

Original research article

Similarities and differences in contraceptive use reported by women and men in the National Survey of Family Growth[☆]

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Abstract

Objective: To compare use of contraceptive methods at last heterosexual intercourse among 15–44 year-old women and men at risk of unintended pregnancy in the United States.

Study Design: We employed data from the National Survey of Family Growth 2006–2013. We considered women and men to be at risk of unintended pregnancy if they had intercourse in the last month, regardless of contraceptive use, and if they or their partner had the ability to get pregnant and was not trying to become pregnant. We categorized multiple method use according to the most effective method reported. To explore the contributions of age and relationship status to differences in reporting between women and men, we conducted sensitivity analyses, limiting age to 25–44 years and union status to married and cohabiting.

Results: Distributions of methods used at last intercourse differed for women and men. A positive difference reflects higher reporting among women, while a negative difference reflects higher reporting among men. Percentage-point differences were largest for reported use of no method (–7.6) and female sterilization (+7.4), each $p < .001$. These differences persisted even when the sample was restricted by age and relationship status.

Conclusion: Estimates of men's contraceptive use may be subject to underreporting of their partners' method use, particularly when their female partner is sterilized. Neither older age nor married and cohabiting relationship status accounted for the observed differences. Further research is needed to explore the factors underlying reporting differences between women and men with respect to female sterilization and use of no method.

Implications (50): Characterizing the determinants of contraceptive use among men and the relationship of men's pregnancy intentions, feelings and desires to contraceptive use are important future research goals. To ensure valid results, researchers must be aware of the potential for underreporting of method use among men, particularly with respect to female sterilization.

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1. Introduction

The National Center for Health Statistics (NCHS) regularly issues reports of the contraceptive methods currently used by women in the United States [1]. These reports are based on self-reporting from the National Survey of Family Growth (NSFG), a nationally representative

sample of women and men in the US. NCHS investigators classify the following groups of women at risk for unintended pregnancy: (a) all women who are using contraception in the month of interview; (b) women who are not using any method and who have had heterosexual intercourse in the past 3 months; and (c) women for whom none of the following are true: (a) who are pregnant, postpartum, or trying to get pregnant; (b) who themselves or their partner is nonsurgically sterile; (c) who themselves are surgically sterile for noncontraceptive reasons [2].

Despite recent interest in men's pregnancy intentions [3], there are no equivalent reports of contraceptive use among

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male NSFG respondents at risk of unintended pregnancy. Indeed, the concept of “at risk of unintended pregnancy” is not defined for men by the NCHS. In a recent study, Eeckhaut and Sweeney examined patterns of sterilization use among married and cohabiting contraceptive users aged 25–44 years in the 2006–2010 NSFG [4]. While their primary objective was not to compare distributions of method use by sex, differences in the proportions of women and men reporting use of female sterilization were apparent.

Our aim is to construct at-risk criteria for men and to compare reported method use by women and men at risk for unintended pregnancy at last heterosexual intercourse. This endeavor is an important step toward more in-depth research examining not only women’s but also men’s contraceptive practices. We focus on last intercourse to maximize reporting accuracy and because, for men, neither method use in the past month nor contraceptive calendar data tracking contraceptive use in the 12 months prior to interview are available. Since the NSFG sample is representative of the household populations of 15–44-year-old women and men in the United States, we expect that the distributions of methods should be approximately the same for female and male respondents, provided that they are accurately reporting their and their partners’ actual contraceptive use. We also investigate the potential role of assortative mating (for example, sex differences in number of recent partners and age differentials within partnerships), which could lead to divergent patterns in women’s and men’s reports.

2. Methods

We used data from the two latest rounds of the NSFG: 2006–2010 [5] and 2011–2013 [6]. The criteria NCHS uses to define women as at risk cannot be applied to men because the male questionnaire differs in three respects. First, men are not asked about method of contraception used in the month of interview, so we used a question common to both the male and female questionnaires, asking about method used at last intercourse. Second, men are asked only whether they and their partner are trying to get pregnant, so we considered a joint measure of pregnancy intention for both women and men. Third, it is not possible to identify men or their partners who were surgically sterile for noncontraceptive reasons. We considered women and men to be at risk of unintended pregnancy if they: (a) were using contraception and had their most recent heterosexual intercourse in the past month; (b) were not using contraception and had their most recent heterosexual intercourse in the past month; and (c) none of the following were true: (a) they or their female partner was pregnant; (b) they or their partner was nonsurgically sterile; (c) both they and their partner were trying to get pregnant.

We constructed method use at last intercourse from answers to questions regarding having had last intercourse in the last month combined with reported information about

contraceptive use at last intercourse in the last 3 months. For respondents who reported using multiple methods at last intercourse, we categorized these according to the most effective method during typical use [8], following standard procedure in contraceptive use reports using NSFG data [4,9,10]. The “Other methods” category includes methods unspecified by respondents along with methods with a frequency of fewer than 20 users: diaphragms; female condoms; contraceptive sponges; spermicidal foams/gels/creams; and emergency contraception. “Periodic abstinence” includes all fertility-awareness methods: rhythm by calendar; safe period by temperature; and cervical mucus analysis. In 2006, the “Other methods” category may also include some intrauterine device (IUD) users because, in this year only, IUD was not offered as a specific response category for men.

We examined the proportions of women and men aged 15–44 reporting use of each method, calculated percentage-point differences and tested for statistical significance using chi-squared tests. Assortative mating, either through partner number or partner age differential, may contribute to divergent patterns in women’s and men’s reported contraceptive use. To investigate these possibilities, we conducted several sensitivity analyses, stratifying our sample by respondent age and relationship status. Following Eeckhaut and Sweeney, we first limited our sample to married and cohabiting women and men only. Second, we limited our sample to women and men aged 25–44 only. Third, we applied both restrictions to limit our sample to married and cohabiting women aged 25–44.

The 2006–2010 and 2011–2013 NSFG also include a variable that classifies respondents and their partners as surgically sterilized. This variable is computed from a series of questions asking both women and men directly about their and their partner’s current sterilization status and the reasons for becoming surgically sterilized. Some participants are classified as surgically sterilized, or have a partner who is classified as surgically sterilized, but reported using no method or a different method in response to the separate question about contraceptive use at last intercourse. To assess the difference made by these discordant responses, we reclassified the following respondents as sterilization users: women and men who reported using either no method or a method other than sterilization at last intercourse, but who were classified as surgically sterilized or who had a surgically sterilized partner according to the computed sterilization variable. We compared these results to our original sample. We then repeated this comparison for women and men aged 25–44 who were married or cohabiting.

We conducted all analyses using Stata Version 14.0 (Stata Corp., College Station, TX, USA) and used sampling weights in accordance with NSFG protocols. All results, including distributions of methods used at last intercourse, are weighted to reflect the NSFG sampling design. Our institutions determined that human subjects’ approval was not required for this analysis of secondary, de-identified data.

3. Results

We identified 10,059 women (58.9%) and 7863 men (55.7%) as being at risk for unintended pregnancy. Percentages of women and men reporting use of each method are shown in Table 1. A positive difference reflects higher reporting among women, while a negative difference reflects higher reporting among men. The distributions of methods used are similar for men and women in some respects but very different in others. The largest differences are for percentages using female sterilization (+7.4 percentage points) and no method (−7.6 percentage points). Both differences are highly statistically significant ($p < .001$). Only 0.2% of men stated that they reported using no method because they did not know whether or not their partner was using a method. Reported differences for all other methods are much smaller (less than or equal to 3.2 percentage points).

To assess if reporting differences could be accounted for by couples in shorter term or less formal relationships, we limited the sample to married and cohabiting respondents only. Compared to the original sample, gender differences in reporting persisted for female sterilization (+6.4 percentage points, $p < .001$) and increased for no method (−11.7 percentage points, $p < .001$).

To examine whether the differing method mix among older versus younger age groups may account for reporting difference, we limited the sample to respondents aged 25–44. Compared to the original sample, reporting differentials between women and men increased both for female sterilization (+9.5 percentage points, $p < .001$) and for no method (−10.1 percentage points, $p < .001$).

Applying both age and union status criteria to further restrict the sample to married and cohabiting respondents

aged 25–44, only, we found differences for female sterilization similar to those in the original sample (+7.5, $p < .001$) and a substantial increase for differences in reporting of no method use (−12.8, $p < .001$).

Finally, we reverted to our original sample but reclassified those who reported that they or their partner had been surgically sterilized yet did not report female or male sterilization as the method they used at last intercourse. Compared to the original sample, we found very little change in the percentage-point difference for female sterilization (+6.9, $p < .001$) and a small decrease for no method use (−5.7, $p < .001$). Repeating this analysis but limiting the sample to married and cohabiting women and men aged 25–44, we found a small decrease in the reporting difference for female sterilization (+5.4, $p = .001$) and a small increase in the differential for no method (−8.9, $p < .001$) use compared to the original sample.

4. Conclusions

Differences in reported method use between women and men at risk of unintended pregnancy are marginal for most methods but substantial for female sterilization and for no method. Reported use of female sterilization is higher among women, and reported use of no method is higher among men. Method reporting for female sterilization is likely to be more accurate among women since the woman is the partner who is actually using the method. It is also possible, however, that some respondents may have felt pressure to report method use when no method was being used due to social desirability [11]. Men's higher propensity to report use of no method was not explained by reported uncertainty about partners' method use.

Prior work examining the influence of relationship context on contraceptive use suggests that relationship quality and duration are important factors influencing the decision to use a method [12–14]. One might also expect that knowledge of partner's method use would be more accurate in the context of marital and cohabiting unions compared to less established relationships. In our analyses, however, restricting the sample by union status did not account for the differences we observed between women and men in reported use of both female sterilization and no method. Indeed, the reporting differential for no method use increased.

Additionally, since female sterilization exhibits a positive trend with increasing age [15], we might expect that limiting the sample to higher age groups would increase the reporting differential for female sterilization. We confirmed this expectation, and note that the differential for no method use also increased compared to the original sample.

Our results imply that some men are unaware that their partners are using a method, particularly when this method is female sterilization. Alternatively, some men may not include sterilization under the definition of what

Table 1
Percentages Reporting Using the Most Effective Contraceptive Method at Last Intercourse for Women and Men Aged 15–44 Years

Method	Unweighted, <i>N</i>		Weighted percentage		Difference	p-value
	Women	Men	Women	Men		
Female sterilization	1764	799	18.97	11.58	7.39	<0.001
Vasectomy	713	406	9.54	7.04	2.50	<0.001
IUD	692	308	7.1	4.86	2.24	<0.001
Injectable	406	216	3.12	2.11	1.01	0.001
Periodic abstinence	107	17	0.94	0.21	0.73	<0.001
Withdrawal	776	527	6.99	6.47	0.52	0.364
Implant	82	52	0.64	0.59	0.05	0.742
Patch	81	89	0.6	0.85	−0.25	0.212
Other method	54	68	0.45	0.74	−0.29	0.036
Ring	201	176	1.81	2.27	−0.46	0.207
Pill	2099	2030	21.86	24.52	−2.66	0.005
Condom	1926	1915	17.24	20.43	−3.19	<0.001
No method [†]	1158	1260	10.76	18.33	−7.57	<0.001
Total	10,059	7863	100	100		

[†] Includes 20 men (0.17% of total) who reported using no method but who did not know if their partner used a method.

they consider contraceptive methods. However, when we reclassify women and men who reported that they or partner had been sterilized despite having not reported use of sterilization at last sex, we find that the differences in reported use of female sterilization and no method are reduced only slightly. This finding suggests that respondent's definition of what constitutes contraception is a minor contributing factor.

Another possibility is that not all men understand that the question they are being asked is about contraceptive use by either themselves or by their partner. However, an experiment on the effect of question format in the 2002 NSFG on reporting by men (asking about use separately for men and their partners vs. a combined question) found that reports of any method use, condoms and pills were stable across formats, suggesting no issues with men's understanding the questions [16].

Patterns of assortative mating may also be contributing to the reporting differences we observe. One can construct scenarios in which the distribution of methods used at last intercourse would not be the same for women and men. For example let φ_1 use no method and φ_2 use female sterilization. Two men σ_1 and σ_2 never use condoms or withdrawal and neither has a vasectomy. Then the method mix for women will be 50% no method and 50% sterilization regardless of whether they last had sex with σ_1 or σ_2 . But the method mix for men would be 50% no method and 50% sterilization only if each man last had sex with a different woman; it would be 100% no method if both last had sex with φ_1 or 100% sterilization if both last had sex with φ_2 . However, this kind of scenario seems an implausible explanation for the magnitude of the differences in results we find for women and men with respect to female sterilization and no method in our sample. Moreover, when we restrict the analyses to married and cohabiting women and men, who are plausibly less likely to have multiple partners, we find that the reporting differences persist.

Characterizing the determinants of contraceptive use among men, as well as elucidating the relationship between men's perceptions of pregnancy and their own and their partners' contraceptive use are important future research goals. Researchers studying these topics should experience few serious problems with differential reporting between women and men for most methods. However, likely underreporting of female partners' use of sterilization and over-reporting of no method use among men are important exceptions. Further research is needed to investigate in detail the potential explanations for differences in reporting among men and to identify ways to address potential reporting bias.

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