

# Association of Conventional Goals and Perceptions Of Pregnancy with Female Teenagers' Pregnancy Avoidance Behavior and Attitudes

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**CONTEXT:** Fostering conventional goals is a key component of pregnancy prevention interventions for teenagers. However, research has not shown whether having goals independently influences sexual behavior, or whether the perception that pregnancy represents an impediment to achieving goals mediates any association.

**METHODS:** In 1999–2001, a racially mixed group of 351 sexually experienced female teenagers who were inadequate contraceptive users completed surveys about goals, the anticipated impact of childbearing on these goals, and protective behaviors and attitudes. Chi-square, regression and two-by-two table analyses assessed associations between goals and perceptions of early childbearing and pregnancy avoidance measures.

**RESULTS:** Three-fourths of respondents had educational or vocational goals. Eight in 10 of these teenagers perceived their goals to be achievable, but fewer than half thought pregnancy would be an impediment to achieving these goals. Teenagers who had goals were more likely than others to have used a contraceptive at last intercourse (odds ratio, 1.9), but controlling for the perception of pregnancy as an impediment eliminated this association. In contrast, considering pregnancy an impediment was associated with an increased likelihood of supporting each pregnancy avoidance measure (2.1–9.6), and of intending to avoid pregnancy and to have an abortion if pregnant, regardless of whether teenagers had goals (8.3–13.8).

**CONCLUSIONS:** Conventional goals appear to motivate teenagers to avoid getting pregnant only if they believe pregnancy will be an impediment. Thus, it may be less important to encourage young women to formulate goals than to ensure that they consider adolescent childbearing a threat to their plans.

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The conventional wisdom within the field of adolescent health is that behaviors such as academic achievement and avoidance of teenage pregnancy are linked by shared underlying characteristics, which are typically referred to as “risk” and “protective” factors.<sup>1–6</sup> These factors are believed to create an atmosphere that fosters or deters, respectively, a host of behaviors that could compromise a person’s health and well-being. However, Guilamo-Ramos and colleagues have demonstrated that “problem behaviors,” like teenage pregnancy and substance abuse, have more unique causes than common ones, and that unshared experiences play an important role in shaping social deviance.<sup>7</sup>

Early efforts to prevent teenage pregnancy were directed toward eliminating presumed risk factors.<sup>1</sup> Subsequently, programs began to encourage the adoption of protective factors, or “assets,” in an attempt to explicitly delineate societal expectations for adolescents.<sup>2–10</sup> Interventions that promote children’s internalization of the conventional belief that early childbearing is intrinsically unattractive may deter social deviance.<sup>11</sup> However, the evidence that a similar strategy is effective when intervention begins during adolescence is scant and rarely compelling.<sup>7,12</sup> For example, interventions focused on eliminating shared “nonsexual antecedents” of teenage

pregnancy, such as dropping out of school, have not prevented more adolescent pregnancies than interventions discouraging antecedents such as unprotected sexual activity.<sup>7,12,13</sup> Indeed, studies that have controlled for mainstream societal conventions have found no association between commonly promoted assets, such as “positive peer role models” and “good family communication,” and more consistent use of highly effective contraceptives during adolescence.<sup>10,14</sup>

One problem with the “youth development” approach to teenage pregnancy prevention is that nothing intrinsic to academic achievement, goal setting or trying to emulate a successful adult necessarily leads teenagers to engage in protective behavior. Even though teenagers’ likelihood of abstaining or practicing safer sex increases with their number of assets,<sup>1–6</sup> this association should not be misinterpreted as evidence of causality.<sup>15</sup>

Nor should policymakers or program personnel assume that teenagers who plan to graduate from high school or go to college also plan to delay childbearing beyond adolescence. Most teenagers whose family backgrounds and living environments put them at higher-than-average risk for unintended pregnancy have the same long-term educational, vocational and lifestyle goals as their lower risk peers.<sup>16–18</sup> Yet many engage in

unprotected sexual intercourse because they have not been socialized to believe that getting pregnant during adolescence will be an impediment to achieving these goals,<sup>14-18</sup> and most grow up believing that pregnancy prevention is an end in itself rather than a means of attaining their goals.<sup>15</sup> When the opportunity costs of early childbearing are assessed in the context of the circumstances of sexual encounters rather than long-term goals, the desire to avoid getting pregnant can appear to be as changeable as adolescents' romantic relationships.<sup>19</sup>

Teenagers are rarely asked about the impact they think pregnancy will have on their lives.<sup>20-22</sup> However, the lack of planning for most conceptions at this age suggests that the absence of negative expectations regarding childbearing fosters complacency about pregnancy prevention, and may exert more influence on pregnancy intentions than do positive expectations about parenthood.<sup>20-24</sup> The literature provides scant information on whether teenagers' involvement in conventional institutions such as family, school and church heightens their concerns about early childbearing or reduces teenage pregnancy rates, and the available data are not supportive.<sup>10,14</sup> Family and social involvement does not appear to discourage early childbearing in communities that implicitly condone it, or that do not view teenage pregnancy as problematic.<sup>14-16</sup>

The objective of this study was to determine if conventional goals, such as planning to go to college, are independently related to pregnancy avoidance attitudes and behaviors among teenage women, or if any relationship is mediated by the belief that pregnancy would be an impediment to achieving such goals. We explored two hypotheses: that some women with conventional educational and vocational goals do not believe that becoming pregnant during adolescence would make it more difficult to achieve their goals, and that women's belief that pregnancy would make it more difficult to achieve goals accounts for any positive association between educational and vocational goals and the intent to avoid adolescent pregnancy.

## METHODS

### Data Collection

The study was conducted between January 1999 and June 2001 at three urban adolescent health clinics in the Southwest. One clinic was hospital-based, and two were located in neighborhood health centers, which are part of a clinic network serving predominantly medically indigent patients of all ages. Women were eligible to participate if they had had sexual intercourse, were younger than 20, had never been pregnant, and had used no contraceptive method or an unreliable method (i.e., rhythm, withdrawal or douching) in at least one of the last four episodes of heterosexual vaginal intercourse. Consistent contraceptive users were excluded because we were interested in pregnancy avoidance attitudes and behaviors that put teenagers at immediate risk for conception.

To obtain the convenience sample, health care providers first counseled individuals about their contraceptive options and then referred those who were eligible to a research assistant who explained the study. Almost everyone (97%) who was asked to participate agreed to do so (N=351); participants and nonparticipants did not differ in their reasons for the clinic visit or in demographic characteristics. The study was approved with a waiver of parental consent by the institutional review board of the University of Colorado Health Sciences Center, and participants signed a consent form at enrollment.

### Measures

The items used in this analysis were selected from a self-administered questionnaire that was developed for a study of adolescents' childbearing attitudes.<sup>21,22</sup>

•**Goals status.** Two questions were used to define participants' goals: One asked about educational plans (possible responses were none, GED, high school graduation, vocational school, college and more than college), and the other asked about vocational plans (respondents described what work they planned or aspired to do as adults). A respondent was classified as having goals if she indicated some educational or vocational aspirations that would generally be considered incompatible with immediate childbearing or at least more difficult to accomplish if she became pregnant (e.g., high school graduation). This definition was purposefully broad, and the bar intentionally low, to be consistent with the goals that teenage pregnancy prevention programs set for participants and the standards used to determine the long-term impact of childbearing at this age.<sup>12,25-28</sup>

Two questions were used to determine whether respondents perceived their goals to be achievable: "How likely is it that you will achieve (reach) your educational/career goal?" Possible responses ranged from "unlikely" to "very likely" (scored from 0 to 3); respondents were classified as considering their goals to be achievable if their mean score exceeded zero.

A five-item scale (Cronbach's alpha, 0.77) was used to quantify the perception that teenage pregnancy poses an impediment to achieving goals.<sup>21,22</sup> Each item asked which of two statements best represented respondents' feelings about the effect of pregnancy on achieving goals. One item asked if getting pregnant would make it more difficult to achieve school-related goals; possible responses were "Having a baby now would make it hard for me to finish school," "I go back-and-forth" and "Having a baby now would give me a reason to finish school" (scored as 1, 2 and 3, respectively). A similarly worded item asked about work-related goals. The remaining three items asked about unspecified plans. For example, one of these read "Having a baby now would get in the way of my plans for the future," "I go back-and-forth" and "Having a baby now would fit into my plans for the future." High scores indicated the respondent anticipated that

pregnancy would have a positive effect on her plans. The scale range was 5–15; we converted scores to a dichotomous risk factor by performing a median (6.5) split.

•**Pregnancy avoidance measures.** Five outcome variables measured pregnancy avoidance behavior and attitudes. The first assessed respondents' contraceptive use at last sexual intercourse, and was based on whether the risk of conception with typical use of their stated method (selected from a list) is less than 10%.<sup>29</sup> Thus, teenagers who had used a condom, foam, a diaphragm, the pill, the patch, an injectable, an implant or an IUD the last time they had intercourse were classified as having used a contraceptive; teenagers who had used no contraceptive (some of whom had intended to abstain) or had used rhythm, withdrawal or douching were classified as not having used a contraceptive.

The second outcome variable ascertained whether they intended to avoid pregnancy; it was measured using a six-item, three-point scale (Cronbach's alpha, 0.86) that quantified the strength of the desire to avoid conception (range, 6–18; low values indicated a greater desire to avoid pregnancy).<sup>21,22</sup> For one of the items, respondents chose among these three options: "I really don't want to have a baby now," "I go back-and-forth" and "I really do want to have a baby now." A commitment to avoiding pregnancy is a better predictor of subsequent pregnancy status than is the desire to conceive.<sup>19–22</sup> Hence, teenagers who scored less than 8 (i.e., had no three-point responses and no more than one two-point response) were classified as intending to avoid getting pregnant.

The third outcome variable assessed whether teenagers would have an abortion if they got pregnant; it was coded as a dichotomous variable ("yes" versus "no" and "maybe"). The fourth outcome variable determined whether they planned to use a highly effective (prescription) contraceptive; this was classified in the affirmative if the risk of conception with typical use of their stated method (selected from a list) is less than 5%.<sup>29</sup> Thus, teenagers were classified into two groups: those who planned to start using the most effective contraceptives—the pill, patch, injectable, implant or IUD—and those who planned to abstain or use no method, rhythm, withdrawal, douching, a condom, foam or a diaphragm. We assessed attitudes and intentions because they are a prerequisite for action;<sup>30</sup> however, our cross-sectional design did not allow us to substantiate corresponding behaviors. The fifth outcome variable was a composite index composed of the other four measures (range, 0–4; one point for each affirmative classification).

•**Social and demographic characteristics.** Respondents were asked about their age, racial or ethnic background (Hispanic, black, white, Native American or Asian), living arrangement (with parents, independently with boyfriend or in another arrangement), sexual experience and education (highest grade completed and current grade point average). A dichotomous variable classified them by educational status: Those enrolled in school with

passing grades and high school graduates were compared with those enrolled in school with failing grades and high school dropouts. In addition, respondents were asked about past or current involvement in socially proscribed behaviors (illicit drug or alcohol use, truancy, running away from home, fighting, or being arrested or jailed). In the analyses, Asian teenagers were grouped with whites, because they tend to engage in less risky sexual behavior and to exhibit higher educational achievement than other minority youth, and hence are less likely to become pregnant and drop out of school prior to high school graduation.<sup>31–33</sup> Acculturation has a strong influence on adolescents' behavior.<sup>33–35</sup> For example, during adolescence, foreign-born Hispanic females are less likely to have sexual intercourse but more likely to become pregnant and give birth than are their U.S.-born peers.<sup>34</sup> We did not assess acculturation,<sup>35</sup> but all study participants were sufficiently fluent in English to read the questionnaire, which was written at a fourth-grade reading level.<sup>20,21</sup>

**TABLE 1. Selected characteristics of female adolescents surveyed at three urban clinics in the Southwest, 1999–2001**

Characteristic	Mean or % (N=351)
<b>MEANS</b>	
<b>Age</b>	16.4 (1.5)
<b>Pregnancy avoidance index (range, 0–4)</b>	1.7 (1.1)
<b>PERCENTAGE DISTRIBUTIONS</b>	
<b>Race/ethnicity</b>	
Hispanic	54.7
Black	25.1
White	18.8
Native American	1.1
Asian	0.3
<b>Living arrangement</b>	
Living with parent(s)	73.4
Living independently with boyfriend	11.4
Other	15.2
<b>Educational status</b>	
In school with passing grades or high school graduate	38.5
In school with failing grades or high school dropout	61.5
<b>Sexually experienced</b>	
For ≥6 mos.	89.3
For <6 mos.	10.7
Total	100.0
<b>PERCENTAGES</b>	
<b>Past or current socially proscribed behavior†</b>	81.2
<b>Goals status</b>	
Has educational or vocational goals	74.1
Perceives goals to be achievable‡	81.2
Considers pregnancy an impediment to achieving goals‡	42.4
<b>Pregnancy avoidance behavior and attitudes</b>	
Used contraceptive at last sexual intercourse§	35.3
Intends to avoid pregnancy	48.4
Would have an abortion if pregnant	13.5
Plans to use a prescription contraceptive††	74.6

†Illicit drug or alcohol use, truancy, running away from home, fighting, or being arrested or jailed. ‡Among those who have goals. §Condom, foam, diaphragm, pill, patch, injectable, implant or IUD. ††Pill, patch, injectable, implant or IUD. Note: Figures in parentheses are standard deviations.

## Analysis

Students' *t* tests and chi-square analyses were used to compare the characteristics of teenagers who did and did not have goals and of teenagers who did and did not consider pregnancy to be an impediment to achieving their goals. Bivariate characteristics that were statistically significant at  $p < .05$  were included in hierarchical, forward, stepwise logistic regression analyses to assess the relationship between having goals or feeling that pregnancy would be an impediment to achieving goals and the pregnancy avoidance measures. The primary predictor variable (having goals or feeling that pregnancy would be an impediment) was always entered as the first step, potential confounders as the second step and the other predictor variable as the third step. Variables entered the models one at a time, on the basis of the strength of their association with the outcome under study. To approximate relative risks, adjusted odds ratios and their 95% confidence intervals were calculated from the regression coefficients and standard errors for each dichotomous variable, and *t* values were calculated for the pregnancy avoidance index. Collinearity diagnostics were also conducted. Final models were tested with chi-square likelihood ratios, and the predictive power of the models was assessed with Nagelkerke's  $R^2$ . Odds ratios (from two-by-two table analyses) and *t* values were also used to compare teenagers' responses for the pregnancy avoidance measures between those who did and those who did not consider pregnancy an impediment, depending on whether they had goals. All analyses were conducted using SPSS version 14.

## RESULTS

### Sample Characteristics

Respondents ranged from 10.8 to 19.6 years old; their mean age was 16.4 (Table 1). Fifty-five percent were Hispanic, 25% black and 19% white; 1% or fewer were Native American or Asian. Participants were representative of the teenage clientele who seek services at these urban clinics. Three-fourths of them lived with a parent, nine in 10 had been sexually experienced for at least six months and eight in 10 had engaged in a socially proscribed behavior. Although six in 10 of the young women were failing or had dropped out of school prior to high school graduation, three-fourths had educational or vocational goals: Sixty-four percent aspired to go to college, and 58% wanted to pursue a job in addition to motherhood (not shown). Among those who had goals, eight in 10 considered them to be achievable, yet only four in 10 thought that getting pregnant would make it more difficult to achieve their goals. Most of the teenagers were also at high risk for getting pregnant; only a third had used a contraceptive at last sexual intercourse, and only half were sure they wanted to avoid pregnancy. One in seven said they would get an abortion if they became pregnant, and three-quarters planned to use a prescription contraceptive.

## Goals and Pregnancy as an Impediment

In bivariate analyses (not shown), female teenagers with goals resembled those without goals regarding most of the variables presented in Table 1. However, the teenagers who had goals were less likely to be Hispanic, black or Native American (79% vs. 88%;  $p = .03$ ) or to be living with their boyfriends (9% vs. 40%;  $p = .02$ ). Females who considered pregnancy to be an impediment to achieving goals resembled those who did not think this, except that the former were more likely to be in school with passing grades or high school graduates (46% vs. 33%;  $p = .01$ ).

After adjustment for background differences, 46% of teenagers with educational or vocational goals considered pregnancy an impediment to achieving such goals, while 32% of those who had no goals believed this ( $p < .05$ ; odds ratio, 1.7). Following adjustment for educational status, females who regarded pregnancy to be an impediment were more likely to have conventional goals than were those who did not share this perception (81% vs. 69%,  $p < .05$ ; odds ratio, 1.8).

## Pregnancy Avoidance Attitudes and Behavior

Bivariate analysis found that female teenagers with goals were more likely than those without goals to have used a contraceptive at last intercourse, but not to state that they wanted to avoid pregnancy, would have an abortion if pregnant or planned to use a prescription contraceptive. The first step of the logistic regression analysis confirmed that teenagers with goals had an elevated likelihood of having used a contraceptive at last intercourse (odds ratio, 1.9). Race or ethnicity and living arrangement were not significant and so did not enter the model in the next step. However, the third step showed that considering pregnancy to be an impediment to achieving goals was significant, and inclusion of this variable eliminated the positive association between having goals and using a contraceptive at last intercourse.

In bivariate analyses, female teenagers who considered pregnancy an impediment differed from those who did not regarding all of the pregnancy avoidance measures studied (Table 2). Neither educational status nor having

**TABLE 2. Selected pregnancy avoidance measures, by whether teenagers considered pregnancy an impediment to achieving goals; and odds ratios or *t* value from regression analyses assessing the association between considering pregnancy an impediment and reporting protective measures**

Pregnancy avoidance measure	Considers pregnancy an impediment		Odds ratio or <i>t</i> value	$R^2$
	Yes (N=149)	No (N=202)		
Used contraceptive at last sexual intercourse (%)†	46.4	27.7***	2.3 (1.4–3.6)***	0.05
Intends to avoid pregnancy (%)	77.9	26.7***	9.6 (5.8–15.8)***	0.3
Would have an abortion if pregnant (%)	27.0	4.1***	8.7 (3.9–19.3)***	0.2
Plans to use a prescription contraceptive (%)‡	82.6	68.8**	2.1 (1.3–3.6)**	0.04
Mean pregnancy avoidance index (range, 0–4)	2.3 (1.1)	1.3 (1.0)***	9.2***	0.2

\*\* $p < .01$ . \*\*\* $p < .0001$ . †Condom, foam, diaphragm, pill, patch, injectable, implant or IUD. ‡Pill, patch, injectable, implant or IUD. Note: Figures in parentheses alongside odds ratios are 95% confidence intervals; those in parentheses alongside means are standard deviations.

**TABLE 3. Selected pregnancy avoidance measures, by whether teenagers considered pregnancy an impediment to achieving goals, according to whether they had goals; and results of two-by-two table analyses and t tests assessing the association between considering pregnancy an impediment and reporting protective measures**

Pregnancy avoidance measure	Pregnancy an impediment	Pregnancy not an impediment	Odds ratio or t value
<b>Has goals</b>	(N=120)	(N=140)	
Used contraceptive at last intercourse (%)†	49.6	31.1**	2.2 (1.3–3.7)**
Intends to avoid pregnancy (%)	76.7	27.1***	8.8 (5.0–15.5)***
Would have an abortion if pregnant (%)	28.2	4.4***	8.5 (3.4–21.3)***
Plans to use a prescription contraceptive (%)‡	80.8	68.6*	1.9 (1.1–3.5)*
Pregnancy avoidance index (range, 0–4)	2.3 (1.1)	1.3 (1.0)***	5.2***
<b>Has no goals</b>	(N=29)	(N=62)	
Used contraceptive at last intercourse (%)†	33.3	20.0	2.0 (0.7–5.6)
Intends to avoid pregnancy (%)	82.8	25.8***	13.8 (4.5–42.3)***
Would have an abortion if pregnant (%)	22.2	3.3**	8.3 (1.6–44.3)**
Plans to use a prescription contraceptive (%)‡	89.7	69.4*	3.8 (1.0–14.2)*
Pregnancy avoidance index (range, 0–4)	2.2 (0.9)	1.2 (1.0)***	7.7***

\*p<.05. \*\*p<.01. \*\*\*p<.0001. †Condom, foam, diaphragm, pill, patch, injectable, implant or IUD. ‡Pill, patch, injectable, implant or IUD. Notes: The percentages reporting each measure did not differ significantly between teenagers who had goals and those who did not. Figures in parentheses alongside odds ratios are 95% confidence intervals; those in parentheses alongside means are standard deviations.

goals entered any of the corresponding hierarchical regression analyses; hence, only the first step of each model is presented. Compared with teenagers who did not perceive pregnancy as an impediment to achieving goals, those who did so had elevated likelihoods of having used a contraceptive at last sexual intercourse (odds ratio, 2.3), intending to avoid getting pregnant (9.6), planning to have an abortion if they get pregnant (8.7) and planning to use a prescription contraceptive (2.1); they also scored higher on the pregnancy avoidance index (t value, 9.2).

The proportions of teenagers reporting each pregnancy avoidance measure were similar regardless of whether they had educational or vocational goals (Table 3). In both groups, considering pregnancy an impediment to achieving goals was associated with increased likelihoods of intending to avoid pregnancy (odds ratios, 8.8–13.8), planning to have an abortion if pregnant (8.3–8.5) and planning to use a prescription contraceptive (1.9–3.8), and with scoring higher on the pregnancy avoidance index (t values, 5.2–7.7). Those who had goals also had elevated odds of having used a contraceptive at last intercourse (odds ratio, 2.2). Among teenagers who did not consider pregnancy to be an impediment to achieving their goals, about a quarter intended to avoid getting pregnant, whereas more than three-quarters of those who perceived it to be an impediment intended to avoid pregnancy, regardless of whether they had goals.

## DISCUSSION

Our findings support both of the study's hypotheses: Half of the teenage women with educational or vocational goals did not believe that getting pregnant would make it harder to achieve them, and having goals was not an independent predictor of any of the outcomes. It is of interest, however, that at the bivariate level, teen-

agers with goals were more likely than those without goals to have used a contraceptive the last time they had sexual intercourse. Contraceptive use at last intercourse may represent an isolated instance of pregnancy avoidance activity in this cohort of inadequate contraceptive users. Thus, whereas the pregnancy avoidance attitudes that we studied may reflect the intent to avoid pregnancy because of its potential to interfere with one's goals, recent method use may be indicative of the desire to avoid pregnancy at a particular moment for an immediate reason.

Results of epidemiological studies support our findings by demonstrating that assets, such as having conventional goals and being attached to conventional institutions, do not discourage teenagers from becoming pregnant in communities where prevention of early childbearing is not the norm.<sup>14–18,36,37</sup> Our findings extend this observation by showing that formulating conventional educational and vocational plans is not associated with pregnancy avoidance attitudes during adolescence unless goal achievement is explicitly linked to pregnancy prevention.

Within this context, it is notable that regarding pregnancy as an impediment was associated with elevated likelihoods that teenagers would endorse most of the pregnancy avoidance measures we studied, whether or not they had educational or vocational goals. Clearly, our definition of goals was too restrictive. Further investigation of why teenage women who did not meet our definition of having goals considered pregnancy to be an impediment would be of interest. However, even without this information, our findings suggest that encouraging teenagers to formulate future-oriented educational and vocational goals may be less important than ensuring that they have concrete, personally relevant reasons to believe that childbearing during adolescence is a threat to what they want most for themselves. In practical terms, this may mean that parents, teachers and prevention interventions should focus on helping female teenagers understand why they may want to postpone childbearing.

Yet this suggestion is speculative. No studies have shown whether it is possible to foster negative expectations about the impact of childbearing, particularly among teenagers who have no such expectations because they grew up in communities where the opportunity costs of teenage pregnancy and parenthood are low. In addition, it is unknown if a decrease in the perceived benefits or an increase in the perceived costs of becoming a parent influences teenagers enough to motivate the behaviors necessary to avoid teenage pregnancy in communities where it is endemic.

## Limitations

The major limitations of this study were its reliance on self-reported, cross-sectional data and its focus on a socioeconomically disadvantaged group of teenagers who were

inadequate contraceptive users, half of whom were Hispanic. Given the first limitation, the data could include recall and measurement errors resulting from social desirability effects or concerns about confidentiality.<sup>38</sup> However, female teenagers typically respond honestly to surveys like this one.<sup>39</sup> Regarding the second limitation, a longitudinal study of a more diverse population would generate more robust data and also be more representative of female teenagers in the United States. Nonetheless, data such as these are needed, as the overall decline in the birthrate among American teenagers has been least pronounced in the lower socioeconomic sector of the Hispanic population.<sup>40</sup> At a minimum, the relationships that our analysis uncovered may help care providers and program planners determine why this rapidly growing, understudied population is at such high risk for teenage pregnancy. Although we did not assess acculturation, everyone who participated in the study was able to read English well enough to complete the questionnaire.<sup>20,21</sup> Since reading proficiency in English is an indicator of acculturation,<sup>35</sup> the level of assimilation of Hispanic study participants may explain why ethnicity did not enter any of the regression models.

## Conclusions

Despite the study's limitations, our findings have significant policy implications. Health care and social service providers should not expect teenagers' educational and vocational plans to discourage the sexual behavior that places them at risk for pregnancy. Furthermore, providers should shift the focus of pregnancy prevention interventions to helping teenagers develop concrete, personally relevant goals, and they should foster the understanding that early childbearing is a threat to achieving these goals.

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