

# Pregnancy Desire Among a Sample of Young Couples Who Are Expecting a Baby

By Heather Sipsma, Anna A. Divney, Linda M. Niccolai, Derrick Gordon, Urania Magriples and Trace S. Kershaw

Heather Sipsma was associate research scientist at the time this article was written, and Linda M. Niccolai and Trace S. Kershaw are associate professors of epidemiology—all at Yale School of Public Health, New Haven, CT. Anna A. Divney is a doctoral candidate at the City University of New York School of Public Health. Derrick Gordon is assistant professor and assistant clinical professor of psychiatry, and Urania Magriples is associate professor of obstetrics, gynecology and reproductive sciences, and co-director of maternal-fetal medicine clinical practice—both at Yale School of Medicine, New Haven, CT.

**CONTEXT:** Adolescents' desire for a pregnancy has been explored more among females than among males. A more comprehensive understanding of teenagers' pregnancy desires is needed to inform pregnancy prevention efforts and to support couples as they undergo the transition to parenthood.

**METHODS:** In an observational cohort study conducted in 2007–2011 at clinics in Connecticut, data were collected from 296 couples (females aged 14–21 and their partners) who were expecting a baby. The degree to which each partner had wanted the pregnancy and partners' perceptions of each other's pregnancy desires were assessed. Multilevel regression models examined associations between pregnancy desire and individual, partner, family and community characteristics, and between desire and life and relationship satisfaction.

**RESULTS:** Forty-nine percent of females and 53% of males reported having wanted the pregnancy. Pregnancy desire scores were positively associated with being male, expecting a first baby, perceived partner desire and parental response to the pregnancy; scores were negatively associated with being in school, being employed and parental support. Females' perceptions of their partners' pregnancy desires were slightly more accurate than males' (kappas, 0.36 and 0.28, respectively). Pregnancy desire was positively associated with both life and relationship satisfaction, particularly among males.

**CONCLUSIONS:** Adolescents' pregnancy desires require further attention as a possible focus of pregnancy prevention efforts, and health care providers may want to ensure that young couples with unwanted pregnancies are offered additional psychological and social services as they transition to parenthood.

*Perspectives on Sexual and Reproductive Health, 2012, 44(4):244–251, doi:10.1363/4424412*

Each year in the United States, an estimated 70 pregnancies occur per 1,000 women aged 15–19.<sup>1</sup> In 2009, approximately 410,000 babies were born to mothers in this age-group.<sup>2</sup> These young mothers, and their babies' fathers, tend to have more limited educational attainment and economic opportunities than their peers who delay childbearing.<sup>3–5</sup> Furthermore, adolescent parenthood tends to preserve socioeconomic disadvantages by perpetuating intergenerational cycles of young childbearing.<sup>6,7</sup> Nevertheless, the literature suggests that among some subgroups, up to 24% of nonpregnant adolescents want to become pregnant, and up to 64% of pregnant adolescents had some desire to conceive.<sup>8–10</sup> Understanding the degree to which adolescents desire pregnancy, and the characteristics associated with that desire, is a critical step toward designing effective pregnancy prevention interventions and meeting the needs of young couples who find themselves facing pregnancy and parenthood.

## BACKGROUND

Not surprisingly, wanting to become pregnant (as distinct from planning or trying to) has been associated with sexual risk behaviors among young females. In a cohort of black females aged 14–18, pregnancy desire was linked

to inconsistent contraceptive use at baseline and at six months.<sup>11,12</sup> In a more diverse population of adolescent females, pregnancy desire at baseline predicted pregnancy occurrence over 18 months.<sup>10</sup> These findings suggest that young women who have some desire to become pregnant may be placing themselves at risk not only for pregnancy, but also for STDs, including HIV, by not using barrier contraceptives.

Pregnancy desire among adolescent males, however, is less understood. Although a link between a male partner's pregnancy desire and pregnancy has been suggested, few studies have examined this association.<sup>13–15</sup> In a prospective study of low-income black adolescent females, participants' perception that their partner wanted a pregnancy was associated with a 27% increase in their odds of becoming pregnant.<sup>13</sup> Another analysis, also based on females' perceptions of their partners' desires, suggested that males are more likely than their adolescent female partners to feel positively about pregnancy.<sup>14</sup> However, the accuracy of partners' perceptions of each other's feelings about pregnancy is unknown. As researchers continue to call for dyadic approaches to sexual risk prevention,<sup>16,17</sup> it is essential to better understand the role of males' pregnancy desire, as well as the accuracy of their partners' perception of that desire.

Although pregnancy desire has been associated with individual and dyadic or partner characteristics (e.g., social, demographic and behavioral characteristics, partner's age and relationship duration),<sup>8–11,14,15</sup> little research has examined possible associations with characteristics of an adolescent's family, peers and community. Family characteristics may be particularly important, because adolescents are often emotionally and financially dependent on their families of origin. Low family support, for instance, has been correlated with having some desire for pregnancy among low-income black adolescents,<sup>9</sup> but it is not clear if this finding applies to other races and ethnicities or if the correlation remains after characteristics from other domains are accounted for. Adolescents' pregnancy desire may be associated with whether their mother or father had a teenage pregnancy experience, because such experience has been linked with adolescents' pregnancies.<sup>6,7</sup> In addition, parental expectations or the anticipated response of parents may influence whether an adolescent engages in risky behavior,<sup>18,19</sup> and thus may be linked to pregnancy desire as well; more negative anticipated responses may be associated with less engagement in risky behaviors and lower pregnancy desire.

Peer norms and community characteristics that suggest a lack of opportunities for options other than parenthood may be related to pregnancy desire.<sup>20</sup> Because peer norms of risky behavior have been linked to increased rates of pregnancy involvement among females and males,<sup>6,7</sup> individuals with peers who have had babies may have heightened pregnancy desire. Furthermore, communities with low social capital and relatively high levels of instability and crime tend to have increased adolescent pregnancy rates,<sup>21–23</sup> which suggests that these characteristics could also be linked to norms of pregnancy in adolescence. This body of research supports a conceptual framework that accounts for multiple levels of interaction, such as Bronfenbrenner's ecological model.<sup>24</sup>

When young women become pregnant, their and their partners' pregnancy desires may affect psychological health and relationship stability. Specifically, adolescent expectant parents who had not wanted a pregnancy may be at risk of experiencing reduced levels of life and relationship satisfaction. In several studies of nonadolescent pregnant women, those who wanted to conceive tended to experience less psychological distress than those who did not want to get pregnant.<sup>25–27</sup> This link is particularly critical given that, if left untreated, poor maternal psychological health may negatively affect maternal-infant attachment,<sup>28</sup> the emotional and social development of the toddler,<sup>29</sup> and the stability of the mother's relationship with the infant's father.<sup>30</sup>

Pregnancy desire may also be related to relationship satisfaction, which is especially important for couples expecting a baby. Low relationship satisfaction can lead to relationship instability and poor family functioning. Strong relationships between the mother and father have been shown to positively influence the mother-child relationship, buffer negative effects of stress, and thus lower the risk of child abuse and neglect and improve

child outcomes, including emotional and behavioral development.<sup>31–34</sup> Yet the association between pregnancy desire and life or relationship satisfaction is unclear, particularly among adolescent males.<sup>35,36</sup>

## THE CURRENT STUDY

First, we assess young couples' pregnancy desire, measured retrospectively, and determine which characteristics are associated with this desire. We examine characteristics from levels of the individual, dyad, family, and peer and community in Bronfenbrenner's ecological model<sup>24</sup> that have been linked to pregnancy desire or adolescent pregnancy. We believe that this model provides a strong theoretical foundation for understanding pregnancy desire, as it has been used previously to study sexual risk behaviors among adolescents.<sup>37,38</sup> We also believe its use will facilitate a greater understanding of pregnancy desire, which is necessary for guiding interventions aimed at young couples.

Second, we assess the accuracy of adolescents' perceptions of their partners' pregnancy desire, since we hypothesize that this is an important part of an individual's desire. This investigation will help to inform the validity of this measure for future studies.

Finally, we examine the associations between pregnancy desire and life and relationship satisfaction. These findings could assist health care providers in identifying young expectant couples who may need additional resources as they transition to parenthood.

## METHODS

### Sample

Data were collected from all 592 individuals (296 couples) who completed the baseline assessment of an observational cohort study examining the transition of young couples from pregnancy through parenthood. Participants were recruited between July 2007 and February 2011 from obstetrics and gynecology clinics and an ultrasound clinic in four university-affiliated hospitals in Connecticut that serve largely low-income patients. Research staff screened potential participants, explained the study in detail and answered questions. If the male partner was not present, staff provided informational materials and asked the woman to talk to him about the study. The study recruited women aged 14–21 who were in their second or third trimester of pregnancy and their partners. Both partners had to report that the couple was in a romantic relationship (as they defined it) at the time of enrollment, be the biological parents of the unborn baby, agree to participate in the study, and speak English or Spanish. Furthermore, the male partner had to be at least 14 years old, and neither partner could knowingly be HIV-positive. Individuals were dropped from the study if they could not be recontacted following the screening and before the estimated due date.

At baseline, informed consent was obtained. Women and their partners were interviewed separately during the third trimester of pregnancy (mean gestation, 29 weeks); they simultaneously completed audio computer-assisted

self-interviews, which permitted them to listen to and read the questions. Participation was voluntary and confidential, and did not influence the provision of health care or social services in any way. All procedures were approved by the Yale University Human Investigation Committee and by institutional review boards at study clinics. Participants were paid \$25.

### Measures

Our primary variable of interest was pregnancy desire. Female participants were asked, "In this current pregnancy, did you want to get pregnant?" Male partners were asked, "In this current pregnancy, did you want her to get pregnant?" Response options, on a five-point Likert scale, were "definitely no," "kind of no," "unsure," "kind of yes" and "definitely yes." We considered the last two responses to mean that the pregnancy was desired, and the first two to mean that it was not.

Using Bronfenbrenner's ecological model,<sup>24</sup> we sought to explore multiple spheres of associations with pregnancy desire. We used constructs hypothesized to be related to pregnancy desire in the literature<sup>5-11,14,15,18-23</sup> and thought to be relatively stable over time, and thus relevant to when the couple first discovered that the woman was pregnant. On the individual level, we examined age, school status (currently in school vs. not), employment status (currently employed vs. not), race or ethnicity, household income, parity, whether the individual was trying to get (or get his partner) pregnant and risk behaviors (ever-use of alcohol, cigarettes or marijuana) prior to pregnancy.

On the level of the dyad, we considered partner's age, relationship length and the perception of the partner's pregnancy desire. To assess this last measure, we asked females, "In this current pregnancy, did your partner want you to get pregnant?" For males, the question was modified to ask "did she want to get pregnant?" Responses ranged on a five-point scale from "definitely no" to "definitely yes," with "unsure" as the midpoint.

Family characteristics included two binary variables to indicate whether the participant's mother or father had been a teenage parent. We also measured parental response to the pregnancy by asking participants, "In this current pregnancy, how did your parents react when they found out that you were (your partner was) pregnant?" Responses ranged on a seven-point scale from "very happy" to "very unhappy," with "neither happy nor unhappy" as the middle option. Parental support was measured by the question "In this current pregnancy, how supportive were your parents when they found out you were (she was) pregnant?" Responses were scored on a seven-point scale, from "not at all supportive" to "very supportive," with "somewhat supportive" in the middle. The functioning of each partner's family of origin was assessed using a 12-item scale adapted from the Family Functioning Scale.<sup>39</sup> Participants responded to statements concerning five general dimensions of family functioning: positive family affect, family communication, family conflicts, family worries, and family

rituals and supports. Using a seven-point scale, individuals indicated how closely a set of statements described their family. A total family functioning score was calculated by summing responses to all items; higher scores correspond to greater family functioning. Reliability for this measure was very good (Cronbach's alpha, 0.82).

On the peer and community level, we measured whether the participant had a friend who had become a parent as an adolescent. We also assessed perceived neighborhood problems using an adapted version of the Perceived Neighborhood Problems scale.<sup>40</sup> Participants used a three-point scale to indicate whether each of 16 conditions was "not a problem," a "minor problem" or a "serious problem" in their neighborhood. Responses were summed to form a total scale (Cronbach's alpha, 0.92). Finally, we used a crime index, generated by combining census data and reported crime statistics. The crime data are based on aggregated statistics from the 1998–2006 FBI Uniform Crime Report databases, reported at the level of the census tract, as defined by 2000 boundaries. Data were obtained from Tetrad Corp., a software company that compiles national statistics into easy-to-use databases.

To determine if pregnancy desire was associated with quality of life, we explored two constructs that we hypothesized would be related to desire and that we deemed important for healthy parenting. We measured participants' general satisfaction with life with a newly constructed scale, consisting of five items (e.g., "In most ways, my life is close to ideal" and "The conditions of my life are excellent"). Responses ranged on a seven-point Likert scale from "strongly disagree" to "strongly agree," with "neither agree nor disagree" as the midpoint, and they were summed for a total score (Cronbach's alpha, 0.81). We measured relationship satisfaction with the 32-item Dyadic Adjustment Scale,<sup>41</sup> which we adapted to make it more applicable to adolescent partners, who may not be married or living together. For example, the original "Do you ever regret that you married (live together)?" was changed to "Do you ever regret being with your partner?" Sample items are "How often do you or your partner leave the house after a fight?" and "How often do you kiss your partner?" A total relationship satisfaction score was computed by summing responses to all items; higher scores indicate greater relationship satisfaction.<sup>41</sup> Reliability for this measure was very good (Cronbach's alpha, 0.94).

### Analysis

First, we calculated frequencies or means for each variable. We then used multilevel regression models to examine associations between participant characteristics and pregnancy desire; the use of such modeling controls for the correlated nature of couples' data<sup>42</sup> and helps to avoid standard errors that are too small, which can increase the likelihood of a type 1 error. In our models, individuals represented level 1, and couples represented level 2. After entering all characteristics simultaneously into one model to determine their independent associations with pregnancy desire, we used

backward elimination to exclude nonsignificant variables ( $p > .10$ ) one at a time. We tested gender interaction terms to determine if any associations were moderated by gender.

Next, we examined the accuracy of participants' perceptions of their partners' pregnancy desires (specified as "wanted a pregnancy," "did not want one" or "unsure") by constructing two three-by-three tables, and calculated kappa statistics to determine the agreement between perceived and actual partner desires for both males and females.

To assess associations between pregnancy desire and life and relationship satisfaction, we again started by modeling all participant characteristics simultaneously and then used backward elimination to remove nonsignificant parameters. We then entered participant pregnancy desire into each multivariate model and tested its interaction with gender to determine if desire was associated with life or relationship satisfaction.

Given that trying to become pregnant was potentially highly endogenous with wanting to become pregnant, we excluded it from the multivariate modeling. In all multivariate models, because of the small number of participants in the "other" race or ethnicity category, these individuals were grouped with whites.<sup>43</sup> Owing to the low level of missing data (less than 6%), a complete case analysis was conducted. SPSS Predictive Analytics Software, version 18, was used for all analyses.

## RESULTS

### Sample Characteristics

On average, participants were 20 years old; one-third were currently in school, and four in 10 were employed (Table 1). Forty-four percent were black, 38% Hispanic, 14% white and 4% of another race or ethnicity. Participants had an average household income of \$15,500. For three-quarters of the sample, the current pregnancy was their first, and one-third had been trying to get (or get their partner) pregnant. Prior to the pregnancy, more than half of participants had drunk alcohol, four in 10 had smoked and a third had used marijuana. On average, participants had been in their relationship for 27 months and were unsure about their partners' pregnancy desires.

The mothers of approximately half of participants had given birth as teenagers, and a third of participants' fathers had become fathers as teenagers. Parents were generally happy about the pregnancy and supportive overall. For the family functioning measure, the average score was moderately high. Two-thirds of participants had a friend who had given birth or who had become a father as a teenager. Participants judged their neighborhoods to have a medium level of problems, and they lived in areas with higher-than-average crime.

### Pregnancy Desire

Forty-nine percent of females and 53% of males reported that they had wanted the pregnancy; 33% and 23%, respectively, said they had not wanted the pregnancy

**TABLE 1. Selected characteristics of participants in a study of young expectant couples in a romantic relationship, Connecticut, 2007–2011**

Characteristic	Mean or % (N=592)
<b>Individual</b>	
Age (range, 14–40)	20.0 (3.4)
Gender	
Female	50.0
Male	50.0
Currently in school	33.2
Currently employed	44.4
Race/ethnicity	
Black	44.1
Hispanic	38.0
White	13.7
Other	4.2
Household income (\$; range, 2,500–175,000)	15,471 (18,870)
First baby	77.3
Trying to get pregnant	35.8
Risk behavior prior to pregnancy	
Ever used alcohol	53.7
Ever smoked	42.2
Ever used marijuana	35.9
<b>Partner</b>	
Relationship length (mos.; range, 4.8–130.5)	26.9 (19.8)
Perceived partner pregnancy desire (range, 0–4)	2.5 (1.4)
<b>Family</b>	
Maternal teenage birth	52.0
Paternal teenage birth	33.3
Parental response to the pregnancy (range, 1–7)	5.0 (2.0)
Parental support (range, 1–7)	5.9 (1.6)
Family functioning (range, 14–84)	61.0 (12.2)
<b>Peer/community</b>	
Friend teenage birth	66.7
Perceived neighborhood problems (range, 15–45)	23.4 (8.0)
Crime index (range, 3–629)†	209.6 (139.3)

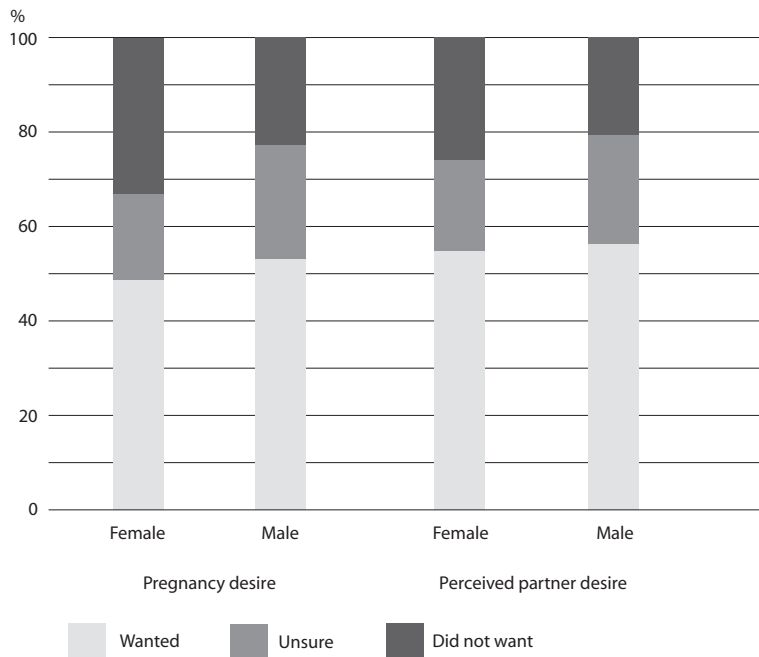
†This index was generated from census data and crime statistics (see page 246); an index of 100 is considered the U.S. average. Notes: Figures in parentheses are standard deviations. Data were missing for 0–30 participants per item.

(Figure 1, page 248). Eighteen percent of females and 24% of males said they had been unsure. Meanwhile, 55% of females believed their partner had wanted them to get pregnant, and 26% believed he had not. Similarly, 56% of males believed their partner had wanted to get pregnant, while 21% believed she had not.

Among individuals who said they had wanted to get (or get their partner) pregnant, 64% reported that they had been trying to do so (not shown). Finally, 97% of those who had not wanted a pregnancy said they had not been trying.

In our final model, male participants had higher pregnancy desire scores than females (Table 2, page 248). Participants expecting their first baby, those who believed that their partners had higher pregnancy desire and those reporting more positive parental responses also had elevated desire scores. Participants who were currently in school or were employed had lower desire scores than those who were not in school or were unemployed. Blacks reported marginally lower desire scores than whites or those of other races or ethnicities, and participants who reported more parental support had reduced pregnancy desire.

**FIGURE 1. Percentage distribution of participants, by pregnancy desire and by perception of partner's pregnancy desire, according to gender**



Only one association was moderated by gender (not shown): A significant interaction with gender was found for expecting a first baby ( $t=-2.62$ ;  $p<.01$ ). Females pregnant with their first baby reported greater pregnancy desire than those who had already given birth (coefficient, 0.52; 95% confidence interval, 0.23–0.82); this association did not hold for males.

**Accuracy of Perceived Partner Desire**

Among females who perceived that their partner had wanted the pregnancy, 73% were correct in that perception (Table 3). In contrast, among couples in which the female thought that her partner had not wanted the pregnancy, 20% of male partners actually had wanted the pregnancy, 27% had been unsure and 53% had not wanted it. Among males who perceived that their partner had wanted to get pregnant, 65% were correct. In cases in which males believed that their partner had not wanted to get pregnant, 15% of female partners had wanted the pregnancy, 17% had been unsure and 68% had not wanted it. Kappa statistics suggest a fair level of agreement for both genders, although overall, females had more accurate perceptions of their partners' pregnancy desires than did males (kappas, 0.36 and 0.28, respectively—not shown).

**Pregnancy Desire and Satisfaction**

Participants' pregnancy desire was positively associated with life satisfaction (Table 4); this association was not moderated by gender. Similarly, pregnancy desire was positively associated with relationship satisfaction; in this model, the interaction between desire and gender was marginally significant ( $t=1.68$ ;  $p<.10$ ). The association

between pregnancy desire and relationship satisfaction was less strong among females (coefficient, 1.62; 95% confidence interval, 0.01–3.22) than among males (coefficient, 3.44; 95% confidence interval, 1.72–5.16).

**DISCUSSION**

Our study contributes to the literature on pregnancy desire by confirming the high prevalence of desire within a cohort of young women and men who are in romantic relationships and expecting a baby. Half of participants had wanted to have a baby, and an additional one in five had been unsure of how they felt about the pregnancy. Because ambivalence toward pregnancy and desire to have a baby may both lead to risky sexual behaviors,<sup>15</sup> pregnancy desire may be a critical target for interventions aiming to reduce sexual risk among young men and women.

We assessed pregnancy desire during the third trimester and not immediately after participants found out they or their partners were pregnant. Hence, participants' reporting of desire could have been influenced by their experiences and interactions with family, friends and partners throughout the pregnancy. Despite this possibility, we believe that our measure is valid for the following reasons. First, although parental response was strongly related to pregnancy desire, the relationship between desire and life and relationship satisfaction persisted even after parental response was controlled for. Second, the correlates associated with pregnancy desire are similar to those reported among another sample of young women in a prospective study.<sup>10</sup> Third, the desire reports were corroborated by participants' responses to a question asking whether they were trying to achieve a pregnancy. Two-thirds of those who had wanted to get (or get their partner) pregnant also reported that they had been trying to do so. Moreover, almost all of those who had not wanted a pregnancy said they had not been trying.

**TABLE 2. Coefficients (and 95% confidence intervals) from adjusted multilevel regression models assessing associations between participant characteristics and pregnancy desire**

Characteristic	Coefficient
Male	0.20 (0.00–0.40)*
Currently in school	-0.22 (-0.41 to -0.04)*
Currently employed	-0.24 (-0.42 to -0.05)*
Race/ethnicity	
Black	-0.23 (-0.47–0.01)†
Hispanic	0.09 (-0.15–0.33)
White/other (ref)	na
First baby	0.24 (0.04–0.45)*
Perceived partner pregnancy desire	0.55 (0.49–0.62)**
Parental response to the pregnancy	0.12 (0.06–0.17)**
Parental support	-0.10 (-0.17 to -0.04)**
AIC	1,663.85
BIC	1,676.78

\* $p<.05$ . \*\* $p<.01$ . † $p<.10$ . Notes: Because of missing data, 32 individuals were dropped from the model. The last three characteristics shown are scaled measures; all others except race/ethnicity are dichotomous. ref=reference group. na=not applicable. AIC=Akaike information criterion. BIC=Bayesian information criterion.

Our findings highlight characteristics that may be an integral part of pregnancy desire. First, our multivariate model suggests that the young males in our sample had had a greater desire for pregnancy than their female partners, a finding that is supported by another study.<sup>14</sup> Although males may have overreported pregnancy desire to a greater extent than females, we believe the large proportions of both genders reporting such desire nevertheless highlight the need for interventions aimed at reducing adolescent pregnancies to target both women and men. Second, a more positive parental response to the pregnancy was associated with greater pregnancy desire among both genders. This relationship could simply be due to response bias: The more positive parental response may have influenced an adolescent to report greater desire. Alternatively, pregnancy desire could, in part, be related to adolescents' anticipation of parental responses. For instance, if an adolescent expected a very negative response from his or her parent, he or she might have been less likely to want to have a baby. In this regard, an adolescent's expectation of parental response may relate to his or her feelings toward a pregnancy. Third, parental support was inversely associated with pregnancy desire. This association could be explained by another study's finding that low levels of parental support are associated with greater pregnancy desire.<sup>9</sup> Another possible explanation is that adolescents who did not want the pregnancy may have exhibited heightened distress and thus elicited increased support response from their parents, as elevated distress in an individual can be associated with an increased support response from his or her social network.<sup>44</sup>

A fourth integral aspect of pregnancy desire is the perception of the partner's desire, which was strongly positively associated with the participant's own desire. Although this relationship did not differ by gender, an adolescent's ability to accurately assess his or her partner's desire did. While both women and men were fairly accurate in their perceptions of their partners' desire for a pregnancy, women were slightly more accurate than men. The prevalence of inaccuracies is striking, however, given that the reporting of desire was retrospective. Because the majority of these pregnancies were not planned (only one-third of participants reported that they had been trying for a pregnancy), interactions between partners—such as responses to learning of the pregnancy and discussions about whether to have the baby—could have revealed their feelings about the pregnancy. Inaccuracies in perceiving a partner's pregnancy desire could be partially due to ineffective or inauthentic communication between partners. Future research should incorporate measures of pregnancy desire for both partners.

Both women and men who wanted the pregnancy expressed consistently higher life satisfaction and relationship satisfaction, suggesting links between pregnancy desire and the overall quality of life and happiness among young couples. Although pregnancy desire may lead to having a baby earlier than planned, which may have lasting

**TABLE 3. Percentage distribution of participants, by partner's actual pregnancy desire, according to perception of partner's pregnancy desire**

Perception of partner's desire	N	Partner's actual desire			
		Did not want	Unsure	Wanted	Total
<b>Female</b>					
Partner did not want	75	53.3	26.7	20.0	100.0
Partner unsure	57	21.1	38.6	40.4	100.0
Partner wanted	160	9.4	17.5	73.1	100.0
<b>Male</b>					
Partner did not want	60	68.3	16.7	15.0	100.0
Partner unsure	67	37.3	22.4	40.3	100.0
Partner wanted	163	17.2	17.8	65.0	100.0

Note: Six males were missing data for perception of partner's desire, and four for partner's actual desire.

negative effects on the family, experiencing an unwanted pregnancy and subsequently having the baby may lead to reduced life and relationship satisfaction, which could also influence overall family health and stability.

The direct association between pregnancy desire and relationship satisfaction is particularly important for young couples and their families. Dissatisfaction within the romantic relationship can lead to its dissolution and to poor family functioning, negatively affecting both the parents and their children.<sup>45,46</sup> Our findings highlight the strength of this association within our sample, especially among young males, and thus corroborate previous work showing more positive feelings about pregnancy desire among males than among females.<sup>14</sup> This evidence reinforces the imperative to ensure that pregnancies are appropriately timed or, in the event that they are not, to provide adequate resources to young expectant couples both during and after the pregnancy.

### Limitations and Strengths

The most salient limitation of this study is that because of the retrospective nature of the pregnancy desire measure, the causal direction of relationships is unknown. In addition, it is not clear if participants' demographic

**TABLE 4. Coefficients (and 95% confidence intervals) from adjusted multilevel regression models assessing associations between participant characteristics and life and relationship satisfaction**

Characteristic	Life satisfaction	Relationship satisfaction
Pregnancy desire	0.73 (0.25–1.21)**	2.43 (1.16–3.70)**
Age	-0.18 (-0.35 to -0.01)*	-0.47 (-0.96–0.03)†
Currently in school	na	-2.90 (-6.38–0.57)
Household income (per \$1,000)	0.03 (0.00–0.06)*	na
Risk behavior prior to pregnancy		
Ever used alcohol	na	na
Ever smoked	-1.24 (-2.33 to -0.15)*	-3.24 (-6.39 to -0.10)*
Ever used marijuana	na	na
Perceived partner pregnancy desire	0.23 (-0.24–0.69)	na
Parental response to the pregnancy	0.50 (0.20–0.79)**	0.65 (-0.20–1.49)
Family functioning	0.11 (0.07–0.16)**	0.48 (0.35–0.60)**
Perceived neighborhood problems	-0.08 (-0.15 to -0.02)*	na
AIC	3,638.76	4,843.71
BIC	3,651.67	4,856.65

\*p<.05. \*\*p<.01. †p<.10. Notes: Because of missing data, 35 and 32 individuals, respectively, were dropped from the life and relationship satisfaction models. na=not applicable; these variables were excluded as a result of the backward elimination model-building strategies. AIC=Akaike information criterion. BIC=Bayesian information criterion.

characteristics had been stable since the time of conception; in particular, females' school or employment status may have changed as a result of increasing gestational age. Future longitudinal and prospective studies are needed to confirm the associations we found in this sample. The validity of our income measure is also unclear, as participants as young as 14 were reporting on their family's income. Another limitation is the lack of generalizability of the sample, given that it included only couples from low-income neighborhoods who chose to have a baby, remained in a romantic relationship and chose to participate in the study.

A strength of this study is the collection of data from both male and female partners, as few studies have included expectant fathers. Our results on the importance of partners' perceived pregnancy desire reinforce the need to include both members of an expectant couple. Despite the reliance on self-reported measures, the use of audio computer-assisted self-interviews helped to ensure validity and reliability of measurement. This study also was guided by previous research and Bronfenbrenner's ecological model<sup>24</sup> to investigate multiple levels of influence, which helped to identify important characteristics in different domains that could contribute to intervention development.

## Conclusions

Many interventions designed to reduce sexual risk among adolescents operate under the assumption that pregnancies are unwanted, and so make increasing knowledge, improving skills (e.g., condom negotiation) and changing attitudes toward contraception their primary goals. Our findings, however, suggest that the extent to which both young women and young men in low-income neighborhoods want a baby requires further exploration and may be an appropriate focus of interventions. Furthermore, health care providers who see pregnant adolescents may want to identify couples who express low pregnancy desire so that they can receive additional psychological or social services during their transition to parenthood.

## REFERENCES

- Ventura SJ et al., Estimated pregnancy rates for the United States, 1990–2005: an update, *National Vital Statistics Reports*, 2009, Vol. 58, No. 4.
- Hamilton BE et al., Births: preliminary data for 2009, *National Vital Statistics Reports*, 2010, Vol. 59, No. 3.
- Fletcher JM and Wolfe BL, Education and labor market consequences of teenage childbearing: evidence using the timing of pregnancy outcomes and community fixed effects, *Journal of Human Resources*, 2009, 44(2):303–325.
- Fletcher JM and Wolfe BL, The effects of teenage fatherhood on young adult outcomes, *Economic Inquiry*, 2012, 50(1):182–201.
- Taylor JL, Midlife impacts of adolescent parenthood, *Journal of Family Issues*, 2009, 30(4):484–510.
- Meade CS, Kershaw TS and Ickovics JR, The intergenerational cycle of teenage motherhood: an ecological approach, *Health Psychology*, 2008, 27(4):419–429.
- Sipsma H et al., Like father, like son: the intergenerational cycle of adolescent fatherhood, *American Journal of Public Health*, 2010, 100(3):517–524.
- Heavey EJ et al., Differences in pregnancy desire among pregnant female adolescents at a state-funded family planning clinic, *Journal of Midwifery & Women's Health*, 2008, 53(2):130–137.
- Davies SL et al., Pregnancy desire among disadvantaged African American adolescent females, *American Journal of Health Behavior*, 2003, 27(1):55–62.
- Sipsma HL et al., Adolescent pregnancy desire and pregnancy incidence, *Women's Health Issues*, 2011, 21(2):110–116.
- Davies SL et al., Relationship characteristics and sexual practices of African American adolescent girls who desire pregnancy, *Health Education & Behavior*, 2004, 31(4 Suppl.):S85–S96.
- Davies SL et al., Predictors of inconsistent contraceptive use among adolescent girls: findings from a prospective study, *Journal of Adolescent Health*, 2006, 39(1):43–49.
- Crosby RA et al., Psychosocial predictors of pregnancy among low-income African-American adolescent females: a prospective analysis, *Journal of Pediatric and Adolescent Gynecology*, 2002, 15(5):293–299.
- Heavey EJ et al., Female adolescents' perceptions of male partners' pregnancy desire, *Journal of Midwifery & Women's Health*, 2008, 53(4):338–344.
- Cowley C and Farley T, Adolescent girls' attitudes toward pregnancy: the importance of asking what the boyfriend wants, *Journal of Family Practice*, 2001, 50(7):603–607.
- Burton J, Darbes LA and Operario D, Couples-focused behavioral interventions for prevention of HIV: systematic review of the state of evidence, *AIDS and Behavior*, 2010, 14(1):1–10.
- Williams RL and Fortenberry JD, Update on adolescent condom use, *Current Opinion in Obstetrics and Gynecology*, 2011, 23(5):350–354.
- Lammers C et al., Influences on adolescents' decision to postpone onset of sexual intercourse: a survival analysis of virginity among youths aged 13 to 18 years, *Journal of Adolescent Health*, 2000, 26(1):42–48.
- Jaccard J, Dittus PJ and Gordon VV, Maternal correlates of adolescent sexual and contraceptive behavior, *Family Planning Perspectives*, 1996, 28(4):159–165 & 185.
- Smith JL, Skinner SR and Fenwick J, Perceptions of teen motherhood in Australian adolescent females: life-line or lifederailment, *Women and Birth*, 2012 (forthcoming).
- Gold R et al., Teen births, income inequality, and social capital: developing an understanding of the causal pathway, *Health & Place*, 2002, 8(2):77–83.
- Crosby RA and Holtgrave DR, The protective value of social capital against teen pregnancy: a state-level analysis, *Journal of Adolescent Health*, 2006, 38(5):556–559.
- Kirby D, Antecedents of adolescent initiation of sex, contraceptive use, and pregnancy, *American Journal of Health Behavior*, 2002, 26(6):473–485.
- Bronfenbrenner U, Ecological systems theory, in: Vasta R, ed., *Six Theories of Child Development: Revised Formulations and Current Issues*, Greenwich, CT: JAI Press, 1989, pp. 187–249.
- Rich-Edwards JW et al., Sociodemographic predictors of antenatal and postpartum depressive symptoms among women in a medical group practice, *Journal of Epidemiology and Community Health*, 2006, 60(3):221–227.
- Orr ST and Miller CA, Unintended pregnancy and the psychosocial well-being of pregnant women, *Women's Health Issues*, 1997, 7(1):38–46.

27. Messer LC et al., Pregnancy intendedness, maternal psychosocial factors and preterm birth, *Maternal and Child Health Journal*, 2005, 9(4):403–412.
28. Ispa JM et al., Pregnancy acceptance, parenting stress, and toddler attachment in low-income black families, *Journal of Marriage and Family*, 2007, 69(1):1–13.
29. Riley AW et al., Mental health of children of low-income depressed mothers: influences of parenting, family environment, and raters, *Psychiatric Services*, 2009, 60(3):329–336.
30. Gee CB and Rhodes JE, Adolescent mothers' relationship with their children's biological fathers: social support, social strain, and relationship continuity, *Journal of Family Psychology*, 2003, 17(3):370–383.
31. Gee CB and Rhodes JE, Postpartum transitions in adolescent mothers' romantic and maternal relationships, *Merrill-Palmer Quarterly*, 1999, 45(3):512–532.
32. Bachman HJ, Coley RL and Carrano J, Maternal relationship instability influences on children's emotional and behavioral functioning in low-income families, *Journal of Abnormal Child Psychology*, 2011, 39(8):1149–1161.
33. Kitzmann KM, Effects of marital conflict on subsequent triadic family interactions and parenting, *Developmental Psychology*, 2000, 36(1):3–13.
34. Cutrona CE et al., Predictors and correlates of continuing involvement with the baby's father among adolescent mothers, *Journal of Family Psychology*, 1998, 12(3):369–387.
35. Bronte-Tinkew J et al., Symptoms of major depression in a sample of fathers of infants: sociodemographic correlates and links to father involvement, *Journal of Family Issues*, 2007, 28(1):61–99.
36. Bronte-Tinkew J et al., Pregnancy intentions during the transition to parenthood and links to coparenting for first-time fathers of infants, *Parenting: Science and Practice*, 2009, 9(1–2):1–35.
37. Meade CS and Ickovics JR, Systematic review of sexual risk among pregnant and mothering teens in the USA: pregnancy as an opportunity for integrated prevention of STD and repeat pregnancy, *Social Science & Medicine*, 2005, 60(4):661–678.
38. Malow RM et al., HIV preventive interventions for adolescents: a look back and ahead, *Current HIV/AIDS Reports*, 2007, 4(4):173–180.
39. Tavitian ML et al., Dimensions of family functioning, *Journal of Social Behavior and Personality*, 1987, 2(2, Pt. 1):191–204.
40. Ellaway A, Macintyre S and Kearns A, Perceptions of place and health in socially contrasting neighbourhoods, *Urban Studies*, 2001, 38(12):2299–2316.
41. Spanier GB, Measuring dyadic adjustment: new scales for assessing the quality of marriage and similar dyads, *Journal of Marriage and the Family*, 1976, 38(1):15–28.
42. Kenny DA, Kashy DA and Bolger N, Data analysis in social psychology, in: Gilbert D, Fiske ST and Lindzey G, eds., *The Handbook of Social Psychology*, fourth ed., New York: McGraw-Hill, 1998, pp. 223–265.
43. Kershaw T et al., In the heart or in the head: relationship and cognitive influences on sexual risk among young couples, *AIDS and Behavior*, 2012, 16(6):1522–1531.
44. Cruza-Guet MC et al., The relationship between social support and psychological distress among Hispanic elders in Miami, Florida, *Journal of Counseling Psychology*, 2008, 55(4):427–441.
45. Amato PR and Sobolewski JM, The effects of divorce and marital discord on adult children's psychological well-being, *American Sociological Review*, 2001, 66(6):900–921.
46. Amato PR and Booth A, A prospective study of divorce and parent-child relationships, *Journal of Marriage and the Family*, 1996, 58(2):356–365.

#### Acknowledgments

This research was supported by grant 1R01MH75685 from the National Institutes of Mental Health.

**Author contact:** [sipsmah@uic.edu](mailto:sipsmah@uic.edu)