Traditional Methods Use in the U.S.: The Effect of Knowledge, Attitudes, and Relationship Characteristics

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Conceptual Framework and Background

Despite a program and policy push towards using highly effective hormonal methods of contraception, a substantial percentage of couples have used more "traditional methods" (TM) of contraception, including natural family planning and withdrawal. For example, in 2006-08, nearly 20 percent of U.S. women of reproductive age (aged 15 to 44) reported having used a natural family planning method, and nearly 60 percent reported having used withdrawal.[7] A smaller percentage of women rely on these traditional methods as their main form of contraception: the same national data indicate that between three and six percent of young adult women (aged 20 to 29) currently rely on these methods. The typical use failure rates of traditional methods range from 22 to 24 percent, which is much higher than typical use of the pill or other hormonal methods; however, perfect use of these methods has only between a 0.4 and 5 percent failure rate.[11] A better understanding of factors associated with traditional method use will help improve program efforts to reduce high levels of unintended pregnancies among young adults in the United States.

Prior literature has shown that men and women turn to traditional methods for several reasons, including convenience, ease of use, the "all natural" feeling, and fear of side effects from hormonal methods.[4,12] Conceptually, the health belief model[1,8] suggests that the decision to use traditional methods – or any contraceptive method, for that matter, is dependent on components (1) an individual's valuation of a particular goal (in this case, avoidance of an unintended pregnancy); and (2) the individual's estimate of the likelihood that a given action (in this case, the use of traditional methods) will achieve that goal.[3] More specifically, decisions to use certain contraceptive methods are contingent upon individuals' evaluation of the perceived benefits and risks of the methods.

Although the health belief model provides a general framework for understanding why individuals might choose to use traditional methods, little research exists to identify how individual knowledge and attitudes are linked to use of traditional methods or to identify the relationship context of use. Prior studies have shown that some people do <u>not</u> use traditional methods because they fail to perceive withdrawal as a legitimate form of contraception, but more as a "practice,"[4,12] and that use of traditional methods is akin to is a game of Russian Roulette.[12] A study of German women found that knowledge of natural family planning methods was independently associated with interest in using these methods (though not with actual use).[6] Further, some literature exists to suggest that concerns regarding the side effects and risks of hormonal methods (either real or perceived) dissuade them from use,[12] making traditional methods appealing because they are free of hormones and other chemicals. One qualitative study of 95 ethnically-diverse, urban young men and women revealed that the use of traditional methods (in this case, withdrawal) is dependent on relationship context; that is to say, they do so because they have a trustworthy partner – the women trust the men to pull out and both men and women trust their partner to not have a sexually transmitted infection.[12] Other research has

found that both natural family planning and withdrawal have been used as "back-up" methods for teens and young adults who primarily rely on other contraceptive methods, such as condoms.[2]

The current study uses quantitative data from a nationally-representative sample of young adult men and women to identify the relative importance of knowledge, attitudes, and relationship characteristics in the decision to use traditional methods. Additionally, this study draws from qualitative data from a sample of racially and ethnically diverse young adult community college students to supplement quantitative findings. Results indicate that, for women, knowledge and attitudes regarding contraceptive methods affect whether they ever used in the past or currently use traditional methods. For men, however, the use of traditional methods is linked primarily to relationship characteristics. Preliminary analyses of our qualitative data suggest that young adults have considerable concerns about side effects that may affect their choice of methods and that they lack knowledge of traditional methods. This data also suggests that young adults may not even consider traditional methods as contraception, and that those that use it do so because when they don't have access to other contraceptive methods or when they are caught up on the heat of the moment during sexual encounters.

Methods

Data

Quantitative data for this study were drawn from the National Survey of Reproductive and Contraceptive Knowledge (the "Fog Zone" study), a survey of 1,800 unmarried 18 to 29 year-olds, nationally representative with respect to gender, age, and race/ethnicity.[9] Data from this survey were collected in fall 2008 and spring 2009 via telephone interviews using a random digit dial sample (25 percent), a targeted sample of listed telephone numbers (15 percent), and a random sample of cell phone numbers (60 percent).[10] The sample was approximately equal in gender, consisting of 959 males and 841 females, and, due to an oversampling of minority racial and ethnic subgroups, consisted of 60 percent white, 16 percent black or African American, 17 percent Hispanic, and 7 percent Asian or Pacific Islander or other racial/ethnic group respondents.

In the current study, the analytic sample included all young adult men and women who had valid sampling weights, who had sexual intercourse in the previous year, who were not currently pregnant or seeking a pregnancy, and who were not currently medically sterile (N=1,148). Because the survey did not include a measure of sexual activity in the previous month, the analytic sample used for analyses examining current use of traditional methods is restricted to those with a current sex partner who reported using some method of contraception in the previous month (N=779). Thus, the reference category for analyses of current method use is use of another method of contraception (e.g., condoms or hormonal methods).

Qualitative data were drawn from a sample of 101 male and female community college students ages 18-29. This study was conducted between February 2009 and January 2010, with the aim of gaining an in-depth understanding of students' relationships and contraceptive behaviors and decision-making, and how these may be related to their goals and aspirations. Qualitative interviews were conducted with a sample of students from racially and ethnically diverse

backgrounds, including whites, blacks, Hispanics, and Asians. Eighty-five were re-interviewed six months after the initial interview, with the aim of examining to changes in the young adults' relationships and contraceptive behaviors.

Quantitative Measures

Dependent variables: Traditional method use. Two measures of traditional method use were used: ever use and current use. Respondents were first asked if they had ever heard of withdrawal and if they had ever heard of rhythm method or natural family planning methods (such as the calendar method, temperature or mucous tests, the Billings method, or periodic abstinence). If they had heard of these methods, they were then asked if they had ever used each method (ever use). If they reported that they had ever used the method, they were subsequently asked if they had used that method in the previous month (current use). In the case of these analyses, use of one method did not preclude use of any other method.

Independent variables: knowledge about contraception and reproduction. Knowledge variables included three questions regarding knowledge about the relative effectiveness of various contraceptive methods (the pill *vs.* condoms, the shot *vs.* condoms, and withdrawal *vs.* no method). These questions were only asked of females. Additionally, we used two other measures of knowledge: ever having received sexual or reproductive health care from a doctor or clinic and sources of sexual and reproductive health knowledge (friends/partners, parents/relatives, the media, teachers/ministers, or doctors, the reference group). Finally, we included a measure of receipt of sex education (abstinence-only/abstinence-focused sex education, comprehensive sex education, or no sex education, the referent).

Independent variables: attitudes about contraception and reproduction. We include three measures of attitudes: concern about side effects from hormonal methods (believing that it is quite or extremely likely that hormonal methods will cause weight gain, serious health problems, decreased sex drive, and mood swings), fatalism (the belief that pregnancy will happen when it's meant to happen), and motivation to avoid pregnancy (based on self-reports of how upset they would be if they got pregnant/got someone pregnant at this time.

Independent variables: relationship characteristics. Relationship characteristics included current relationship status (dating/sexual relationship, cohabiting relationship, or no relationship, the reference group), multiple past year sexual partners (more than one partner in the previous year), ever use of a hormonal method (by the respondent or one of the respondent's partners), and childbearing (if they had ever had a child).

Control variables: individual characteristics. We controlled for several individual characteristics: race/ethnicity (black, Hispanic, or white/other race, the reference group), age, religion (Christian or non-Christian), current employment/enrollment, and income (based on receipt of public assistance in the previous year.

Analytic Methods

For quantitative analyses, t-tests and chi-square tests were used to assess differences between independent variables and individual characteristics by gender and by use/non-use of traditional methods. Logistic regressions were used to produce the odds ratios of associations between knowledge, attitude, and relationship characteristics and ever and current use of traditional methods (controlling for individual characteristics). All analyses were weighted and accounted for survey design effects.

For qualitative analyses, discussion summaries of interviews were drafted and audio recordings were transcribed. Data were analyzed using an inductive approach. Additionally, study staff identified initial themes during debriefing sessions which were held during the field period. The coding scheme was continually updated and refined using an iterative approach as described by Krueger and Casey.[5] The data were coded and analyzed using NVIVO 8, a qualitative software package which allow users to store, code, manage and explore the data. Qualitative analyses focused primarily on themes related to knowledge, attitudes and relationship characteristics that may influence method choice.

Preliminary Results

Quantitative Descriptive Results

Traditional method use and individual characteristics. As a whole, 59 percent of the quantitative sample reported ever using a traditional method and 25 percent reported currently using traditional methods (within the past month) (Table 1). Of these 86 percent had used withdrawal, two percent had used natural family planning methods, and 12 percent had used both. The analytic sample was approximately equal in gender; two third (66 percent) of the sample were white, with 16 percent were black, and 18 percent were Hispanic. Among men, white men were the most likely to report ever using TM. The greatest proportion of respondents (40 percent) were between the ages of 20 and 24, with 26 percent aged 18 or 19 and 24 percent aged 25-29. Two third (65 percent) of the sample were Christian. Nearly half (45 percent) had some college education or greater, the vast majority (87 percent) were currently employed or enrolled in school, and only 11 percent reported receiving public assistance in the previous year. Men who were employed or enrolled were more likely to have used TM, and those that had received public assistant were less likely to have used these methods.

Knowledge. Among the women, nearly half (47 percent) had incorrect knowledge about the relative effectiveness of the pill *versus* condoms, more than two thirds (37 percent) had incorrect knowledge about shot *versus* condoms, and nearly a quarter (24 percent) had incorrect knowledge about withdrawal *versus* no method. Women who had incorrect knowledge of the relative effectiveness of various contraceptive methods were more likely to have ever used TM. Among the whole sample, the majority (79 percent) received some form of sex education and two thirds (67 percent) reported ever receiving sexual or reproductive health care from a doctor or clinic, though women were significantly more likely to report receipt of service than men. Men who had received such services were more likely to report ever using TM. Women were more likely than men to receive their sexual health knowledge from doctors than men, whereas men were more likely to have received their knowledge from friends/partners, from teachers/ministers, or from media sources than women.

Attitudes. More than a third of the sample (36 percent) reported being concerned about various side effects related to hormonal contraceptive methods, and men were more likely than women to report these fears. Women who had these fears were more likely to report ever using TM. Additionally, four out of ten respondents reported that they believed that pregnancy would happen when it was meant to happen. Nearly all (89 percent) reported that they would be upset if they got pregnant/got someone pregnant at that point in their lives. Women who were motivated to avoid pregnancy were less likely to have used TM, men who were motivated to avoid pregnancy were more likely.

Relationship characteristics. Seven out of 10 respondents reported that they were currently in some type of relationship, thought four of our 10 also reported that they had more than one sex partner in the previous year (three out of 10 women and five out of 10 men). Men who had multiple past year partners were more likely to report having used TM. Seven out of ten reported that they or their partner had ever used a hormonal method (eight out of 10 women and six out of 10 men), and the men that reported using hormonal methods also reported using traditional methods. A quarter (25 percent) reported that they had had a child (37 percent of women and 14 percent of men), and the women who reported that they had a child were more likely to report using TM.

Qualitative Descriptive Results

The qualitative study was approximately 60 percent female and 40 percent male. Roughly 60 percent of student participants attended an urban school while roughly 40 percent attended a rural school. Among those interviewed, whites made up 34 percent of the sample and Hispanics, blacks and Asians comprised 22, 37 and 8 percent of the sample, respectively. Among those participating in focus groups, roughly one-half were black, 20 percent were white, 27 percent were Hispanic and two percent were Asian. Most students who participated in the semi-structured interviews and focus groups were between the ages of 18 and 19, earned less than $10,000 in the past year, and were dating or having sex with one person. Students who were interviewed were predominantly U.S. born and worked part-time. Six percent had children.

Multivariate Results: Ever Use

Women

Knowledge. Women who were incorrect regarding the relative effectiveness of pills *versus* condoms or the shot *versus* condoms had more than twice the odds of ever having used traditional methods than those who were correct (odds ratios (ORs): 2.00 and 2.14, respectively) (Table 3). Those who were incorrect about the relative effectiveness of withdrawal *versus* no method had lower odds of ever using traditional methods (OR: 0.34). Those who relied on their friends or partners for sexual health knowledge had greater odds of having used TM (OR: 2.51), whereas those who turned to teachers or religious leaders had lower odds (OR: 0.07).

Attitudes. Women who were concerned about side effects from hormonal methods had more than twice the odds of used TM (OR: 2.08). Those who indicated that they were highly motivated to avoid pregnancy had lower odds of ever having using TM (0.21).

Relationship characteristics. Women who had ever used a hormonal method or who had ever had a child had nearly two to three times the odds, respectively, of having ever used TM (ORs: 1.88 and 2.88).

Individual characteristics. Older young adult women had lower odds of having used TM (OR: 0.91).

Men

Knowledge. Men who had ever received sexual and reproductive health care from a doctor or clinic had greater odd of having ever used traditional methods (OR: 1.58).

Attitudes. Among men, no measures of contraceptive attitudes were significantly associated with ever using TM.

Relationship characteristics. Compared to those who were not currently in a relationship, those who were currently in a dating or sexual relationship were marginally had greater odd of having ever used TM (OR: 1.42). Those than had more than one partner in the past year or that had had a partner that used hormonal methods had approximately twice the odds, compared to those who had not ever used TM (ORs: 2.09 and 1.99, respectively). Those who reported having had a child were marginally had greater odd of having ever used TM (OR: 1.78).

Individual characteristics. Hispanic men had lower odds than white men of having ever using TM, and Christian men had greater odds than non-Christian men of reporting use (ORs: 0.55 and 1.73, respectively).

Multivariate Results: Current Use

Women

Knowledge. Women who had ever received sexual and reproductive health care from a doctor or clinic had marginally lower odds of currently using traditional methods (OR: 0.24). Additionally, those who were incorrect regarding the relative effectiveness of withdrawal *versus* no method had lower odds of currently using traditional methods than those who were correct (OR: 0.32) (Table 4).

Attitudes. Quantitative results revealed that those who indicated that they were highly motivated to avoid pregnancy had lower odds of using TM (OR: 0.24). Additionally, as with ever use, women who were concerned about side effects from hormonal methods had more than twice the odds of currently using TM (OR: 2.81).

Relationship characteristics. Women who had multiple past year sex partners had more than two and a half times the odds of currently using TM (OR: 2.69). Those who had ever used hormonal methods had lower odds of currently using TM (OR: 0.35).

Individual characteristics. Women who were employed or enrolled in school at the time of the survey had lower odds of currently using TM (OR: 0.28).

Men

Knowledge. Among men, no measures of contraceptive knowledge were associated with currently using traditional methods.

Attitudes. No measures of contraceptive attitudes were associated with currently using TM.

Relationship characteristics. Compared to those who were not currently in a relationship, those who were currently in a dating or sexual relationship or who were currently in a cohabitating relationship had three and a half to four times the odds, respectively, of currently using TM (ORs: 3.56 and 4.05). Those who had more than one partner in the past year had more than five times the odds of currently using TM (OR: 5.24). Those who had had a partner that used hormonal methods had approximately twice the odds as those who did not of currently using TM (OR: 1.95).

Individual characteristics. No measures of individual characteristics were associated with currently using TM.

Qualitative research findings: some preliminary themes

We incorporated analyses of qualitative data to better understand the significant effects of knowledge, attitudes and relationships characteristics on traditional method use in our multivariate analyses. Initial themes emerged in our analyses, but we plan to complete more thorough analyses for this paper.

Young adults often do not perceive that traditional methods are contraceptive methods
Our analyses revealed that, while many young adults used traditional methods – particularly withdrawal – they noted that they had reservations about the efficacy of this method:

> INT: What do you like the most about condoms and withdrawal?
> P: Uh, withdrawal feels better, but it's riskier. And condoms is safer.

Moreover, in many cases, the young adults in the qualitative sample did not perceive or refer to traditional or non-hormonal methods (withdrawal or the rhythm method) as contraception. While many students had heard of contraceptive options such as the NuvaRing, the Patch and the Shot, students were much less familiar with other methods such the rhythm method. Further, analyses revealed that the young adults who had used withdrawal (one type of traditional method) appeared to be the least knowledgeable about sexual and reproductive health, and birth control, more generally. These young adults suggested that they used it because "something was better

than nothing." As a whole, young women acknowledged the role of knowledge in choosing contraceptive methods:

> INT: What are some other reasons [for not using birth control]?
> P: Knowledge in general….
> A lot of people don't know the different types of birth controls, so they don't put the effort to actually get it. ….And I know many people that won't have... fully trust either.
> INT: Trust of what?
> P: Trust that it would be effective. Like you think that you are still going to get pregnant even if you are on birth control pills.

This statement reinforces the important link between knowledge and method use, including perceptions of method effectiveness – for example, if young adults do not perceive that hormonal methods are much more effective than traditional methods, they will be more likely to rely on traditional methods, in particular if they have concerns about side effects.

Attitudes about side effects influence method choice

The positive association between perceptions of side effects for hormonal methods and reliance on more traditional methods is partially supported by qualitative data. For example, the majority of the young adults in the qualitative sample reported being concerned about the side effects related to hormonal methods, although only a fraction said that they looked into or used alternative methods as a result of those fears.

Use of withdrawal as a passive decision or back-up method

The majority of the young adults included in the qualitative analyses reported that the use of traditional methods, specifically the use of withdrawal, was often a "passive decision" on the part of females. Below, Sasha, a 19-year-old Hispanic female describes how the decision to use withdrawal occurred by her partner in the context of their relationship, thus implicating the role of relationship dynamics in men's decision to use TM:

> P: Yeah. 'Cause it wasn't like my partner was a newbie at it, so he …. knew what he was doing. I was like, "Huh?" (laughs)
> INT: So it was mostly your partner that was just like, "Yeah, this will work. Let's do that."
> P: Yeah, pretty much . . . Just because…withdrawing is kind of letting it all be under his control.

Though this participant noted that she left the choice of using withdrawal up to her partner, this statement makes it clear that her male partner's decision to use this traditional method occurred within the context of her relationship with her partner.

Preliminary Discussion

This paper highlights that a substantial percentage of young adults have ever used traditional methods of contraception (59%) and between one-quarter of young adults used either natural family planning or withdrawal as a method in the past month. These estimates of current use are much higher than estimates in a national sample (which found that 3-6% relied on these methods in the past month). This difference in estimates is due, in part, to the fact that young adults in the quantitative sample often reported both a traditional method and another method in the past month, highlighting the use of traditional methods as back-up methods.

As hypothesized under a health belief model, we found that knowledge, attitudes and relationship characteristics were associated with traditional method use. For women, incorrect knowledge of the higher effectiveness of hormonal methods was associated with greater odds of having ever used traditional methods. In addition, for women, having high levels of concerns about side effects from hormonal methods was associated with increased odds of ever and currently using traditional methods. These findings support the need for better knowledge about effectiveness and the likelihood of side effects so that young adults can make informed decisions about contraceptive methods. Although research has highlighted that there *are* side effects associated with hormonal methods, young adults often have inflated concerns. Preliminary analyses of our qualitative data suggest that young adult women may not even consider hormonal methods as a contraceptive option if they have very high concerns about side effects and perceive limited additional effectiveness benefits for transitional to hormonal methods.

Finally, male use of traditional methods in our multivariate analyses appear to be based more on relationship factors than on individual knowledge or attitudes, suggesting that some decisions about method use are made by their partners.

Our next steps are to finalize our analyses of qualitative data to better understand and describe our multivariate findings.

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Table 1. Sample Characteristics of Young Adults in the U.S. aged 18-29 at Risk for Unintended Pregnancy[a]

	Total (N=1148) Weighted %	Women (N=578) Weighted %	Men (N=570) Weighted %	Gender Differences
Traditional Method Use				
Ever	59.0	60.8	57.4	
Current (past month)	24.8	22.4	27.1	+
Knowledge				
Incorrect knowledge of relative effectiveness:				
Pill vs. Condom†	-	46.9	-	-
Shot vs. Condom†	-	36.9	-	-
Withdrawal vs. Nothing†	-	24.4	-	-
Been to clinic/doctor for sexual health care	67.0	91.3	44.9	**
Past year sources of sexual healthy knowledge				
Doctor	27.9	51.1	8.3	**
Friends/partner	20.4	11.8	31.2	**
Parent/relative	11.0	10.8	11.0	
Teacher/minister	5.0	3.0	6.7	**
Internet/books/TV/radio	35.8	23.3	42.7	**
Sex education				
No sex education	21.2	21.7	20.5	
Abstinence only/abstinence-focused	50.0	50.2	49.9	
Comprehensive (contraceptive-focused)	28.9	28.2	29.6	
Attitudes				
Side Effect Concerns	35.6	31.5	39.3	**
Fatalism (pregnancy will happen when it's meant to happen)	39.4	39.9	39.0	
Motivation to avoid pregnancy	88.9	90.7	87.2	+
Relationship Characteristics				
Relationship status				
No relationship	30.5	26.0	34.6	**
Dating/other sexual relationship	50.1	50.2	50.0	
Cohabiting	19.4	23.8	15.4	**
Multiple past year sex partners (2+)	43.1	32.5	52.7	**
Ever used/partner used hormonal	71.3	81.6	61.9	**
Have any children	24.7	36.5	14.1	**
Individual Characteristics				
Race/ethnicity/Nativity status				
White/other	66.1	66.9	65.3	
Black	16.2	19.2	13.5	**
Hispanic	17.8	14.0	21.2	**
Age				
18-19	25.6	25.3	259.0	
20-24	40.0	40.8	39.3	
25-29	34.4	33.9	34.8	
Catholic, Protestant, other Christian	65.0	68.4	61.9	*
Attained some college education or greater	45.4	42.6	52.0	+
Currently employed/enrolled	87.1	85.1	89.0	*
Received past year public assistance	10.8	16.7	5.4	*

** $p<0.01$, * $p<0.05$, † $p<0.10$

† Only asked of women

[a] Individuals who have had sexual intercourse in the previous year, not pregnant/seeking a pregnancy, and not sterile

Table 2. Sample Characteristics of Young Women and Men aged 18-29 at Risk for Unintended Pregnancy[a] who Have Ever Used/Currently Use Traditional Methods

	Women (N=578)				Men (N=570)			
	Ever Used Weighted %		Current Use[b] Weighted %		Ever Used Weighted %		Current Use[b] Weighted %	
Knowledge								
Knowledge of relative effectiveness:								
Pill vs. Condom†		**		**				
Incorrect Knowledge	69.2		36.5		-		-	
Correct Knowledge	53.3		24.8		-		-	
Shot vs. Condom†		**		*				
Incorrect Knowledge	72.3		37.0		-		-	
Correct Knowledge	54.1		26.2		-		-	
Withdrawal vs. Nothing†		**		**				
Incorrect Knowledge	47.9		18.2		-		-	
Correct Knowledge	64.9		34.2		-		-	
Been to clinic/doctor for sexual health care				*		*		
Been to clinic/doctor for sexual health care	60.5		29.0		63.2		42.7	
Has not been to clinic/doctor for sexual health care	64.1		50.3		52.6		37.9	
Past year sources of sexual healthy knowledge		+		*				
Doctor	58.1		23.6		65.7		54.3	
Friends/partner	79.0		60.9		64.5		41.4	
Parent/relative	65.7		24.6		61.4		34.7	
Internet/books/TV/radio	60.2		36.7		50.4		39.1	
Teacher/minister	21.9		0.0		51.7		31.6	
Sex education								
No sex education	55.2		31.6		46.8		40.9	
Abstinence only/abstinence-focused	65.3		29.5		62.3		42.5	
Comprehensive (contraceptive-focused)	57.0		30.5		56.4		36.0	
Attitudes								
Side Effect Concerns		**		**				
Concerned about Hormonal Contraceptive Side Effects	72.4		47.9		52.0		39.0	
Not concerned about Hormonal Contraceptive Side Effects	55.4		22.3		60.8		41.0	
Fatalism (pregnancy will happen when it's meant to happen)								
Believes that pregnancy will happen when it's meant to	63.9		30.7		59.5		43.1	
Does not believe that pregnancy will happen when it's meant to happen	58.7		29.9		56.0		38.7	
Motivation to avoid pregnancy		**				+		**
Motivated to avoid pregnancy	58.9		29.7		58.9		42.6	
Not motivated to avoid pregnancy	81.5		35.2		47.1		20.4	
Relationship Characteristics								
Relationship status								
No relationship	57.6		25.3		50.5		27.5	
Dating/other sexual relationship	61.0		35.0		61.8		45.6	
Cohabiting	63.9		23.8		58.5		34.4	

Table 2. continued

Multiple past year sex partners (2+)			*			**		**
Had multiple past year partners	63.9		36.9		65.7		53.1	
Did not have multiple past year partners	59.3		26.5		48.1		25.4	
Ever used/partner used hormonal				**		**		**
Has used a hormonal method	62.1		26.2		64.3		46.0	
Has not used a hormonal method	55.0		60.0		46.1		26.1	
Have any children		**		*		*		
Has had a child	71.6		37.5		68.1		48.9	
Has not had a child	54.6		26.0		55.6		38.7	
Individual factors								
Race/ethnicity/Nativity status						**		
White/other	59.4		28.5		64.5		44.0	
Black	66.6		39.7		43.9		31.8	
Hispanic	59.4		28.5		44.1		33.2	
Age								
18-19	62.8		33.7		59.4		47.2	
20-24	63.9		28.9		58.8		39.0	
25-29	55.6		29.6		54.3		37.0	
Religion						**		+
Catholic, Protestant, other Christian	60.0		29.9		63.1		43.8	
Other	62.4		30.8		48.1		34.9	
Educational attainment		*	**					
HS/GED or less	66.0		38.5		54.7		37.9	
Some college or more	56.9		24.8		59.9		42.1	
Currently employed/enrolled				**		*		
Currently employed/enrolled	59.6		25.0		59.0		41.3	
Not currently employed/enrolled	67.4		62.9		43.8		31.9	
Income						*		
Received past year public assistance	66.9		33.9		35.8		27.7	
Did not receive past year public assistance	59.6		29.3		58.6		41.4	

** p<0.01, * p<0.05, † p<0.10 significant difference in percent who used TM, by characteristics

† Only asked of women

[a] Individuals who have had sexual intercourse in the previous year, who are not currently pregnant or seeking a pregnancy, and who are not currently sterile

[b] Current use was defined as use in the past month; weighted percents were calculated among the 423 women and 356 men with a current sex partner who reported using some method of contraception in the previous month

Table 3. Odds Ratios for Associations between Knowledge, Attitudes, and Relationship Characteristics and Ever Use of Traditional Methods[a]

	Women (N=578)		Men (N=570)	
Knowledge				
Incorrect knowledge of relative effectiveness:				
Pill vs. Condom†	2.00	*	-	
Shot vs. Condom†	2.14	*	-	
Withdrawal vs. Nothing†	0.34	**	-	
Been to clinic/doctor for sexual health care	0.52		1.58	*
Past year sources of sexual health knowledge (vs. doctor)				
Parent/relative	1.40		0.99	
Friends/partner	2.51	†	1.48	
Internet/books/TV/radio	0.85		1.11	
Teacher/minister	0.07	**	1.60	
Sex education (vs. no sex education)				
Abstinence only/abstinence-focused	1.43		1.25	
Comprehensive (contraceptive-focused)	1.34		1.15	
Attitudes				
Side Effect Concerns	2.08	*	0.82	
Fatalism (pregnancy will happen when it's meant to happen)	0.93		0.87	
Motivation to avoid pregnancy	0.21	**	0.95	
Relationship Characteristics				
Relationship status (vs. no relationship)				
Dating/other sexual relationship	1.39		1.42	†
Cohabiting	1.00		1.16	
Multiple past year sex partners (vs. 1)	1.35		2.09	**
Ever used/partner used hormonal	1.88	†	1.99	**
Have any children	2.88	**	1.78	†
Individual Characteristics				
Race/ethnicity/Nativity status (vs. white)				
Black	1.27		0.68	
Hispanic	0.99		0.55	*
Age	0.91	*	0.96	
Catholic, Protestant, or other Christian (vs. other)	0.90		1.73	**
Some college or more (vs. less than college)	1.29		0.87	
Currently employed/enrolled (vs. no)	1.21		1.21	
Received past year public assistance (vs. no)	1.10		0.83	

** $p<0.01$, * $p<0.05$, † $p<0.10$

† Only asked of women

[a] Young adults who have had sexual intercourse in the previous year, who are not currently pregnant or seeking a pregnancy, and who are not currently sterile

Table 4. Odds Ratios for Associations between Knowledge, Attitudes, and Relationship Characteristics and Current (Past Month) Use of Traditional Methods[ab]

	Women (N=423)		Men (N=356)	
Knowledge				
Incorrect knowledge of relative effectiveness:				
Pill vs. Condom†	1.41		-	
Shot vs. Condom†	1.59		-	
Withdrawal vs. Nothing†	0.32	*	-	
Been to clinic/doctor for sexual health care	0.24	+	1.38	
Past year sources of sexual health knowledge (vs. doctor)				
Parent/relative	0.64		0.59	
Friends/partner	2.56		0.56	
Internet/books/TV/radio	1.07		0.97	
Teacher/minister	-	-	0.59	
Sex education (vs. no sex education)				
Abstinence only/abstinence-focused	1.16		0.95	
Comprehensive (contraceptive-focused)	1.72		0.82	
Attitudes				
Side Effect Concerns	2.81	**	0.79	
Fatalism (pregnancy will happen when it's meant to happen)	1.02		1.04	
Motivation to avoid pregnancy	0.24	*	2.11	
Relationship Characteristics				
Relationship status (vs. no relationship)				
Dating/other sexual relationship	2.07		3.56	**
Cohabiting	0.75		4.05	*
Multiple past year sex partners (vs. 1)	2.69	*	5.24	**
Ever used/partner used hormonal	0.35	*	1.95	+
Have any children	1.99		1.57	
Individual Characteristics				
Race/ethnicity/Nativity status (vs. white)				
Black	1.76		0.53	
Hispanic	1.02		0.67	
Age	1.00		0.92	
Catholic, Protestant, or other Christian (vs. other)	1.10		1.60	
Some college or more (vs. less than college)	1.32		0.92	
Currently employed/enrolled (vs. no)	0.28	*	1.52	
Received past year public assistance (vs. no)	0.83		0.76	

** p<0.01, * p<0.05, + p<0.10

† Only asked of women

[a] Young adults aged 18-29 who have had sexual intercourse in the previous year, who are not currently pregnant or seeking a pregnancy, and who are not currently sterile

[b] Current use was defined as use in the past month; weighted percents were calculated among the 423 women and 356 men with a current sex partner who reported using some method of contraception in the previous month