Willingness to Have Unprotected Sex

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Introduction

Unprotected sex—defined here as heterosexual vaginal intercourse by couples not actively seeking pregnancy and not using a contraceptive method—is poorly understood from a public health perspective. There is little information on the frequency of unprotected sex, who is most at risk, and why couples engage in risky behavior. More easily observable is one of the consequences of unprotected sex —unintended pregnancy.

An estimated 3.1 million unintended pregnancies are experienced by women in the United States each year and just over half (52%) of these are experienced by women who did not use any method of contraception in the month of conception.[1] Assuming a probability of conception per act of unprotected intercourse of 0.03,[2] at least 54 million acts of unprotected sex occur in the United States each year.

Studies have shown that approximately one in ten women at risk of an unintended pregnancy do not use any method of contraception.[3 4] Yet these numbers may overestimate the extent of contraceptive use since even couple who have a regular method of contraception may have episodes of unprotected sex. In an analysis of one year of U.S. women's contraceptive use patterns, 15% of women had a gap in contraceptive use and 8% used no contraceptive method at all.[5]

There are multiple reasons couples may have unprotected sex even when they are not actively seeking pregnancy. Many reasons pertain to barriers to contraceptive use, such as poor access to contraceptives,[6 7] dissatisfaction with family planning services,[8] lack of knowledge of contraceptive methods, experience with or fear of side effects,[9 10 11 12] the cost of contraceptives,[13] and the difficulty or inconvenience of using contraceptive methods.[14 15 16 17 18] Another important barrier is that women may lack the ability to negotiate use of contraceptives with a partner.[19 20 21]

However, even when couples are able to negotiate contraceptive use, sexual and relationship factors have the potential to contribute to deliberately unprotected sex, even in the absence of desire for a pregnancy. Scholarship on condom use indicates that people may abandon condoms in an effort to facilitate both physical and emotional closeness,[22 23 24] or simply because of significant sexual desire.[25] Couples may abandon contraceptives if they perceive that contraceptives diminish sexual pleasure and enjoyment.[26] One study found that adolescents engage in unprotected sex to express love, experience pleasure, enhance mood, and please their partners.[27] Another study found that young women were less likely to use a contraceptive method on the days when they felt particularly close to or connected with their partner.[28] Moreover, qualitative evidence suggests that some people may deliberately risk an

unintended pregnancy, even though a child is not wanted, because doing so may heighten the sexual experience, strengthen a relationship, or test one's fertility and procreative ability.[29]

Pregnancy ambivalence may also contribute significantly to a couple's willingness to engage in unprotected sex. The willingness to take the risk of conception is likely related to the strength of couples' desire to avoid pregnancy and perceptions of how an unintended pregnancy would affect life plans. In a recent analysis of 1,978 adult women, ambivalence around pregnancy was one of the strongest predictors of both contraceptive nonuse and having a gap in use while remaining at risk for unintended pregnancy.[30] Attitudes toward pregnancy, even among women not actively seeking pregnancy, range from a pregnancy making a woman "feel like you are dying" to feeling like "perfect health."[31]

Couples who are not actively trying to become pregnant may not use contraception when their judgment is impaired, for example due to drug or alcohol use.[32 33]

Finally, after having several episodes of unprotected intercourse in which they did not conceive, some couples may believe that they are not fertile, increasing the risk of future acts of unprotected intercourse.[34 35 36] According to one study, belief that one is infertile is a leading cause of non-use of contraceptive methods among women at risk of an unintended pregnancy.[37]

In spite of this multitude of reasons why people may engage in deliberately unprotected sex, we have little empirical data on people's perceived willingness to take pregnancy risks, or on the characteristics of people most likely to engage in unprotected sex. The purpose of this study is to examine willingness to have sex without birth control among women and men who are not actively seeking pregnancy. We identify characteristics associated with risk taking and explore some covariates to explain willingness to engage in unprotected sex.

Methods

The study population was composed of clients in the state-administered California Family Planning, Access, Care and Treatment (Family PACT) Program. Family PACT provides contraceptive and reproductive health services to more than 1.6 million women and men each year. Those eligible for Family PACT include all women and men residing in California with incomes less than 200% of the Federal Poverty Level and who have no other source of confidential family planning health care coverage. There are currently more than 2,000 health clinics and doctors' offices throughout the state providing services through Family PACT. Eighty Family PACT providers in 13 counties were randomly selected to be recruiting sites for this study between August 2007 and February 2008. The 13 counties represented a cross-section of rural and urban areas, and northern, southern, and central California. The sampling frame excluded providers who had seen fewer than 12 Family PACT clients per day in the previous year. Of the 80 selected providers, 75 (94%) agreed to participate in the study. Of the 5

providers who were not in the final sample, three providers were no longer seeing Family PACT clients; one could not be located and one refused to participate.

The interview was performed as part of the Family PACT evaluation by University of California San Francisco (UCSF) Bixby Center for Global Reproductive Health and the Public Health Institute. Clients participating in the study signed an informed consent form to participate and received an information sheet approved by the UCSF Committee for Human Research the State of California Health and Human Services Agency's Committee for the Protection of Human Subjects, and the Public Health Institute's Institutional Review Board. The sheet detailed the risks and benefits to study participants, and provided research staff contact information.

Fourteen female bilingual interviewers were recruited and trained to conduct interviews in both English and Spanish. Each interviewer posted a sign onsite at selected provider sites to solicit participation in the survey. At most sites, clinic staff also helped to recruit participants as clients checked in or out for their appointment. Interviewers aimed to get 20 interviews per site. All Family PACT clients who received services on a scheduled interview day were eligible to participate in the study. Services could include contraceptive services, including provision of barrier methods, sexually transmitted infection (STI) testing and treatment, pregnancy test, education and counseling, and/or sterilization. Abortion is not a covered Family PACT service. Clients were given $20 upon completion of the interview. The average interview length was 13 minutes (the range was 5 to 45 minutes).

The interview tool consisted of 118 items covering topics such as pregnancy and birth history, contraceptive and STI services, STI risk behaviors, satisfaction with health care, access to general health services, and referrals. Respondents were asked "Would you have sex even if you did not have birth control?" and were offered three responses: "Yes", "sometimes or maybe", and "no." This question appeared after questions about their main method of contraception before and after the visit, the birth control methods they discussed during their visit, barriers to use of the intrauterine device (for female respondents) and what method they would use if contraceptives were not provided free through Family PACT.

In presenting the factors that are associated with willingness to have sex without birth control, we tested all cross tabulations using analysis of variance tests to determine significance between groups. We used multivariate logistic regression models to determine the variables predictive of giving a response of "yes" or "sometimes/maybe" to the question about willingness to have sex without birth control. Our predictive variables of interest included age, sex, race/ethnicity, parity, relationship status and whether and when they wanted more children.

Results

Sample Characteristics

1,497 clients at the 75 participating providers responded to the exit interview upon completion of their Family PACT visit. Response rates were high; nine out of ten clients (90%) who were approached agreed to participate. One quarter of the interviews (26%) were conducted at Planned Parenthood clinics, followed by group medical practices (23%), other community or free clinics (22%) and private doctors' offices (13%). Overall, 61% of the study respondents were clients of public or nonprofit providers and 39% were seen by private for-profit providers. The purpose of the visit was birth control for 46% of women and 13% of men; annual exam for 31% of women and 19% of men; and STI services for 11% of women and 60% of men. More than three quarters (79%) of the female respondents and two thirds (68%) of the male respondents reported that they had discussed their birth control needs and specific contraceptive methods during the visit.

Table 1 shows the distribution of characteristics of respondents in this study. The characteristics of the Client Exit Interview respondents are similar to the demographic profile of the Family PACT Program as a whole.[38] We excluded women and men who were pregnant or whose partners were pregnant (n=43) or seeking pregnancy (n=29), those who had been sterilized (n=13) and those who said they did not know if they would have sex without birth control (n=30). More than half of the respondents were in their twenties (52%) with 18% under the age of 20, 22% in their thirties and 9% 40 years or older. One in eight respondents was male. Regarding marital status, 22% of respondents were married, 25% were not married but living with a partner, 25% were in a relationship but not living together, and 18% were single and not in a relationship. Half (49%) of the respondents had no children, 18% had one child, 17% had two children and 15% had three or more children.

Consistent with the population served by Family PACT, two thirds (66%) of respondents were Latino, 16% were White, 7% were African American, and 7% were Asian or Pacific Islander, and 4% gave their race/ethnicity as other. Sixty percent of Latinos responded to the survey in Spanish. Due to presumed differences in level of acculturation, Latinos who responded to survey in Spanish and those who chose English were treated as two discrete groups in our race/ethnicity variable. However, because the interviews were only done in English and Spanish, clients who could not communicate in either of these languages were excluded from the Client Exit Interview. According to the 2007/08 Family PACT annual report, four percent of the clients served by Family PACT have a primary language other than English or Spanish, however, some of these clients may have been able to do the survey in English or Spanish.

Table 1: Characteristics of respondents			
Total		1,382	100%
Age			
	<20	242	18%
	20-29	713	52%
	30-39	304	22%
	40+	122	9%
gender			
	male	156	11%
	female	1226	89%
Parity			
	no children	692	50%
	1 child	244	18%
	2 children	237	17%
	3+ children	208	15%
language & race/ethnicity			
	Latino; interview in Spanish	553	40%
	Latino; interview in English	358	26%
	non Latino White	227	16%
	African American	94	7%
	Asian/Pacific Islander	90	7%
	Other	57	4%
relationship status			
	married	301	22%
	cohabiting	346	25%
	in a relationship (not cohabiting)	488	35%
	not in a relationship	245	18%
reproductive Intentions			
	wants no more children	386	28%
	wants a child in <=3 years	376	27%
	wants a child in >3 years	480	35%
	doesn't know	140	10%

Who would have sex without birth control? Results of bivariate analyses

Table 2 shows responses to the question, "Would you have sex even if you did not have birth control?" among the 1,382 women and men who responded to the question, were neither pregnant nor seeking pregnancy and had not been sterilized. Nearly one third of the respondents gave the answer

"yes", they would be willing to have sex even if they did not have birth control. Another 20% said that they might do it or would do it "sometimes." Half of respondents said that they would refrain from having sex if they did not have a method of birth control.

Younger respondents were more likely than older respondents to report that they are willing to have sex without birth control: 56% of teenagers and 54% of respondents in their twenties were willing to engage in sex without birth control compared to 46% of respondents in their thirties. There were no significant differences by gender of the respondent. Respondents who had zero children or one child were more likely to go without birth control than respondents with two or more children. There were differences by racial ethnic groups with English-speaking Latinos and African Americans more likely to report willingness to have sex without birth control. Unmarried respondents in a relationship, both those who were living with and apart from their partners, were more likely to report willingness to go without birth control than were married respondents. There were differences in willingness to go without birth control by when respondents wanted to have a/another child—respondents who said they wanted a/another child within the next three years were much more likely to report willingness to have sex without birth control than respondents who did not want any more children.

Table 2: Willingness to have sex without birth control among respondents who were not pregnant or seeking pregnancy

		yes	sometimes/ maybe	no	Total	N	P-value
Total		30%	20%	50%	100%	1,382	
Age							
	<20	34%	22%	44%	100%	242	*
	20-29	31%	22%	47%	100%	713	*
	30-39	26%	20%	54%	100%	304	reference
	40+	23%	11%	66%	100%	122	
Gender							
	male	28%	24%	47%	100%	156	reference
	female	30%	20%	50%	100%	1,226	
Parity							
	no children	33%	22%	45%	100%	692	*
	1 child	33%	21%	45%	100%	244	*
	2 children	24%	20%	56%	100%	237	
	3+ children	22%	16%	63%	100%	208	reference
language & race/ethnicity							
	Latino; interview in Spanish	23%	19%	58%	100%	553	
	Latino; interview in English	35%	25%	40%	100%	358	*
	non Latino White	29%	19%	52%	100%	227	reference
	African American	45%	19%	36%	100%	94	*
	Asian/Pacific Islander	32%	18%	50%	100%	90	
	other	42%	18%	40%	100%	57	*
relationship status							
	married	26%	16%	58%	100%	301	reference
	cohabiting	32%	20%	49%	100%	346	*
	in a relationship (not cohabiting)	32%	23%	45%	100%	488	*
	not in a relationship	28%	21%	51%	100%	245	
reproductive intentions							
	wants no more children	25%	18%	57%	100%	386	reference
	wants a child in <=3 years	39%	20%	41%	100%	376	*
	wants a child in >3 years	27%	22%	51%	100%	480	
	doesn't know	30%	22%	48%	100%	140	

* significant difference from the reference group at 0.05 level using an ANOVA F test.

Predictors of willingness to have unprotected sex in a multivariate model

When the characteristics shown in table 2 are combined in a multivariate model, we could identify which factors remain significantly associated with an increased willingness to have unprotected sex, even when other factors are held constant. Language/race/ethnicity and reproductive intentions remained statistically significant factors. See Table 3.

Two racial/ethnic groups stood out as having a higher likelihood of reporting a willingness to have unprotected sex. Compared to non-Latino white respondents, Latinos who responded to the survey in English were 52% more likely and African Americans are 75% more likely to report willingness to have unprotected intercourse. Latinos who responded to the survey in Spanish and Asian/Pacific Islanders were no more likely to report a willingness to have unprotected sex than white non-Latinos. Reproductive intentions were also significant predictors of willingness to have unprotected sex, even among women and men who were not actively seeking pregnancy. Clients who reported wanting a child within the next three years were 41% more likely to report being willing to have unprotected sex than respondents who want no more children.

The remaining three factors that were significant in the bivariate analyses – age, parity and relationship status – were not significant when examined together with race/ethnicity and reproductive intentions in a multivariate model.

Table 3: Factors associated with willingness to have unprotected sex among clients at family planning clinics

Variable		Odds Ratio	95% Confidence Interval
Age			
	<20	1.24	(0.81 , 1.89)
	20-29	1.16	(0.85 , 1.57)
	30+	Reference	
Gender			
	female	0.91	(0.64 , 1.30)
	male	Reference	
Parity			
	0	1.38	(0.87 , 2.21)
	1	1.46	(0.94 , 2.26)
	2	1.09	(0.73 , 1.64)
	3+	Reference	
language & race/ethnicity			
	Latino; interview in Spanish	0.81	(0.55 , 1.19)
	Latino; interview in English	1.52 *	(1.07 , 2.17)
	non Latino White	Reference	
	African American	1.75 *	(1.05 , 2.93)
	Asian/Pacific Islander	1.11	(0.67 , 1.82)
	other	1.55	(0.85 , 2.82)
relationship status			
	married	Reference	
	cohabiting	1.22	(0.88 , 1.70)
	in a relationship (not cohabiting)	1.25	(0.88 , 1.78)
	not in a relationship	1.01	(0.68 , 1.49)
reproductive intentions			
	wants no more children	Reference	
	wants a child in <=3 years	1.41 *	(1.01 , 1.96)
	wants a child in >3 years	0.74	(0.53 , 1.06)
	doesn't know	1.03	(0.68 , 1.56)

Data: Family PACT Client Exit Interview 2007/08
N = 1,382 family planning program clients, not pregnant, seeking pregnancy nor sterilized
* Significant at 0.05 level.

Discussion

Most unintended pregnancies in the U.S. are caused not by contraceptive failure but by lack of contraceptive use or gaps in use.[39] The literature's dominant explanations for nonuse relate primarily to contraceptive access and ease, effectiveness, side effects, and the woman's desire to space or limit births. In other words, practitioners tend to assume that most women *want* to use contraceptives, but can be stymied by access barriers, prohibitive expenses, or side effects. Most researchers have yet to explore how, why, and which couples engage in (or think they would engage in) deliberately unprotected sex, even when a child is not wanted.

This study of family planning clients in California is among the first to ask women and men directly about their inclination toward unprotected sex.[40 41] In previous studies, we and others have asked women who are at risk of unintended pregnancy about their contraceptive practices, identifying women who are not currently using contraception as most "at risk" of unintended pregnancy. In contrast, asking about *willingness* to engage in unprotected sex, even among those seeking or already using contraceptives, picks up the much larger group of people who might have a regular method but would nonetheless have sex without that or another method, either regularly or occasionally.

Our findings indicate that a considerable proportion of people say they would unprotected sex, even when they have access to subsidized contraceptive services—and even when recently counseled about birth control. When asked if they would have sex without contraception, a sizeable 30% said definitively that yes, they would have unprotected sex, and an additional 20% indicated they would "sometimes" or "maybe" engage in unprotected sex. These respective proportions may be even larger among the general population, since respondents in this study were at least somewhat motivated to avoid unintended pregnancy by attending a family planning clinic; moreover, respondents in our study may have minimized their own willingness to have unprotected sex due to interest in providing more socially desirable responses. Even with access to reproductive health services, and despite the potential undesirability of their responses, women and men still reported a significant willingness to take deliberate pregnancy risks through lack of contraceptive use.

One of the intentions of this study was to identify those people who were most likely to express willingness to have unprotected sex. Although findings were largely in the expected direction in univariate analyses, few factors remained statistically significant in multivariate analyses. It could that willingness to take pregnancy risk relates less to the demographic factors we have captured here and more to psycho-biological factors such as propensity for risk more generally or one's profile relating to sexual excitation and inhibition.[42] That said, three subgroup of people within our multivariate analyses were significantly more likely to report willingness to engage in unprotected sex—namely, those who said they wanted a child within the next three years, and two racial-ethnic groups (African Americans and Latinos who responded to the survey in English).

Reproductive intentions. Study participants with who said they wanted a child within the next three years were significantly more likely than those who wanted no more children to express willingness to have unprotected sex. These findings support the emerging literature on the power of pregnancy ambivalence in shaping contraceptive non-use.[43 44 45] Compared to those who have completed or nearly completed their desired childbearing, women and men who want another child in the near future may be less invested in preventing a pregnancy at all costs. Qualitative evidence suggests that people may deliberately risk an "unintended" pregnancy, even though a child is not fully wanted, because doing so may heighten the sexual experience, strengthen a relationship, or confirm one's fertility.[46] Moreover, at the clinical level, we have encountered substantial anecdotal evidence suggesting that many people wonder if they can get pregnant at all, especially if previous episodes of unprotected sex have not resulted in a pregnancy.

Language and race/ethnicity. The significant difference in willingness to have unprotected intercourse between Latinos who responded to the survey in English versus Spanish is surprising. We expected that Latinos who responded to the survey in English, who are unlikely to be recent immigrants and therefore more acculturated to the United States, would more closely resemble non-Latino whites than mostly-Spanish-speaking Latinos regarding a willingness to have unprotected sex. Yet this is not what we found. One possible explanation may be social desirability bias. Predominantly Spanish-speaking Latinos may be sensitive to stereotypes about high fertility among new immigrants and therefore less willing to admit intention to have unprotected intercourse.

Compared to non-Latino whites, African American respondents' greater willingness to engage in unprotected sex is more in keeping with national patterns of lower contraceptive use[47] and more frequent unintended pregnancy.[48] African Americans' cultural suspicion of contraception, particularly given historic abuses to the reproductive rights of African Americans[49 50 51] may explain the higher willingness to engage in unprotected intercourse. There may also be less emphasis in African American communities about deliberately planning the timing of parenthood, especially when children can serve as such a source of pride or hope,[526] or when "weathering" effects (i.e., the shortening of African Americans' lifespan due to chronic racism and structural violence) may increase the attractiveness of unintended pregnancy.[53] Compared to other racial and ethnic groups, African Americans may feel less agency or interest in controlling exactly when and how they have children.

Future studies should attend to racial and ethnic influences on the psycho-social-sexual processes at work in shaping contraceptive use (or lack thereof), and not just the demographic differences in unintended pregnancy.

Limitations. This study has several limitations. First, we are simply reporting intentions to have or not have unprotected sex, and intentions cannot infallibly predict behavior.[54] However, social desirability indicates that most people are likely to underestimate rather than overestimate their lack of contraceptive use,[55] so we find the widespread willingness to have unprotected intercourse notable.

Second, we are unable to provide the reasons *why* people would engage in unprotected sex—for example, sexual pleasure, infertility fears, or emotional and relational benefits. We suspect that ignorance regarding fecundity and ambivalence around pregnancy are two major explanatory factors, but confirming these explanations is beyond the scope of the data. We would like to see future work on cultural differences in risk taking and attitudes toward contraceptive methods, pregnancy and birth.

Conclusions. A significant proportion of women and men report that they are willing to engage in unprotected sex, even among those seeking family planning services. Our findings challenge the notion that lack of contraceptive use necessarily represents barriers relating to access, expense, or side effects. Nor is unprotected sex a definitive indicator of a heat-of-the-moment lapse of judgment, since respondents reported a deliberate willingness to risk conception far outside of the sexual moment. The dominant behavioral models of contraceptive use need to be expanded to acknowledge the widespread likelihood of occasional unprotected sex, even among people motivated to (usually) use contraceptives. Findings also underscore the need to make contraceptive methods accessible, easy to use and even, as pleasurable as possible. More research into couples' perceptions of the risk of conception from unprotected intercourse and cultural differences in attitudes toward contraceptive use is needed.

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