results to be substantively similar (available upon request).

Finally, to more fully investigate instances in which *any desire* and *strong disinclination* do not align, we conduct a supplemental analysis in which we predict a categorical measure containing four desire-disinclination combinations. Specifically, we use multinomial logistic regression, with standard errors clustered by respondent, to estimate the odds of *indifference, ambivalence, and pro-pregnancy* desires relative to *anti-pregnancy* desires in a given week.

In our tables we identify whether coefficients are significant at .001, .01, or .05 levels, using one-tailed tests. However, in our discussion, we do not strictly rely on p-values to interpret overall patterns of results.

Results

Bivariate Analyses—We began this analysis with a series of bivariate models assessing the extent to which variables predicting the desire for pregnancy were the same (with opposite sign) as variables predicting the desire to avoid pregnancy, and the extent to which variables predicting pregnancy desires measured dichotomously also predicted pregnancy desires measured at the interval-level (Table 2). Several notable patterns emerged. First, almost all predictor variables were significantly associated with pregnancy desires (irrespective of how they were measured). Second, most variables that were positively associated with *pregnancy desire* were negatively associated with *pregnancy disinclination*, and vice versa. The same was true for *any desire* and *strong disinclination*. Third, the vast majority of the significant predictors of *pregnancy desire* and *disinclination* (interval-level) also predicted the parallel dichotomous measures, *any desire* and *strong disinclination*, with a few exceptions. Together, the results of our bivariate analyses suggested that whether pregnancy desires were expressed positively or negatively, or measured dichotomously or continuously, they demonstrate a similar pattern of relationships with the predictor variables within our sample.¹⁰

To briefly summarize these bivariate patterns in terms of our grouped predictors, we observed that socioeconomic disadvantage, in its various forms, was generally associated

⁹As a sensitivity test, we rerun all primary models limiting the sample to women who had never been pregnant before baseline. This allows us to observe whether the factors predicting desire or disinclination toward a *first* pregnancy differ from the factors predicting desire or disinclination toward any pregnancy.

¹⁰Two exceptions arise. *Religiosity* significantly predicts *any desire* and *strong disinclination* separately, but does not predict logged *pregnancy desire* or *disinclination*. *Loneliness* significantly predicts logged *desires* and *disinclination*, but not *any desire* or *strong disinclination*. However, these bivariate results are similar in direction and magnitude across models, despite not being statistically significant in some.

with higher odds of *any desire* and lower odds of *strong disinclination* toward pregnancy and that African Americans had lower odds of *strong disinclination* than non-African Americans. *Social environments* that were (at least perceived to be) more supportive of pregnancy were also associated with higher odds of *any desire* and lower odds of *strong disinclination*. *Emotional wellbeing* demonstrated a pattern in which women with higher levels of depression and loneliness and lower levels of self-esteem were more likely to report having *any desire* for pregnancy and less likely to report a *strong disinclination* toward it. *Education* and *employment* were associated with lower odds of *any desire* and higher odds of *strong disinclination*. Finally, the more committed a woman's relationship was, the higher her desire for pregnancy was, and similarly, the lower her desire was to avoid it.

Multivariate Analyses—The next analytic component used nested multivariate logistic regressions to determine which predictors remained significant net of others and to examine which covariates explained significant family background and racial differences observed in the bivariate analysis (Table 3).

Although race was a significant predictor of pregnancy intentions in our bivariate models, in our multivariate models it was not; African American respondents did not significantly differ from non-African Americans in their *desire* or *disinclination* toward pregnancy when controlling for other family background measures, even before entering additional controls (Table 3, Models 1 and 7). Since the largest socioeconomic predictors were *public assistance receipt in childhood* and *at baseline*, and *mother <20 years at first birth*, it is probably because African Americans disproportionately experienced economic disadvantages enough to qualify them for welfare—or familial situations that lead to such disadvantage—that their pregnancy desire and disinclination differed from whites'. Parents' home ownership also did not predict having *any desire* for or *strong disinclination* toward pregnancy in the multivariate analysis (Table 3, Models 1 and 7), despite significant associations with both in the bivariate models. This suggested that home ownership, too, probably operated through economic disadvantage, or characteristics of parents' situations that lead to disadvantage.

Having a *mother <20 years at first birth* approximately doubled the log-odds of *any desire* for pregnancy and decreased the log-odds of *strong disinclination* by a similar amount (Table 3, Models 1 and 7). However, the magnitude of these associations was nearly cut in half when controlling for all other aspects of respondents' background and environment (Table 3, Models 6 and 12).

Receiving public assistance as a child was associated with more than doubled log-odds of *any desire*, net of other family background indicators and race (Table 3, Model 1) and net of the effects of all other covariates (Table 3, Model 6). It was also negatively associated with *strong disinclination*, net of family background and race (Table 3, Model 7), but fell short of statistical significance in the most saturated model (Table 3, Model 12). The largest mediation effect occurred when indicators of the social environment were introduced (Model 8). To mediate the effect of *receiving public assistance as a child*, a variable must have been associated with both *receiving public assistance as a child* and *strong disinclination* toward pregnancy. The indicators of social environment significantly associated with both included having friends who were parents and having friends or parents who approved of pregnancy

(results not shown). Young women whose families received public assistance had similar levels of *religiosity* as those whose families did not (results not shown), so *religiosity* was not a mediator.

Receiving public assistance at baseline demonstrated a similar pattern in that it increased the odds of *any desire* and lowered the odds of *strong disinclination*, net of family background and race (Table 3, Models 1 and 7), but it was not statistically significant once all additional covariates were included in the models (Models 6 and 12). Again the effect of *public assistance at baseline* on *any desire* was entirely mediated by controlling for indicators of the social environment (Table 3, Model 2), while its effect on *strong disinclination* was reduced nearly in half by controlling for these same indicators (Table 3, Model 8). Thus, it may be that *receiving public assistance as a child* or *at baseline* operated in part by shaping who young women interacted with – those who had or approved of early pregnancies.

In terms of predictor variables beyond family background and race, relationships from Table 2 largely persisted – environments supportive of young unmarried pregnancy were generally associated with higher odds of *any desire* for pregnancy and lower odds of *strong disinclination* (Table 3, Models 2 and 8). *Depression* was also associated with higher odds of *any desire* and lower odds of *strong disinclination* (Table 3, Models 3 and 9), though self-esteem, which was highly correlated ($r=.47$) with depression, was not significant in any multivariate model. These relationships were mediated only trivially when controlling for *education and employment* and *relationship status* (Table 3, Models 7 and 12).

As was true in the bivariate models of Table 2, higher levels of education and career-path employment continued to be associated with lower odds of *any desire* for pregnancy and higher odds of *strong disinclination*, though non-career-path employment no longer statistically differed from non-employment (Table 3, Models 4 and 10). These effects were mediated only slightly when all other controls were introduced (Models 6 and 12). Thus, they may have operated directly by affecting the opportunity costs of becoming pregnant.

Like the bivariate models in Table 2, respondents' relationship status continued to demonstrate a strong positive association with *any desire* and a strong negative association with *strong disinclination* net of *family background and race* indicators (Table 3, Models 5 and 11) and in the saturated models (Models 6 and 12).

Supplementary Analyses

Another way to investigate (in)consistency between *any desire* and *strong disinclination* was to integrate these two measures into a categorical variable containing four mutually exclusive permutations: *anti-pregnancy* (no desire, strong disinclination), *indifferent* (no desire, <strong disinclination), *ambivalent* (any desire and strong disinclination), and *pro-pregnancy* (any desire and <strong disinclination). This categorical outcome allowed us to observe conflicting responses – ambivalent or indifferent – more explicitly than was possible in models predicting *any desire* and *strong disinclination* separately. Consistent with our finding that in most weeks respondents separately reported no desire and the strongest disinclination, in 91% of weeks respondents reported both (i.e. *anti-pregnancy*, Table 1). In contrast, respondents only consistently reported *pro-pregnancy* intentions in 6% of weeks.

Conflicting desire and disinclination intentions indicative of *indifference* and *ambivalence* occurred the least often, constituting only 3% of weekly responses together.

To add nuance to the interpretation of our multivariate logistic regressions, we investigated which characteristics of respondents and their environments predicted these various desire-disinclination combinations, relative to *anti-pregnancy*, using multinomial logistic regression (Appendix A). The results indicated that *childhood public assistance* positively predicted both *pro-pregnancy desires* and *ambivalence*, though *public assistance at baseline* was associated with lower odds of these relative to consistently *anti-pregnancy* desires. Although our logistic models suggested that *parents' approval of pregnancy* was associated with higher odds of *any desire* and lower odds of *strong disinclination* (separately), our multinomial model suggested that in fact, *parents' approval of pregnancy* was associated with greater *indifference* toward becoming pregnant (no desire and <strong disinclination at the same time). Lower levels of education demonstrated a pattern consistent with more *pro-pregnancy* desires and *indifference* relative to higher levels of education. Being *depressed*, having a higher *proportion of friends who have children*, and being in serious relationship were generally associated with consistently *pro-pregnancy* desires, rather than with greater indifference or ambivalence (with the exception of being engaged).

Discussion

This study addressed a set of oft-overlooked questions, observing which circumstances predicted whether an 18 to 20 year-old unmarried woman expressed desire or disinclination toward pregnancy and whether those factors that predicted pregnancy desire also predicted pregnancy disinclination. Our findings suggested that characteristics positively associated with young women's desire for pregnancy were generally negatively associated with their disinclination. For the most part, this pattern held regardless of whether we measured women's desires dichotomously or with an interval scale. Thus, while it is possible for people to possess both positive and negative attitudes simultaneously (Cacioppo & Berntson, 1999; Stanley & Meyer, 2009), we found that, among early adult women, these two affective channels were rarely affected differently by circumstances; what increased desire generally decreased disinclination and vice versa.

There are several potential explanations for the relative lack of ambivalence and indifference we observed. One is that we focused on young women during the transition to adulthood. During this stage of the life course, a high degree of uncertainty and change may lead most women to be clear and consistent about their fertility intentions, which are most often against a near-term pregnancy. However, women's fertility expectations may change with their life circumstances as they grow older (Hayford, 2009), leaving open the possibility that certain factors may distinctly affect pregnancy desire and disinclination later in life. A second plausible explanation is that our survey responses reflected normative cultural scripts about early childbearing, rather than respondents' actual intentions, and therefore suffered from social desirability bias (Bachrach & Morgan, 2013). Third, because respondents were asked questions about both the desire for and the desire to avoid pregnancy within the same 5-minute survey each week, the survey design may have introduced some bias toward consistency.¹¹ While all these are possible explanations, we believe that the most likely

interpretation is simply that among young adult women, desire for pregnancy, while having diverse determinants, is itself a single dimension such that measures of the desire for and the desire to avoid pregnancy basically tap the same construct.

Overall, our findings suggested that women who grew up with extreme economic disadvantage—those whose families received public assistance during childhood—were much more likely to want a pregnancy and less likely to want to avoid one during early adulthood. In line with the cognitive-social model of fertility intentions (Bachrach & Morgan, 2013), we found that these differences were partly attributable to differences in young women’s social environments. Depression, not attending post-secondary schooling, and being in a serious relationship were other factors associated with desiring pregnancy or having less desire to avoid it; however, none of them were as important in mediating the effects of childhood disadvantage.

Young women’s pregnancy desires often mirrored normative ideas about family formation in their social environment. For example, respondents with a teen mother were more likely to have any desire for pregnancy. Prior studies suggest that we can attribute this to the normalcy and acceptance of early childbearing in these families (Arai, 2007; Plotnick & Hoffman, 1999; Whitehead, 2001, 2009). Such an interpretation is further supported by the positive relationship we observed between parents’ approval of teenage pregnancy and respondents’ desire for or disinclination towards pregnancy. Further supporting the importance of the social environment, we found that pregnancy desires were predicted by proportion of friends who are mothers and whether friends approve of pregnancy. One limitation of this study, however, was that it relied on respondents’ perceptions of their parents’ and friends’ approval, and of their community make-up. Because the RDSL did not include a survey of other household members or community characteristics, we were unable to determine whether respondents’ perceptions were driven by their own attitudes, which could have lead to an overestimate of the relationships discussed here.

Beyond the social environment and socioeconomic background, we found that young, unmarried women who were more depressed and who were in a serious relationship were more desirous of a pregnancy and less strongly oriented to avoid one. The positive relationship between depression and pregnancy desire may reflect some women’s belief that children increase happiness and/or add a sense of meaning and value to one’s life (Knight et al., 2006; Luker, 1984).

A major conclusion from our analysis was that most indicators of past or current socioeconomic disadvantage predict higher odds of any pregnancy desire and lower odds of strong disinclination. As we mentioned above, growing up in a family receiving public assistance, as well as receiving public assistance at baseline, were two of the strongest predictors of pregnancy desires. We also found that enrollment in post-secondary school and

¹¹However, the first time these questions were posed, they were preceded with the following introduction: “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.”

employment in career-oriented jobs were associated with lower odds of any desire for pregnancy and with higher odds of the strongest desire to avoid it. Given our limited ability to assess the causal order between all of our measures, we can't be sure which aspects of disadvantage or its correlates drive this association. Nonetheless, our findings resonate with the claims of qualitative studies, which suggest that some young, unmarried women in poverty want to get pregnant, or at least aren't strongly concerned with avoiding pregnancy (Edin et al., 2007; Edin & Kefalas, 2005).

In sum, the contributions of this study are threefold. First, we showed that at the population level, socioeconomic disadvantage, social environments that are supportive of pregnancy, depression, and relationship seriousness predict both desires for and disinclination toward pregnancy. Thus, although in theory some social conditions could lead to more pregnancy desire but not necessarily less pregnancy disinclination, or vice versa, this is not generally the case among young women. Second, we established that it is generally true that factors predicting any desire also predict how much desire, and factors predicting strong pregnancy disinclination also predict the level of disinclination more generally. Finally, we demonstrated that, similar to the factors that predict unintended pregnancy in other studies, socioeconomic disadvantage also predicts young women's pregnancy *desires*. Because of the strong link between pregnancy desires and pregnancy rates (Miller, Barber, & Gatny, 2012), this suggests that similar factors are likely to lead to both unintended and intended early pregnancy. We do not interpret this to mean either that disadvantaged women's stated pregnancy desires are not genuine, or that their reports of pregnancies as unintended are particularly suspect. Rather, we suggest that disadvantaged young women, on average, have more desire for pregnancy, and even when they do not desire pregnancy, they are less able to translate those desires into pregnancy prevention.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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References

- Ajzen, I. From intentions to actions: A theory of planned behavior. Springer; 1985.
- Arai L. Low expectations, sexual attitudes and knowledge: explaining teenage pregnancy and fertility in English communities. Insights from qualitative research. *The Sociological Review*. 2003; 51(2): 199–217. DOI: 10.1111/1467-954x.00415
- Arai L. Peer and neighbourhood influences on teenage pregnancy and fertility: Qualitative findings from research in English communities. *Health & Place*. 2007; 13(1):87–98. doi:<http://dx.doi.org/10.1016/j.healthplace.2005.10.003>. [PubMed: 16337424]
- Arnett JJ. Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*. 2000; 55(5):469–480. DOI: 10.1037/0003-066x.55.5.469 [PubMed: 10842426]
- Bachrach CA, Morgan SP. A cognitive–social model of fertility intentions. *Population and Development Review*. 2013; 39(3):459–485. [PubMed: 25132695]

- Barber JS, Kusunoki Y, Gatny H. Design and Implementation of an Online Weekly Journal to Study Unintended Pregnancies. *Vienna Yearbook of Population Research*. 2011; 9:31–35. [PubMed: 26405439]
- Brückner H, Martin A, Bearman PS. Ambivalence and Pregnancy: Adolescents' Attitudes, Contraceptive Use and Pregnancy. *Perspectives on Sexual and Reproductive Health*. 2004; 36(6): 248–257. DOI: 10.2307/1520257 [PubMed: 15687083]
- Cacioppo JT, Berntson GG. The Affect System: Architecture and Operating Characteristics. *Current Directions in Psychological Science*. 1999; 8(5):133–137. DOI: 10.2307/20182585
- Casares WN, Lahiff M, Eskenazi B, Halpern-Felsher BL. Unpredicted Trajectories: The Relationship Between Race/Ethnicity, Pregnancy During Adolescence, and Young Women's Outcomes. *Journal of Adolescent Health*. 2010; 47(2):143–150. doi:<http://dx.doi.org/10.1016/j.jadohealth.2010.01.013>. [PubMed: 20638006]
- Duncan G, Hoffman S. Welfare benefits, economic opportunities, and out-of-wedlock births among black teenage girls. *Demography*. 1990; 27(4):519–535. DOI: 10.2307/2061568 [PubMed: 2249743]
- Edin, K., England, P., Shafer, EF., Reed, J. Forming Fragile Families: Was the Baby Planned, Unplanned, or In Between?. In: England, P., Edin, K., editors. *Unmarried Couples with Children*. New York: The Russel Sage Foundation; 2007.
- Edin, K., Kefalas, M. *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*. Los Angeles: University of California Press, Ltd; 2005.
- England P, Caudillo ML, Littlejohn K, Bass BC, Reed J. Why Do Young, Unmarried Women Who Do Not Want to Get Pregnant Contracept Inconsistently? Mixed-method Evidence for the Role of Efficacy. *Socius: Sociological Research for a Dynamic World*. 2016; 2 2378023116629464.
- England, P., McClintock, E., Shafer, EF. Birth Control Use and Early, Unintended Births: Evidence for a Class Gradient. In: Carlson, MJ., England, P., editors. *Social Sclass and Changing Families in an Unequal American*. Stanford: Stanford University Press; 2011. p. 21-49.
- Finer LB, Henshaw SK. Disparities in Rates of Unintended Pregnancy In the United States, 1994 and 2001. *Perspectives on Sexual and Reproductive Health*. 2006; 38(2):90–96. DOI: 10.1363/3809006 [PubMed: 16772190]
- Finer LB, Zolna MR. Unintended pregnancy in the United States: incidence and disparities, 2006. *Contraception*. 2011; 84(5):478–485. doi:<http://dx.doi.org/10.1016/j.contraception.2011.07.013>. [PubMed: 22018121]
- Gatny H, Cooper MP, Axinn William G, Barber JS. Using Debit Cards for Incentive Payments: Experiences of a Weekly Survey Study. *Survey Practice*. 2009; 11
- Geronimus AT, Korenman S. The Socioeconomic Costs of Teenage Childbearing: Evidence and Interpretation. *Demography*. 1993; 30(2):281–290. [PubMed: 8500641]
- Hayford SR. The evolution of fertility expectations over the life course. *Demography*. 2009; 46(4): 765–783. [PubMed: 20084828]
- Hayford SR, Morgan SP. Religiosity and Fertility in the United States: The Role of Fertility Intentions. *Social Forces*. 2008; 86(3):1163–1188. DOI: 10.1353/sof.0.0000
- Hogan DP, Kitagawa EM. The Impact of Social Status, Family Structure, and Neighborhood on the Fertility of Black Adolescents. *American Journal of Sociology*. 1985; 90(4):825–855. DOI: 10.2307/2779520
- Horwitz SM, Klerman LV, Kuo HS, Jekel JF. Intergenerational Transmission of School-Age Parenthood. *Family Planning Perspectives*. 1991; 23(4):168–177. DOI: 10.2307/2135740 [PubMed: 1936218]
- Jaccard J, Dodge T, Dittus P. Do adolescents want to avoid pregnancy? Attitudes toward pregnancy as predictors of pregnancy. *Journal of Adolescent Health*. 2003; 33(2):79–83. doi:[http://dx.doi.org/10.1016/S1054-139X\(03\)00134-4](http://dx.doi.org/10.1016/S1054-139X(03)00134-4). [PubMed: 12890598]
- Knight A, Chase E, Aggleton P. 'Someone of Your Own to Love': Experiences of Being Looked After as Influences on Teenage Pregnancy. *Children & Society*. 2006; 20(5):391–403. DOI: 10.1111/j.1099-0860.2006.00014.x

- Koenig MA, Acharya R, Singh S, Roy TK. Do current measurement approaches underestimate levels of unwanted childbearing? Evidence from rural India. *Population Studies*. 2006; 60(3):243–256. DOI: 10.1080/00324720600895819 [PubMed: 17060052]
- Levine JA, Emery CR, Pollack H. The Well-Being of Children Born to Teen Mothers. *Journal of Marriage and Family*. 2007; 69(1):105–122. DOI: 10.1111/j.1741-3737.2006.00348.x
- Luker K. The war between the women. *Family Planning Perspectives*. 1984; 16(3):105–110. [PubMed: 6468639]
- Miller WB, Barber JS, Gatny H. The effects of ambivalent fertility desire on pregnancy risk in young women in the United States. *Population Studies: A Journal of Demography*. 2012; doi: 10.1080/00324728.2012.738823
- Phipps MG, Salak JR, Nunes AP, Rosengard C. Career Aspirations and Pregnancy Intentions in Pregnant Teens. *Journal of Pediatric and Adolescent Gynecology*. 2011; 24(2):e11–e15. doi:<http://dx.doi.org/10.1016/j.jpog.2010.12.001>. [PubMed: 21256777]
- Plotnick RD, Hoffman SD. The effect of neighborhood characteristics on young adult outcomes: Alternative estimates. *Social Science Quarterly*. 1999; 80(1):1–18.
- Radloff LS. The CES-D Scale: A Self-Report Depression Scale for Research in the General Population. *Applied Psychological Measurement*. 1977; 1(3):385–401. DOI: 10.1177/014662167700100306
- Rindfuss RR. The Young Adult Years: Diversity, Structural Change, and Fertility. *Demography*. 1991; 28(4):493–512. DOI: 10.2307/2061419 [PubMed: 1769399]
- Rindfuss, RR., Morgan, SP., Swicegood, G. *First Births in America: Changes in the Timing of Parenthood*. Los Angeles: University of California Press, Ltd; 1988.
- Rosenberg, M. *Society and the Adolescent Self-Image*. Princeton: Princeton University Press; 1965.
- Ross CE, Mirowsky J. Sex differences in the effect of education on depression: Resource multiplication or resource substitution? *Social Science & Medicine*. 2006; 63(5):1400–1413. doi:<http://dx.doi.org/10.1016/j.socscimed.2006.03.013>. [PubMed: 16644077]
- Ross CE, Mirowsky J. Neighborhood Disorder, Subjective Alienation, and Distress. *Journal of Health and Social Behavior*. 2009; 50(1):49–64. DOI: 10.1177/002214650905000104 [PubMed: 19413134]
- Russell D, Peplau LA, Ferguson ML. Developing a Measure of Loneliness. *Journal of Personality Assessment*. 1978; 42(3):290–294. DOI: 10.1207/s15327752jpa4203_11 [PubMed: 660402]
- Stanley DJ, Meyer JP. Two-dimensional affective space: A new approach to orienting the axes. *Emotion*. 2009; 9(2):214–237. DOI: 10.1037/a0014612 [PubMed: 19348534]
- Stevens-Simon C, Sheeder J, Beach R, Harter S. Adolescent pregnancy: do expectations affect intentions? *Journal of Adolescent Health*. 2005; 37(3):243.e215–243.e222. doi:<http://dx.doi.org/10.1016/j.jadohealth.2005.01.007>.
- Thomson E. Couple Childbearing Desires, Intentions, and Births. *Demography*. 1997; 34(3):343–354. DOI: 10.2307/3038288 [PubMed: 9275244]
- Thomson E, McDonald E, Bumpass LL. Fertility Desires and Fertility: Hers, His, and Theirs. *Demography*. 1990; 27(4):579–588. DOI: 10.2307/2061571 [PubMed: 2249746]
- Whitehead E. Teenage pregnancy: on the road to social death. *International Journal of Nursing Studies*. 2001; 38(4):437–446. doi:[http://dx.doi.org/10.1016/S0020-7489\(00\)00086-9](http://dx.doi.org/10.1016/S0020-7489(00)00086-9). [PubMed: 11470102]
- Whitehead E. Understanding the association between teenage pregnancy and inter-generational factors: A comparative and analytical study. *Midwifery*. 2009; 25(2):147–154. doi:<http://dx.doi.org/10.1016/j.midw.2007.02.004>. [PubMed: 17600601]
- Williams L, Abma J, Piccinino LJ. The Correspondence Between Intention to Avoid Childbearing and Subsequent Fertility: A Prospective Analysis. *Family Planning Perspectives*. 1999; 31(5):220–227. DOI: 10.2307/2991569 [PubMed: 10723646]
- Wooldridge, JM. *Econometric analysis of cross section and panel data*. MIT press; 2010.
- Zabin, LS., Hayward, SC. *Adolescent Sexual Behavior and Childbearing*. Newbury Park: Sage Publications; 1993.

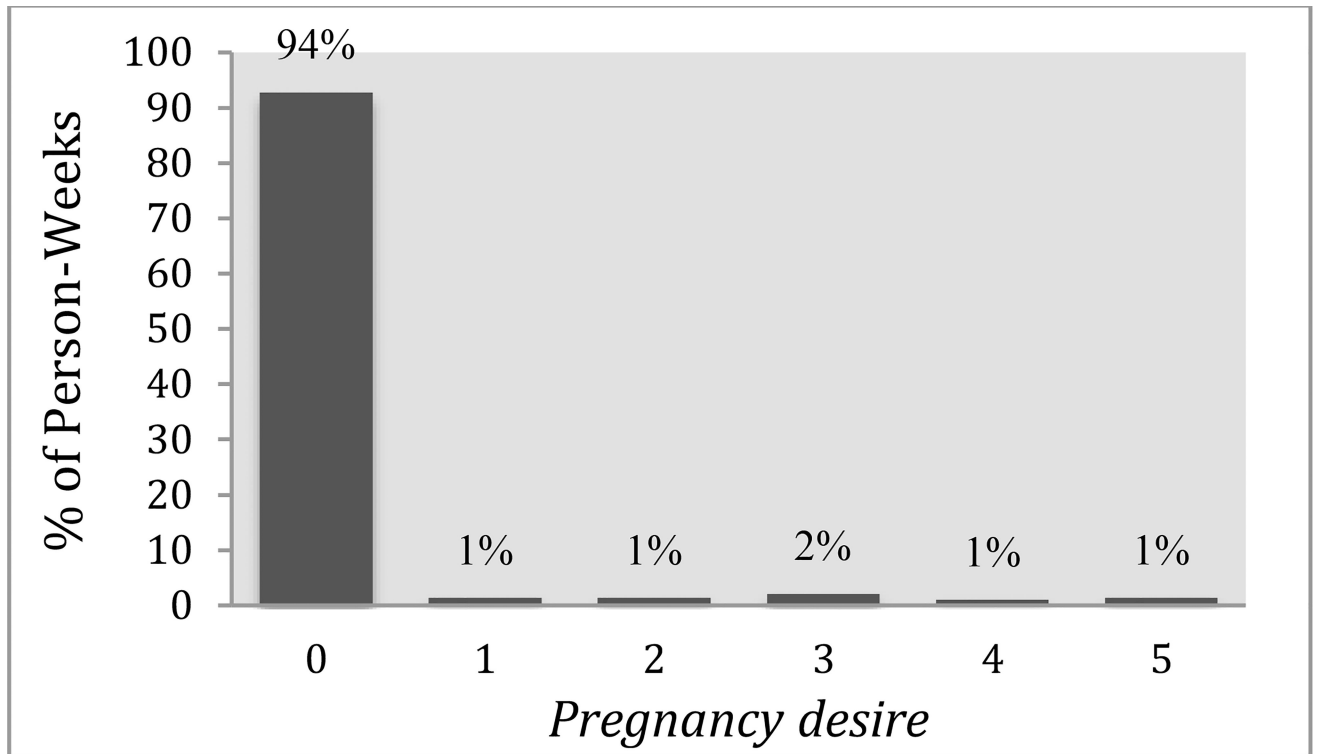


Figure 1.
Distribution of *Pregnancy Desire* in the Relationship Dynamics and Social Life Study, 200–2010 (n=25,142 person-weeks)

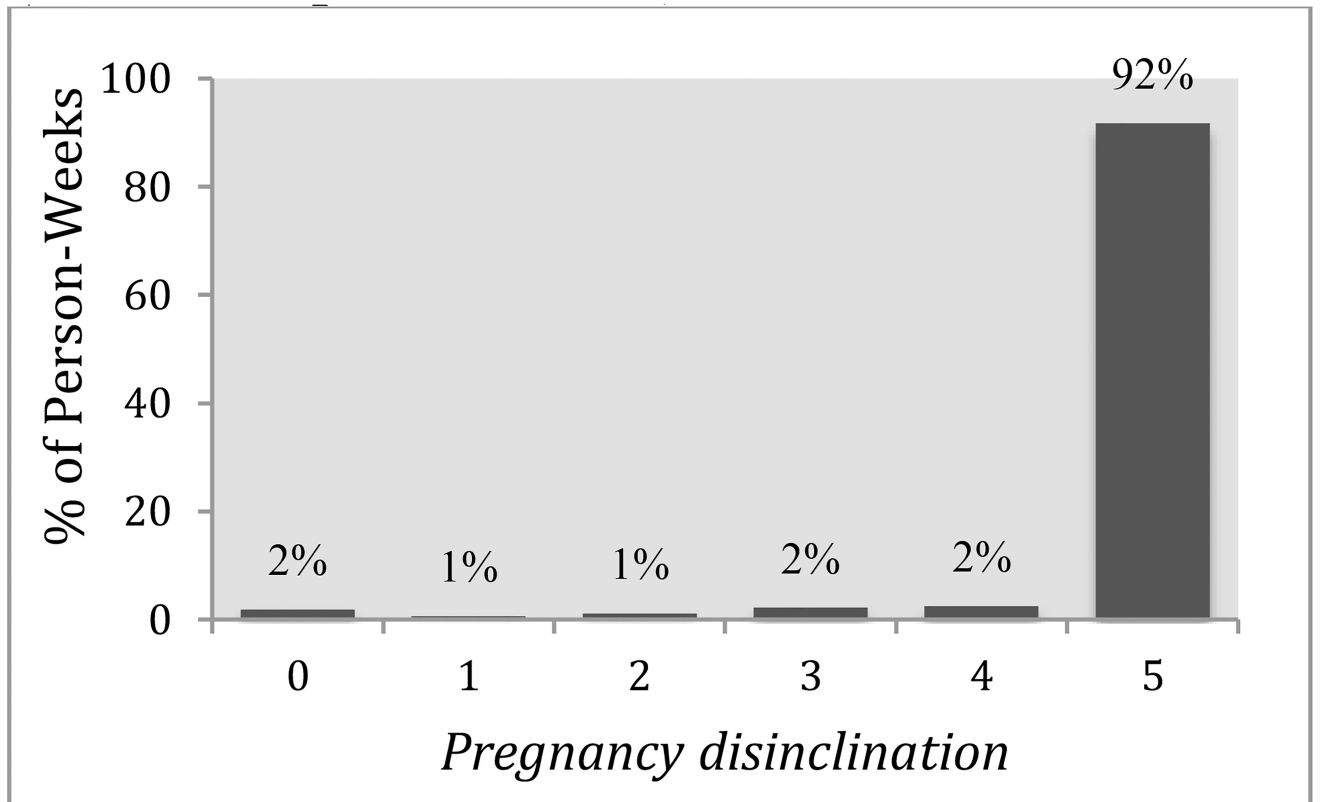


Figure 2.
Distribution of *Pregnancy Disinclination* in the Relationship Dynamics and Social Life Study, 2008–2010 (n =25,142 person-weeks)

Table 1

Descriptive Statistics from the Relationship Dynamics and Social Life Study, 2008–2010 (N =25,142 person-weeks from 875 women)

Variables	Mean	S.D.
<i>Dependent Variables</i>		
Any pregnancy desire (0/1)	.06	
Strongest disinclination (0/1)	.92	
Pregnancy desire (0–5)	.19	(.81)
Pregnancy disinclination (0–5)	4.79	(.83)
Categorical desire		
Anti-pregnancy	.91	
Indifferent	.02	
Ambivalent	.01	
Pro-pregnancy	.06	
<i>Predictors: Family Background & Race</i> (measured at baseline)		
Mother did not attend college	.37	
Mother <20 years at first birth (0/1)	.29	
Parents did not own their own home (0/1)	.24	
Received public assistance in childhood (0/1)	.30	
Receiving public assistance at baseline (0/1)	.16	
African American (0/1)	.28	
<i>Predictors: Social Environment</i> (measured at baseline)		
Religiosity (0/1)	.57	
Proportion of friends who have children (0–4)	1.06	(1.10)
Proportion of single mothers in community (0–4)	2.36	(.97)
Friends' approval of pregnancy (0–5)	1.82	(1.71)
Parents' approval of pregnancy (0–5)	1.01	(1.50)
<i>Predictors: Emotional Wellbeing</i> (measured at baseline)		
Depression (0–20)	4.58	(3.88)
Loneliness (0–16)	7.65	(1.33)
Self-esteem (0–15)	12.82	(2.49)
<i>Predictors: Education and Employment</i> (measured every 3 mos.)		
Education		
Enrolled in 4yr post-secondary	.40	
Enrolled in or graduated from 2yr post-secondary	.32	
High school graduate, not enrolled in post-secondary	.17	
Enrolled in high school	.08	
Dropped out of high school	.03	
Employment		
Employed, on career path	.39	
Employed, not on career path	.10	
Not employed	.51	

Variables	Mean	S.D.
<i>Predictors: Relationship Status (measured weekly)</i>		
Engaged	.07	
Special, spent time together	.33	
Special, did not spend time together	.16	
Non-special, spent time together	.02	
Non-special, did not spend time together	.03	
Not in a relationship	.39	

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Table 2

Coefficients from Bivariate Random Effects Regression Models Predicting Pregnancy Desires: Pregnancy Desire, Pregnancy Disinclination, Any Desire, and Strong Disinclination

	Linear		Logistic	
	Logged Pregnancy Desire	Logged Pregnancy Disinclination	Any Desire (vs. none)	Strong Disinclination (vs. <strongest)
	(1)	(2)	(3)	(4)
<i>Family Background & Race</i>				
Mother did not attend college	0.61 *	-0.64 *	0.04 *	-0.04 **
Mother <20 years at first birth	1.63 ***	-1.80 ***	0.08 ***	-0.05 ***
Parents did not own their own home	0.96 **	-0.98 **	0.06 *	-0.04 *
Received public assistance as a child	2.12 ***	-1.69 ***	0.13 ***	-0.08 ***
Receiving public assistance at baseline	2.06 ***	-2.24 ***	0.09 ***	-0.08 ***
African American	1.24 ***	-1.33 ***	0.03	-0.03 *
<i>Social Environment</i>				
Religiosity	-0.22	0.33	-0.05 *	0.04 **
Proportion of friends who have children	1.07 ***	-1.00 ***	0.05 ***	-0.04 ***
Proportion of single mothers in community	0.82 ***	-0.68 ***	0.03 **	-0.01 *
Friends' approval of pregnancy	0.63 ***	-0.55 ***	0.03 ***	-0.02 ***
Parents' approval of pregnancy	0.61 ***	-0.65 ***	0.04 ***	-0.03 ***
<i>Emotional Wellbeing</i>				
Depression (0–20)	0.28 ***	-0.29 ***	0.01 ***	-0.01 ***
Loneliness (0–16)	0.30 **	-0.21 *	0.01	0.00
Self-esteem (0–16)	-0.19 ***	0.24 ***	-0.01 *	0.01 **
<i>Education & Employment</i>				
Education (ref: enrolled in 4yr post-secondary)				
Enrolled or graduated 2-year post-secondary	0.10	-0.12	-0.01	0.00
Graduated high school, not enrolled	0.69 **	-0.71 ***	0.01 *	-0.00
Enrolled in high school	1.42 ***	-2.08 ***	0.04 ***	-0.06 ***
Dropped out of high school	1.15 ***	-1.57 ***	0.03 *	-0.06 ***
Employment (Ref: not employed)				
Employed, on career path	-0.48 *	0.80 ***	-0.02 *	0.02 *
Employed, not on career path	-0.30 *	0.58 ***	-0.01	0.01
<i>Relationship Status (Ref: not in a relationship)</i>				
Engaged	2.25 ***	-1.70 ***	0.11 ***	-0.06 ***
Special, spent time together	1.12 ***	-0.86 ***	0.03 ***	-0.01 **
Special, did not spend time together	0.85 ***	-0.66 ***	0.01 **	-0.00

	Linear		Logistic	
	Logged Pregnancy Desire	Logged Pregnancy Dis-inclination	Any Desire (vs. none)	Strong Dis-inclination (vs. <strongest)
	(1)	(2)	(3)	(4)
Non-special, spent time together	1.00***	-0.83**	0.03***	-0.01
Non-special, did not spend time together	0.11	-0.01	-0.01*	0.01*

Note: Each of the regression models includes N=25,142 person-weeks across 875 respondents from the Relationship Dynamics and Social Life Study, 2008–2010. The coefficients for each variable are derived from a separate model. Standard errors have been omitted from this table and are available upon request.

†
p<0.10,

*
p<0.05,

**
p<0.01,

p<0.001, one-tailed test

Table 3
Coefficients from Random Effects Logistic Regressions Predicting Pregnancy Desires: *Any Desire* and *Strongest Disinclination*

	<i>Any desire (versus none)</i>					<i>Strongest disinclination (versus <strongest)</i>						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>Family Background & Race</i>												
Mother did not attend college	0.02	-0.23	-0.02	-0.11	-0.01	-0.40	-0.02	0.28	0.02	0.15	0.00	0.49
Mother <20 years at first birth	1.05**	0.78*	0.92**	0.94**	0.92**	0.58*	-1.23***	-0.98**	-1.09***	-1.13***	-1.13***	-0.76**
Parents did not own their own home	-0.22	-0.30	-0.27	-0.30	-0.16	-0.29	0.14	0.17	0.21	0.22	0.09	0.23
Received public assistance as a child	1.54***	1.12***	1.39***	1.47***	1.48***	1.06**	-0.92**	-0.54*	-0.75*	-0.83**	-0.89**	-0.43
Receiving public assistance at baseline	1.25***	0.42	1.04**	1.02**	1.00**	0.12	-1.55***	-0.77*	-1.37***	-1.29***	-1.38***	-0.41
African American	0.39	0.12	0.26	0.38	0.52	0.34	-0.44	-0.35	-0.39	-0.43	-0.57*	-0.51
<i>Social Environment</i>												
Religiosity		-0.67*				-0.63*		0.81**				0.76**
Proportion of friends who have children		0.68***				0.49***		-0.61***				-0.42***
Proportion of single mothers in community		0.34*				0.25		-0.19				-0.12
Friends' approval of pregnancy		0.33***				0.28**		-0.19*				-0.15
Parents' approval of pregnancy		0.22*				0.20*		-0.34***				-0.32***
<i>Emotional Wellbeing</i>												
Depression (0–20)			0.22***			0.17***			-0.22***			-0.17***
Loneliness (0–16)			0.11			0.14			-0.03			-0.06
Self-esteem (0–16)			-0.00			-0.02			0.05			0.05
<i>Education & Employment</i>												
Education (ref: enrolled in 4yr post-secondary)				0.06		-0.08				-0.07		0.04
Enrolled or graduated 2-year post-secondary				0.70**		0.48*				-0.68**		-0.44*
Graduated high school, not enrolled				1.33***		1.06***				-1.90***		-1.65***
Enrolled in high school				1.01**		0.61*				-1.35***		-1.03***
Dropped out of high school												

	Any desire (versus none)						Strongest disinclination (versus <strongest)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Employment (Ref: not employed)												
Employed, on career path				-0.52*		-0.56*				0.59**		0.64**
Employed, not on career path				-0.01		-0.07						0.18
<i>Relationship Status</i> (Ref: not in a relationship)												
Engaged					2.23***	2.14***					-1.67***	-1.61***
Special, spent time together					1.13***	1.09***					-0.86***	-0.85***
Special, did not spend time together					0.86***	0.83***					-0.66***	-0.64***
Non-special, spent time together					1.00***	0.90***					-0.81**	-0.72**
Non-special, did not spend time together					0.12	0.10					-0.00	-0.00
Constant	-8.30***	-9.48***	-9.66***	-8.22***	-8.64***	-11.09***	7.41***	8.11***	7.74***	7.50***	7.79***	8.73***
Insig2u	3.10***	2.88***	2.94***	3.02***	2.92***	2.71***	2.99***	2.80***	2.87***	2.95***	2.89***	2.66***

Note: In all models, N=25,142 person-weeks across 875 respondents from the Relationship Dynamics and Social Life Study, 2008–2010.

Standard errors have been omitted from this table and are available upon request.

- ‡ p<0.10,
- * p<0.05,
- ** p<0.01,
- *** p<0.001, one-tailed tests