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No one to turn to: low social support and the incidence of undesired pregnancy in the United States

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Abstract

Objective: Young women may experience social barriers to achieving their reproductive goals. This analysis explored whether low social support may contribute to the high incidence of undesired pregnancy in young women in the United States.

Study Design: Using six months of data from a prospective cohort of 970 women ages 18–22 years in the United States, we described contraceptive use and applied multivariable logistic regression and standardization to estimate adjusted odds and absolute risk of undesired pregnancy among women reporting low social support versus higher social support. We investigated several measures of contraceptive use as possible explanations for this pathway.

Results: Sixty-five pregnancies were reported in the six months of the study, of which 30 (46%) were classified as undesired prior to conception. Among young women who reported low social support, 8% reported an undesired pregnancy during the study period as compared to 3% of the young women who reported higher levels of social support. Among non-black women, those who reported low social support had nearly seven times the odds of an undesired pregnancy as compared to women who reported higher social support (aOR: 6.8, 95%CI: 1.7, 27.1). We found no association between social support and undesired pregnancy among young black women. Contraceptive method use differed by social support at baseline, and throughout follow-up.

Conclusions: Low social support – defined as the feeling of not having anyone to turn to – may be a risk factor for persistently high levels of undesired pregnancy among young women in the U.S. This association may be driven by differences in contraceptive use by level of social support.

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Keywords

undesired pregnancy; unintended pregnancy; social support; contraception

Introduction

By the age of 20, one in three women in the United States will experience at least one pregnancy,[1] and over 80 percent of these will be unintended.[2, 3] The vast majority of unintended pregnancies in the United States are associated with inconsistent, incorrect or non-use of contraceptives.[4] A continuing focus of study is why people – young people in particular – are not using contraception consistently, or correctly. Partial explanations include lack of access, physical concerns about side effects, method dissatisfaction, misconceptions about fertility risk [5–7] difficulty negotiating use with a partner, substance use, reproductive coercion, and ambivalence about pregnancy.[8–10]

Drawing on research that posits that differences in the risk of early pregnancy across demographic groups reflect social, rather than biological or other, differences [11], we explored the role of social support in the risk of *undesired* pregnancy. Our focus on undesired, rather than unintended pregnancy, reflects the ongoing evolution of the understanding of people’s feelings about pregnancy.[12] While an “unintended” pregnancy is defined in terms of an individual’s explicit fertility plans at the time of conception, an alternative framework focuses on a person’s desire for (positive), and desire to avoid (negative), pregnancy.[13, 14] Focusing on an individual’s desire for pregnancy - rather than on timing-based plans - may align more closely with how people think about pregnancy, particularly in early adulthood when many young individuals may not have formulated a fertility plan.

Although definitions vary, “social support” generally refers to the tangible and intangible forms of assistance that people provide for one another, such as information or expressions of caring. Socially supportive networks have been shown to facilitate health-related behaviors.[15–17] In particular, several previous studies have found a positive association between social support, conceptualized in a variety of ways, and contraceptive use.[18–22] While this prior research focused largely on normative and perceived social support for contraceptive use, we extended this research to explore whether perceived social support is associated with undesired pregnancy among young people. We hypothesized that the incidence of undesired pregnancy would be higher for individuals who reported low social support at baseline as compared to individuals who reported more support. This hypothesis rests on the theory that a more supportive social network may increase a young person’s sense of confidence and self-worth, which in turn may empower the individual to seek reproductive health information and to act on it, potentially including contraceptive use, thereby decreasing the risk of undesired pregnancy.

Material and Methods

Sample and Procedures

We analyzed data from the Relationship Dynamics and Social Life (RDSL) Study, a population-based study of 1,003 young people ages 18–22 years in Michigan conducted between 2008 and 2012. Investigators designed the study to prospectively investigate the influence of behavioral, attitudinal and contextual aspects of relationships, contraceptive use, and activities that compete with childbearing, on the occurrence of undesired pregnancy during the transition to adulthood[23–26]. Within RDSL, recruitment focused only on individuals who self-identified as “female”; thus, throughout this manuscript, we use the words “woman/women” and the pronouns “she/her” to refer to study participants, although we acknowledge that some individuals who do not identify as a woman or female are capable of pregnancy.

Following an initial baseline RDSL interview, 99% of women (n=992) participated in weekly phone or Internet surveys that captured information on attitudinal and behavioral measures of pregnancy, relationships, and contraceptive use over two and a half years. To reduce non-response and attrition, study managers offered participants multiple incentives, including: payment for completed journals, additional payment for on-time journals, tokens of appreciation (e.g., pen, compact, lip balm), and regular reports of study findings.[23] Eighty-four percent of baseline participants remained in the study six months after baseline. [27] Socio-demographic characteristics of continuing and drop-out participants did not differ, with the exception of individuals who reported two or more prior pregnancies at baseline and individuals who reported having a mother who gave birth before age 20. Respectively, these individuals participated for approximately 50 and 90 days fewer on average, than did individuals without these characteristics (p 0.05).[23] More details on study design and implementation can be found elsewhere.[28] The Institutional Review Boards of the University of Michigan (study #: HUM00014150) and the University of California, San Francisco (study #: 14–13501) approved this study.

Measures

We measured the exposure, perceived social support,[29] in the baseline interview using the following question: “*How often do you feel that there are people you can turn to? Would you say never, almost never, sometimes, fairly often, or very often?*” We selected this measure to capture emotional support, one of the four key dimensions of social support, defined as “the availability of one or more persons who can listen sympathetically when an individual is having problems and can provide indications of caring and acceptance.”[15] However, we acknowledge the possibility that some participants may have interpreted this question to refer to other forms of social support beyond emotional support, such as tangible or informational support. Due to small numbers of respondents in some categories, responses were collapsed into a binary indicator of low social support – “low” for those women reporting “never” or “almost never” having someone they can turn to, and “higher” for those reporting “sometimes”, “fairly often” or “very often”. Participants responded to a measure of social support at baseline only.

We defined the primary outcome, undesired pregnancy, using a combination of women's self-report of a new pregnancy and prospective responses to the positive and negative desire for pregnancy scales asked at baseline and each week thereafter. Each week, women were asked to report if they were "probably" or "definitely" pregnant, and if this pregnancy had been confirmed by a home or clinic pregnancy test. For participants reporting a definite pregnancy, responses to the positive and negative desire for pregnancy scales were taken from two journals prior (approximately two weeks prior) to the first report of the new pregnancy, to capture desire for pregnancy near the time of conception. The positive desire for pregnancy scale asks: *"How much do you want to get pregnant during the next month? Please give 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."* The corresponding negative scale asks: *"How much do you want to avoid getting pregnant during the next month? Please give 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."* We created a binary indicator for undesired pregnancy that flagged a pregnancy as undesired if a woman responded between 0 and 2 on the positive desire to get pregnant (low desire for pregnancy) and between 3 and 5 on the desire to avoid pregnancy scale (high desire to avoid pregnancy). We include pregnancies occurring in the first six months only, due to a concern that the exposure (social support) measured at baseline, might no longer be an accurate reflection of perceived social support more than six months later, particularly given the socially fluid early adulthood years in which this study took place. Extending the study beyond six months might have introduced substantial misclassification into our measure of exposure and potentially diluted the association with the outcome, if one existed. For sensitivity analyses, however, we considered pregnancies that occurred in the first 12 months of the study, and also constructed a secondary, more inclusive definition of undesired pregnancy that categorized anyone that reported a non-zero desire to avoid pregnancy *and* anything but the strongest desire for pregnancy as undesired (only 0 on desire to avoid pregnancy and 5 on desire for pregnancy were considered "desired").

We measured the secondary outcome, contraceptive use – a potential mediator on the pathway between social support and undesired pregnancy – both at baseline and weekly at each journal. Participants reported any use of contraception, as well as the method used, both at baseline and in weekly journals. With these data, we created three binary outcome variables: (1) any use of contraception versus no use of contraception post-baseline in the six-month study period; and (2) any use of "hormonal" methods (intra-uterine device, implant, injection, ring, patch, or pills) versus coital-specific methods (barrier methods or withdrawal) post-baseline in the six-month study period for individuals who reported any contraceptive use; and (3) "consistent" use of contraception (reported use of contraception for each reported sex act) post-baseline in the six-month study period for individuals who reported any contraceptive use.

Other variables measured via self-report in the baseline interview and used in these analyses include age (continuous), childhood family structure (two-parent household versus other), employment (employed versus not), education (enrolled in school versus not), race (black versus non-black), and relationship status (being in any physical or emotional relationship, marriage, engagement, or other special romantic relationship, versus not). Additionally, we

examined data from baseline measures of sexual activity, including self-reported age at first sex of 16 years, two or more sexual partners, and ever having had sex without birth control.

Analyses

We excluded 22 participants from analyses due to missing data for exposure, resulting in an analysis dataset of n=970 for the main outcome: undesired pregnancy. An additional 78 individuals did not report data for contraceptive use in the first six months, resulting in a sample of n=892 for the analysis of any contraceptive use, and a sample of n=888 for the analysis of contraceptive method type and consistency of use. All analyses were conducted in Stata version 14.2. We first described sample characteristics and average number of weeks of each type of contraceptive method by level of social support, and assessed balance using t- and chi-square tests as appropriate.

Using a logistic regression model, we assessed the unadjusted and adjusted associations between low social support and (1) the use of any contraception, (2) the use of hormonal versus coital-specific methods among contraceptive users, (3) the consistent versus inconsistent use of contraception among contraceptive users, and (4) the incidence of undesired pregnancy. Variables were selected for inclusion in all models based on *a priori* beliefs about their confounding influence on the relationship between exposure and outcome. The final models included the following variables: age, childhood family structure, employment, education, race, and relationship status. We checked for non-linearity in the continuous covariate (age), and also for omitted interactions between exposure and confounders using Wald tests. The extent of model misspecification was assessed with the Hosmer-Lemeshow and Pearson-Windmeijer tests.

In a final step, we used standardization to estimate adjusted absolute risk of undesired pregnancy and risk differences according to level of social support. Given that social support was not randomly distributed in this population and was causally influenced by several confounders, we calculated the average treatment effect within levels of these confounders, and then combined these averages weighted by the distribution of the confounders in the population to estimate the average treatment effect (ATE). Stata's 'margins' command generated a 95% confidence interval for this estimate.

Sensitivity Analyses

Given the small number of undesired pregnancies that occurred during the first six months (n=30), we ran a more parsimonious model with only the two strongest confounders (race and relationship status) and used exact logistic regression to test the robustness of results. We also reran the model using more flexible definitions for both exposure and outcome (described above in the Measures section) over both a six-month and twelve-month period to explore the joint impact of changing the definition of the exposure and/or outcome, and expanding the time horizon.

Results

Sample Characteristics

At study baseline, the mean age was 19 years, with all participants ranging between 18–20 years of age (Table 1). Approximately half of respondents grew up in a two-parent household, and half were currently employed. Most women (70%) were enrolled in school. Thirty-three percent of young women identified as black, and the rest primarily identified as white (97% of non-black women identified as white). Many women (73%) were in some type of intimate relationship at baseline.

Regarding social support, 51 young women (5%) reported never or almost never having someone to whom they could turn. The distribution of key confounders was balanced across social support groups, with the exception of race and enrollment in school (Table 1). Black women were nearly twice as likely to report low social support as compared to non-black women (8% versus 4%, $p=0.02$). Baseline measures of sexual activity also differed by social support (Table 1). Young women who reported lower levels of social support were more likely to report having had sex before the age of 16 years, having had two or more sexual partners, and ever having had sex without birth control.

Contraceptive use

At baseline, most participants had used contraception previously (76%), and a majority was currently using a form of contraception (71%). With regard to specific method type, the distribution of methods used differed by social support (Table 1).

In the six months following baseline, all but four participants used at least some form of contraception: 96% of individuals reporting low social support and 91% of individuals reporting higher social support (p -for-difference=0.10), and contraceptive use was reported in 88% of weekly journals. Among those participants using contraception, a majority relied on hormonal methods as opposed to coital-specific at some point in the study period: 71% of low social support individuals and 60% of higher social support individuals (p -for-difference=0.20). Overall, hormonal methods were reported in 65% of weekly journals.

Due to a detected interaction between social support and race, we included an interaction term in our multivariable models and report results separately for black and non-black women. Among non-black women, women with low social support had only half the odds of using any contraception over six months as compared to women with higher social support (aOR: 0.5, 95%CI: 0.3, 0.9; Table 2). Conversely, among black women, the odds of any contraceptive use were three times *higher* among individuals with low social support, as compared to black women with higher social support (aOR: 3.2, 95%CI: 1.5, 7.0; data not shown). We found no association between low social support and use of hormonal methods of contraception, or low social support and consistent use of contraception in the six months of follow-up (Table 2).

Undesired pregnancy

In the six months of the study, 62 women reported 65 pregnancies (3 women reported 2 pregnancies). Among these 65 pregnancies, we classified 30 (46%) as undesired; 16 of these undesired pregnancies occurred to black women, and 14 to non-black women. Of the 30 undesired pregnancies, 4 occurred to women with low social support, and 26 to women with higher levels of support.

As with the models for contraceptive use, we report results separately for black and non-black women due a detected interaction between race and social support. Among non-black women, those who reported low social support had more than six times the odds of an undesired pregnancy over six months as compared to non-black women who reported higher social support (aOR: 6.8, 95%CI: 1.7, 27.3). In contrast, there was no association between low social support and undesired pregnancy among black women (aOR: 0.6, 95%CI: 0.1, 5.1; p for global test of interaction=0.02). Among women who reported higher social support, the odds of an undesired pregnancy for black women were nearly three times that for non-black women (aOR: 2.8, 95%CI: 1.2, 6.5).

Standardization results suggest that if all women in the sample were to have low social support, we would expect to see a cumulative incidence of undesired pregnancy of 8.1% over six months. In contrast, if all women had higher social support, we would expect to see a risk of undesired pregnancy of 2.9% over those same six months. Assuming no unmeasured or residual confounding and correct model fit, improving young women's access to social support could potentially reduce the average risk of undesired pregnancy by 5.2% over six months – however, this estimate of the average treatment effect includes the null value of 0% change (95%CI: -2.8%, 13.3%). After stratifying by race, the average treatment effect estimates of low social support on absolute risk of undesired pregnancy similarly included the null value of 0% change (black women: -1.8%, 95%CI: -8.7, 5.1; non-black women: 10.8%, 95%CI: -3.9, 25.5).

The associations between social support, race and undesired pregnancy were robust across sensitivity analyses, although of varying magnitude and precision (Table 3).

Discussion

In this exploratory study, we found that low social support was associated with the occurrence of undesired pregnancy among young, non-black women. No association was found among young black women. Our analysis of the absolute risk difference in undesired pregnancy by perceived social support was inconclusive. Contraceptive use in the sample was high. Contraceptive methods used at baseline differed by social support, as did use of any contraception post-baseline. Non-black women with low social support were less likely to use any form of contraception in a given week as compared to non-black women that reported higher levels of social support – while the inverse was true for black women.

We hypothesized that social support might empower young people to obtain and use contraception, which would lower the risk of undesired pregnancy. We found that support for this hypothesis varies by race. Among non-black women, low social support was associated

with lower odds of using any contraception post-baseline, and with increased odds of undesired pregnancy. These findings are consistent with our hypothesis, and with several studies that have been published on social support and contraceptive use. [18–22] While we are not aware of prior studies on social support and undesired pregnancy, it is possible that for those women with low social support, some may be more open to an unintended or undesired pregnancy because of the opportunity for love, care and attention that a pregnancy and baby would bring from their partner, friends, and family[30] – social support that they lack, and perhaps desire, at the time of conception.

However, it is important to note that our findings among black women differ substantially from those among non-black women. As mentioned above, these exploratory results indicate an interaction between race and social support: while black women were more likely to report low social support, low social support was inversely associated with contraceptive use among black women, and with undesired pregnancy only among non-black women. While this interaction should be interpreted very cautiously due to the small number of undesired pregnancies in this study, evidence for racial differences in the influence of social support has been documented elsewhere in the reproductive health literature. One study of the influence of social support on smoking during pregnancy found that tangible social support had much more of an impact for black women, while the more emotional, perceived availability of others with which to share experiences was more consequential for white women.[31] Given that our exposure aimed to measure emotional social support (although participants may have responded based on perceptions of broader social support), these findings may partially explain why we see a relationship among non-black, primarily white women, but not among black women. Other studies have found similar results where an interaction between race and social support reveals a strong association between whites and the outcome of interest, but not among blacks.[32] Some investigators posit that this paradox could be explained by the reality that blacks are disproportionately represented in low socioeconomic strata, are more likely to be discriminated against, and thus to experience chronic stressors.[32–34] If blacks are more likely than whites to experience these constant stressors, the mitigating influence of social support, on average, may not be enough to overcome these obstacles.[32] In the context of family planning, these stressors could include differential access to family planning services, mistrust in and mistreatment by health care providers, and poor quality sex education.[35, 36] Due to the limited number of undesired pregnancies in this study, additional work with a larger sample size and more detailed exposure measure are necessary to further explore this hypothesis.

While the RDSL study is one of the largest and most comprehensive datasets available in which to investigate undesired pregnancy in early adulthood, the limitations of this analysis stem from the fact that social support was not a primary research focus for the larger RDSL study. Consequently, we did not have time-updated measures of exposure. In an attempt to limit the potential misclassification induced by change in social support over time, we restricted our analysis to the first six months of data. Results from the sensitivity analyses suggest that the relationship is consistent over time, albeit diluted after twelve months. Further, to the best of our knowledge, no psychometric data on the reliability of our measure of social support used in isolation has been reported. Depending on its ability to classify individuals with low social support, our results could be biased either towards or away from

the null. Similarly, the measurement of undesired pregnancy is a relatively new measure that does not capture all elements of a person's attitudes toward pregnancy, and its relationship to post-conception acceptability of a pregnancy is unknown. If either the exposure or the outcome measures perform differently in different racial groups, this could be one factor contributing to the identified race interaction.

The strengths of this analysis, however, included the use of a pre-conception measure of pregnancy desire that was unbiased by subsequent emotions about the pregnancy. Further, this is the first study, to our knowledge, to prospectively measure social support and the incidence of undesired pregnancy among young women, and as such, offers a unique contribution to the literature. This analysis is further strengthened by use of a causal method (standardization) to explore the primary research question, an analytic approach not often utilized in the family planning literature.

Conclusion

The findings presented here suggest a link between lower social support, contraceptive use, and undesired pregnancy in early adulthood. Given the exploratory nature of this study, future work should be designed to test these relationships explicitly in a larger, more diverse sample, with time-updated and more nuanced measures of social support. Particular attention should be paid to variations in perception and receipt of social support by racial identity. If additional research replicates the findings presented here, social support interventions could be designed and tested to assess impact on contraceptive use and undesired pregnancy. Given the persistently high incidence of unplanned pregnancy among young people in the United States and a stated goal in reducing its occurrence, this could be a significant contribution to family planning efforts nationwide.

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Implications

Interventions to increase young women’s perceptions of social support may reduce the risk of undesired pregnancy for some individuals.

Table 1.

Individual characteristics of 970 young women enrolled in the Relationship Dynamics and Social Life Study, conducted in 2008–2010 in Michigan, stratified by level of social support at baseline.

Individual Measures	Low Emotional Support (N=51)	Higher Emotional Support (N=919)	P-Value for difference
<i>Sociodemographic characteristics</i>	<i>n (%)</i>	<i>n (%)</i>	
Age			0.86
18 years	17 (33)	376 (41)	
19 years	33 (65)	452 (49)	
20 years	1 (3)	91 (10)	
Black	25 (49)	299 (33)	0.02
Non-Black	26 (51)	620 (67)	
Grew up with two parents in home	23 (45)	488 (53)	0.27
Currently enrolled in school	27 (53)	649 (71)	0.01
Currently employed	23 (45)	463 (50)	0.46
In a relationship	43 (84)	668 (73)	0.07
<i>Contraceptive use</i>			
Ever used contraception	42 (82)	690 (75)	0.25
Current contraception use	30 (59)	458 (50)	0.09
Current method used			0.01
Rhythm	3 (10)	46 (10)	
Pills	11 (37)	275 (60)	
Patch	2 (7)	8 (2)	
Ring	2 (7)	8 (2)	
Depo	6 (20)	50 (11)	
Implant	2 (7)	6 (1)	
IUD	0 (0)	12 (3)	
Other	4 (13)	53 (12)	
<i>Sexual & reproductive history</i>			
Age at first sex 16 years	41 (80)	456 (50)	<0.01
2 sex partners by age 18/19	39 (76)	534 (58)	0.01
Sex w/o birth control by age 18/19	35 (69)	423 (46)	<0.01

Table 2.

Association between low social support and three distinct measures of contraceptive use over six months of follow-up among 892 young women in the Relationship Dynamics and Social Life study, conducted in 2008–2010 in Michigan. The table presents odds ratios and 95% confidence intervals from logistic regression models.

	<i>Model 1: Any contraceptive use (n=35,404 weeks)</i>		<i>Model 2: Hormonal method use (n=31,326 weeks)</i>		<i>Model 3: Consistent use (n=31, 323 weeks)</i>	
	Odds Ratio	95% CI	Odds Ratio	95% CI	Odds Ratio	95% CI
Low emotional support (ref: higher support)	0.5	0.3, 0.9	1.0	0.4, 2.1	1.2	0.6, 2.5
Race/ethnicity (ref: non-black)						
Black	1.0	0.6, 1.5	0.7	0.5, 0.9	0.7	0.5, 0.9
Interaction term						
Black x Low emotional support	8.3	2.7, 25.8	0.8	0.3, 2.8	0.9	0.3, 2.7

All models include an interaction term between low social support and race, and are further adjusted for age, family structure, school, employment, and relationship status.

Model 1: Outcome is use of any contraceptive method in each week after baseline.

Model 2: Outcome is use of a hormonal method of contraception (versus coital-specific method) in each week contraceptive use was reported

Model 3: Outcome is consistent (versus inconsistent) contraceptive use in each week that contraceptive use was reported.

Results from sensitivity analyses exploring an expanded definition of the outcome (undesired pregnancy), over a longer time span (6 months versus 12 months) among 970 women enrolled in the Relationship Dynamics and Social Life Study, conducted in 2008–2010 in Michigan.

Table 3.

	Pregnancies in first 6 months			Pregnancies in first 12 months		
	Primary [^] definition of “Undesired” Pregnancy n=30	More inclusive ^{^^} definition of “Undesired” Pregnancy n=42	Primary definition of “Undesired” Pregnancy n=51	More inclusive ^{^^} definition of “Undesired” Pregnancy n=67	aOR	95% CI
Low emotional support (ref: higher support)	6.8 (1.7, 27.3)	3.9 (1.0, 14.6)	4.0 (1.2, 13.2)	2.7 (0.8, 8.6)		
Race/ethnicity (ref: white)						
Black	2.8 (1.2, 6.5)	1.8 (0.9, 3.6)	1.8 (0.9, 3.5)	1.2 (0.7, 2.2)		
Interaction term						
Black x Low emotional support	0.1 (0.0, 1.1)	0.1 (0.0, 1.4)	0.2 (0.0, 1.6)	0.3 (0.0, 1.9)		
Age, yrs	0.9 (0.5, 1.8)	0.9 (0.5, 1.5)	0.9 (0.5, 1.5)	0.8 (0.5, 1.2)		
Childhood Family Structure (ref: less than 2 parent home)	0.9 (0.4, 1.9)	0.6 (0.3, 1.1)	1.1 (0.6, 2.1)	0.8 (0.5, 1.3)		
Currently enrolled in school	0.8 (0.4, 1.8)	0.8 (0.4, 1.5)	0.7 (0.4, 1.3)	0.8 (0.5, 1.4)		
Currently employed	0.9 (0.4, 2.0)	1.0 (0.5, 1.8)	0.9 (0.5, 1.7)	0.9 (0.5, 1.5)		
In heterosexual relationship	10.7 (1.4, 79.7)	7.4 (1.8, 30.8)	9.2 (2.2, 38.5)	8.3 (2.6, 26.8)		
Overall p-value for race by social support interaction	0.02	0.13	0.07	0.39		

[^] “Primary” definition of undesired pregnancy = We created a binary indicator for undesired pregnancy that flagged a pregnancy as undesired if a woman responded between 0 and 2 on the positive desire to get pregnant (low desire for pregnancy) and between 3 and 5 on the desire to avoid pregnancy scale (high desire to avoid pregnancy). We use women’s responses to these scales from the week in which the pregnancy was conceived

^{^^} More inclusive definition of undesired pregnancy = Any non-zero desire to avoid *and* anything but the strongest desire for pregnancy is undesired (i.e., only 0 on desire to avoid pregnancy and 5 on desire for pregnancy are considered “desired”).