Unplanned or unwanted? A randomized study of national estimates of pregnancy intentions

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Objective: To evaluate the effect of question wording on national estimates of pregnancy intentions.
Design: Data drawn from a national probability survey.
Setting: The FECOND study in France in 2010.
Patient(s): Five thousand two hundred and seventy-two women and 3,373 men who reported 11,603 pregnancies.
Intervention(s): Participants randomly assigned to answer 1 of 2 questions on whether they had planned or wanted each of their pregnancies.
Main Outcomes Measure(s): Generalized estimated equation regression models used to test for differences in pregnancy intentions by question wording.
Result(s): The use of different wording yielded a 6% point difference in estimates: 33.5% pregnancies were "unplanned," and 27.4% were "unwanted." The addition of information on reasons for not using contraception at the time of conception lead to significant recoding, which resulted in a significant reduction in the wording effect: 23.7% (95% CI 22.4–25.0) of pregnancies were unplanned, and 21.2% (95% CI 19.9–22.5) were unwanted. Results from the multivariate analysis confirm the greater chance of reporting an unplanned as compared with an unwanted pregnancy (relative risk 1.25 [95% CI 1.17–1.33]), even after recoding (relative risk 1.15 [95% CI 1.06–1.24]).
Conclusion(s): This study shows the strong effect of question wording on estimates of pregnancy intentions. The results also support the value of adding information on reasons for nonuse of contraception when assessing pregnancy intentions. (Fertil Steril® 2014;102: 1663–70. ©2014 by American Society for Reproductive Medicine.)
Key Words: France, randomized study, survey instrument, unintended pregnancy

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Accurate measures of unintended pregnancy are essential in estimating unmet or poorly met need for contraception and evaluating family planning policies and programs. The diversity of terminology used to assess intentions has raised concern over the robustness of pregnancy intention measurements over time and across populations. Indeed, the use of different formulations extends far beyond words, reflecting different constructs of intentions based on attitudinal measures (such as pregnancy wantedness) or behavioral measures (such as pregnancy planning). Based on data from the National Survey of Family Growth in the United States, Santelli et al. (1) uncovered the multifaceted construct of the conventional dichotomous measure of pregnancy intentions, comprising two complementary dimensions—desire and timing—both independently predictive of pregnancy outcomes. In this line of research, a substantial body of work has drawn attention to the complexity of pregnancy intentions, which are sometimes ambivalent or undetermined (2–4), with time varying depending on life circumstances and relationship context (1, 2).

In France, analysis of repeated national fertility surveys reveals that widespread use of very effective

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methods of contraception has resulted in a sharp decline in the proportion of pregnancies classified as unwanted between the 1970s and the mid-1990s (5). This trend seems to have halted thereafter (5). However, the wording of the question related to pregnancy intentions changed between 1994 and 2000 (the 1994 national survey asked about pregnancy wantedness whereas the 2000 national survey (using the same methodology) asked about pregnancy planning), rendering the comparison problematic.

As noted by several investigators, wantedness and planning relate to distinct dimensions of desires versus behaviors (1, 3). To assess the wording effect as well as provide the means to study short-term and long-term trends in pregnancy intentions in France, a randomization of question wording of pregnancy intentions, using either the 1994 or the 2000 wording (wanted versus planned/foreseen) was introduced in the latest survey conducted in 2010. Because the randomization of questions was nested in a national survey, this analysis, which specifically focuses on the "wording effect," offers a unique opportunity to investigate the effects of question wording on national estimates of pregnancy intentions in France. The study also adds to the growing body of literature on the topic, as it includes not only women, but also men, who responded to the same set of questions.

MATERIALS AND METHODS

Data are drawn from the FECOND Study, a population-based survey on contraceptive practices and pregnancy intentions conducted in France in 2010. Participants were included following a two-stage random probability sampling method. The initial sample of households was drawn from random digit dialing (including landline and cell phones) and one individual per phone number was randomly selected for participation. Women were oversampled to achieve the desired sample size. The final sample consisted of 5,272 women and 3,373 men aged 15–49 years, who gave oral consent to participate in the study (as required by the French law). Women were oversampled to study specific reproductive health topics (contraceptive failure rates and infertility treatments) that are relatively rare in the general population. The overall refusal rate was 20%. A more detailed description of the study is published elsewhere (6). The FECOND survey received the approval of the relevant French government oversight agency (Commission nationale de l'informatique et des libertés/National Commission on Informatics and Freedoms, CNIL). This study was also approved by the Johns Hopkins institutional review board.

After giving oral consent, participants answered a telephone interview (lasting on average 41 minutes), which collected information on a wide range of domains including sociodemographic characteristics and topics related to sexual and reproductive health. In particular, respondents were asked to describe their reproductive history by providing detailed information on each of their pregnancies including the outcome (live births, elective abortions, miscarriages, ectopic pregnancies, therapeutic abortions, and stillbirths), the ending date, pregnancy duration, their relationship with their partner at the time of conception (stable, unstable, starting, or breaking up) and their financial situation at the time of the conception (no problems or difficult). A total of 4,785 individuals reported 11,613 pregnancies. Study participants were randomized into two groups: group A comprised 2,458 respondents who answered questions on pregnancy planning, and group B comprised 2,327 individuals who answered questions on pregnancy wantedness (see the description of pregnancy intentions later in this article). Group A reported 5,910 pregnancies, and group B reported 5,703 pregnancies. From these 11,613 pregnancies, 10 were excluded for missing information on pregnancy intentions (six pregnancies described by four individuals in group A, and four pregnancies belonging to one individual in group B). The final sample includes 11,603 pregnancies (5,904 in group A and 5,699 in group B).

Pregnancy Intentions

Our outcome variable was pregnancy intentions assessed using different question wordings. Respondents were randomly assigned to one of two different sets of questions assessing their own and their partner's pregnancy intentions for each pregnancy. The first group was asked, "Had you planned this pregnancy?" and "Had your partner planned this pregnancy?" The translation of the exact wording of the French question (Aviez vous prévu cette grossesse?) lies between the terms "foreseen" and "planned." For the sake of simplicity, we will refer to the term "pregnancy planning" in the rest of the article. The second group was asked, "Had you wanted this pregnancy?" and "Had your partner wanted this pregnancy?" The translation of the exact wording of the French question (Souhaitiez vous cette grossesse?) lies between the terms "wished for" and "wanted." Again, for the sake of simplicity, we will refer to the term "pregnancy wantedness" in the rest of the article. The five response options—"Didn't think about it," "Not at all," "Later," "Sooner," and "At that time"—were the same for both questions (Table 1). We defined a five-item response indicator of pregnancy intentions and a dichotomous indicator, combining the response items "sooner" or "at that time" in the category "planned/wanted pregnancies," and the three response items "not at all planned/wanted," "planned/wanted later" or "I hadn't thought about it" in the "unwanted/unplanned pregnancies" category.

For each pregnancy, respondents were asked about their use of contraception in the month of conception and the reasons for nonuse. Specifically, respondents were asked if they were doing anything to avoid a pregnancy in the month the pregnancy started, and if so what method they were using (15 different options were available, including natural and barrier methods) and the reasons why they thought the pregnancy occurred. For those who stated they were not using any form of contraception in the month of conception, a follow-up question was asked about the reasons for nonusage. Response items included "You wanted a child," "You thought you were not at risk of pregnancy," "You did not expect to have sexual intercourse," "You had never used contraception before," "You had no method off hand," "You thought your partner was using protection," or "Other reasons." This information allowed further exploration of pregnancy intentions in connection with contraceptive behaviors. We constructed two

TABLE 1

Respondent's pregnancy intentions by question wording.

	Female respondents					Male respondents					All respondents				
	Planning scale		Wanting scale			Planning scale		Wanting scale			Planning scale		Wanting scale		
Data collected	**n**	**%**	**n**	**%**	***P* value**	**n**	**%**	**n**	**%**	***P* value**	**n**	**%**	**n**	**%**	***P* value**
Initial indicator of pregnancy intentions															
Didn't think about it	217	5.3	337	8.5	<.001	164	9.4	156	9.2	<.001	381	7.0	493	8.8	<.001
Not at all	808	21.5	382	10.5		336	18.9	159	8.9		1,144	20.5	541	9.8	
Later	268	6.3	363	9.8		104	5.6	133	7.5		372	6.0	496	8.8	
Sooner	391	9.0	250	5.7		139	8.0	75	4.0		530	8.6	325	5.0	
At that time	2,452	57.9	2,655	65.6		1,025	58.0	1,189	70.4		3,477	57.9	3,844	67.7	
Unplanned/Unwanted (= not at all, later, didn't think about it)		33.1 (31.5–34.8)		28.8 (27.1–30.4)	.003		34.0 (31.5–36.5)		25.6 (23.2–28.1)	<.001		33.5 (32.1–34.9)		27.4 (26.0–28.8)	<.001
Recoded indicator of pregnancy intentions (incorporating contraceptive information)															
Didn't think about it	68	1.6	181	4.5	<.001	52	3.0	86	5.1	<.001	120	2.2	267	4.8	<.001
Not at all	726	19.2	371	10.2		299	16.7	159	8.9		1,025	18.2	530	9.6	
Later	135	3.4	292	7.9		53	3.0	101	5.4		188	3.3	393	6.8	
Sooner	391	9.0	250	5.6		139	8.0	75	4.0		530	8.6	325	5.0	
At that time	2,816	66.7	2,893	71.8		1225	69.3	1,291	76.6		4,041	67.7	4,184	73.8	
Unplanned/Unwanted (= not at all, later, didn't think about it)		24.3 (22.8–25.9)		22.5 (21.0–24.1)	.11		22.7 (20.5–25.0)		25.6 (23.2–28.1)	.04		23.6 (22.4–25.0)		21.2 (20.0–22.5)	.009

Note: Data presented as n, %, and % (95% CI). All percentages are weighted to account for the complex survey design.

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revised indicators of pregnancy intentions by reclassifying all pregnancies as "wanted/planned at that time" (five-category indicator) or "wanted/planned" (dichotomous indicator) if the respondents reported they had not used contraception at the time of conception because they "wanted a child," regardless of their initial response to the pregnancy wantedness or planning question.

Additional information on pregnancy intentions was collected in the case of live births by asking "How happy were you when you found out about the pregnancy (even if you changed your mind later)?" The score ranged from 1 to 10, with 1 indicating the respondent was not at all happy and 10 indicating the respondent was very happy. This question was not available for other pregnancy outcomes.

Finally, we used the combination of the respondent's intentions and their partner's intentions (as reported by the participant) to define an indicator of the couple's pregnancy intentions using a four categorical indicator: "both partners planned or wanted the pregnancy," "the respondent wanted or planned the pregnancy but the partner did not," "the partner wanted or planned the pregnancy but the respondent did not," or "neither partner planned or wanted the pregnancy." We constructed the couple's intention indicator based on both the initial and revised measure of pregnancy intentions.

Analysis

We first compared the respondents' sociodemographic and pregnancy characteristics to identify any differences by randomized group. We then compared the distribution of pregnancy intentions by question wording using the 5-point scale and the dichotomous indicator for women and men separately, as the effect of question wording was greater for men than women (test of interaction, $P=.05$). We pursued the analysis by considering the effect of question wording after controlling for a set of individual level factors (which are considered to be relatively constant over time) and pregnancy or contextual factors associated with pregnancy intentions. The models included the respondent's sociodemographic characteristics (sex, age at the time of the pregnancy, and level of education), pregnancy characteristics (year of pregnancy, pregnancy order, and pregnancy outcome), and the financial and relationship situation at the time of conception.

We also tested for differences in the effect of these factors on pregnancy intentions according to question wording and found that pregnancy outcome was the only significant interaction. We used the same strategy to identify possible differences in the factors associated with pregnancy intentions according to sex and found no significant interaction. We used a generalized estimated equation regression model (using the xtgee command in the STATA software; StataCorp) to account for the correlation between pregnancies reported by the same participant (the mean number of pregnancies per respondent was 2.5 with a range varying from 1 to 15). Because our outcome (unintended pregnancy) was frequent, we used a Poisson regression to estimate relative risks (instead of odds ratios).

We present the results of the multivariable analysis for all pregnancies combined (regardless of outcome and sex of respondents) and among pregnancies ending in live births. Stratification by pregnancy outcomes allows examining the robustness of our conclusions, despite underreporting of abortions (as births are less likely to be underreported). It also addresses some of the concerns associated with postrationalization of pregnancy intentions after live births (births that were initially unintended may have become intended once the child was born), as postrationalization is less likely to occur for other pregnancy outcomes.

All analyses are performed using weighted observations to account for the complex survey design. Respondents were assigned a sampling weight, inversely proportional to the probability of being selected in the sample. Poststratification adjustments were also applied to reflect the sociodemographic composition of the general population in France based on census data. All analyses were performed using STATA 11.0 software package (StataCorp).

RESULTS

The description of respondents by randomization group is provided in Table 2. We found no difference in sociodemographic characteristics or pregnancy characteristics between the two groups. In particular, there was no difference in the distribution of pregnancy outcome by question wording ($P=.33$).

The comparison of the dichotomous measure of pregnancy intentions by question wording yielded an overall 6 percentage point difference (95% CI): 33.5% (32.1–34.9) of all pregnancies were unplanned, and 27.3% (26.0–28.8) were unwanted ($P<.001$). A more detailed comparison of the two indicators using 5-item scales indicates the greatest variation was seen in pregnancies that were "not at all wanted" versus "not at all planned," with a 12 percentage point difference among women and a 10 percentage point difference among men (see Table 1).

The addition of information on contraceptive use and reasons for nonuse of contraception indicate that on the reasons for not using contraception at the time of conception resulted in significant reclassification: 563 (30%) of 1,894 "unplanned" pregnancies were reclassified as "planned" because the respondents reported not using contraception because they "wanted a child." The extent of reclassification varied by response option (see Table 1): 10% of pregnancies initially reported as "not at all planned," 49% of those that were "planned later," and 68% of those for which the respondents indicated they "had not thought about it" were reclassified. Likewise, the amount of reclassification largely depended on pregnancy outcome, ranging from 3% of pregnancies ending in elective abortion to 44% of those ending in live births (data not shown).

Using the same criteria, 339 (22%) of 1,527 "unwanted" pregnancies were reclassified as "wanted." Reclassification by response items ranged from 2% of pregnancies that were "not at all wanted" to 45% of those for which the respondents indicated they "had not thought about it" (see Table 1). Only 3% of pregnancies ending in abortion were reclassified as "wanted" as opposed to 37% of live births (data not shown). The difference between the initial and revised indicator of

TABLE 2

Characteristics of respondents by randomization group.

	Pregnancy planning scale (N = 2,454)		Pregnancy wantedness scale (N = 2,326)		
Characteristic	**n**	**%**	**n**	**%**	***P* value**
Mean age		38 (37.7–38.4)		38.3 (38.0–38.7)	.21
Sex					
Women	1,665	56.2	1,581	55.4	.68
Men	789	43.8	745	45.6	
Current partner	2,148	88.9	2,023	87.8	.26
Marital status					
Married	1,324	54.4	1,233	54.7	.94
Civil union	132	4.7	115	4.6	
Single	743	31.1	739	31.6	
Divorced	227	8.7	222	8.3	
Other	24	1.1	13	0.8	
Country of birth					
France	2,226	86.7	2,126	85.4	.58
Foreign country	218	13.3	199	14.6	
Highest diploma					
<High school	886	49.2	909	52.3	.08
High school	522	19.3	445	17.0	
> High school	1,034	31.5	965	30.7	
Professional situation					
Employed	2,030	81.8	1,946	83.5	.06
Student	59	2.6	49	1.9	
Unemployed	208	9.2	175	7.3	
Other	157	6.4	156	7.3	
Mean no. of reported pregnancies		2.1 (2.0–2.1)	2,326	2.1 (2.0–2.1)	.65
Pregnancy outcomes					
Live birth	1,814	73.3	1,693	73.3	.45
Elective abortion	306	13.2	326	14.5	
Miscarriage	281	11.3	267	10.6	
Ectopic pregnancy	23	1.0	17	0.7	
Therapeutic abortion	13	0.4	13	0.5	
Stillbirth	17	0.8	10	0.4	

Note: Data presented as n, %, and % (95% CI). All percentages are weighted to account for the complex survey design.

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unplanned versus unwanted pregnancy was substantially reduced: 23.6% (22.4–25.0) of pregnancies were unplanned, and 21.2% (19.9–22.5) were unwanted ($P=.01$). The difference was no longer statistically significant among women ($P=.11$) but remained statistically significant among men ($P=.04$). Very few planned or wanted pregnancies were described as a result of contraceptive failure (1.1%) or started in a month when women were using contraception and did not report stopping their method (1.0%).

We examined the difference in mean "happiness score" by pregnancy intentions using the initial and revised measures (data not shown). This analysis was restricted to live births as the happiness scale was not available for other pregnancy outcomes. Differences in mean happiness scores between planned and unplanned births was greater using the revised indicator (9.7 [95% CI 9.6–9.7] vs. 7.0 [95% CI 6.7–7.3]; $P<.001$) than the initial indicator (9.7 [9.7–9.8] vs. 8.0 [7.8–8.2]; $P<.001$). Likewise, the revised wantedness measure yielded a greater difference in mean happiness scores (9.6 [95% CI 9.6–9.7] vs. 6.4 [95% CI 6.1–6.7]; $P<.001$) than the initial measure (9.7 [95% CI 9.6–9.7] vs. 7.3 [95% CI 7.1–7.6]; $P<.001$).

Turning to the partner's pregnancy intentions (as reported by the respondent), the results indicate a higher proportion of unplanned compared with unwanted pregnancies (34.2% [95% CI 32.8–35.6] vs. 26.8% [95% CI 25.4–28.2]; $P<.001$) (data not shown). The combination of the respondent and the partner's intentions (couple dyad intentions) produced similar results: 31% of pregnancies were classified as unplanned, and 23% as unwanted by both partners. The difference by question wording was greater among male respondents (Table 3).

In general, women were more likely to report unwanted pregnancies than men ($P=.03$) whereas estimates of unplanned pregnancies were similar for both sexes ($P=.57$) (see Table 1). The same was true after reclassification (see Table 1). In the multivariate context however, sex was no longer statistically significant: women and men were similar in their reporting of unplanned pregnancies (odds ratio 1.06 [0.96–1.17]; $P=.23$) or unwanted pregnancies (odds ratio 0.98 [0.82–1.18]; $P=.84$) (data no shown).

Results from the multivariable analysis among all pregnancies (regardless of outcome and sex of the respondents) confirm the greater risk of reporting a pregnancy as unplanned compared with unwanted (relative risk 1.25 [95% CI 1.17–1.33]; $P<.001$). The effect, although reduced, remained statistically significant after reclassification (relative risk 1.15 [95% CI 1.06–1.24]; $P=.001$) (Table 4). The same associations were found when restricting the analysis to live births (see Table 4),

TABLE 3

Couple's pregnancy intentions by question wording.

Couple intentions	Female respondents					Male respondents					All respondents				
	Planning scale		Wantedness scale			Planning scale		Wantedness scale			Planning scale		Wantedness scale		
	n	%	n	%	*P* value	n	%	n	%	*P* value	n	%	n	%	*P* value
Partner concordance															
Planned/wanted by both partners	2,683	62.8	2,683	66.1	<.001	1,130	64.8	1,229	73	<.001	3,813	63.6	3,912	69	<.001
Unplanned/unwanted by both partners	1,231	31.6	951	25.4		531	30.1	339	19.6		1,762	31	129	22.9	
Partner discordance															
Planned/wanted by respondent only	158	4.2	201	5.2		34	1.8	34	2.1		192	3.2	235	3.9	
Planned/wanted by partner only	56	1.4	118	3.3		60	3.3	93	5.3		116	2.2	211	4.1	

Note: Percentages are weighted to account for the complex survey design.

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or when excluding live births (relative risk 1.11 [1.04–1.18]; $P=.02$).

DISCUSSION

This study suggests strong effects of question wording on national estimates of pregnancy intentions in France, consistent by sex and pregnancy characteristics. The largest difference was found among pregnancies that were reported as "not wanted at all" versus "not planned at all," as opposed to pregnancies that were mistimed. Additional information on the reasons for nonuse of contraception at the time of conception also provides insights on the disconnection between contraceptive behaviors and pregnancy intentions, which may partly reflect misinterpretation of survey questions.

We are well aware of the limitations of using retrospective measures of fertility intentions in this study. As in most population-based studies (7–9), abortions are underreported in the FECOND study, with half estimated to be missing, when compared to national abortion rates (10). Abortion underreporting substantially affects overall estimates of unintended pregnancy rates, but we found no evidence of differential reporting of abortion by question wording of pregnancy intentions. This limits the potential bias of underreporting on question wording effects. Furthermore, our results remained unchanged when restricting the analysis to live births. Another shortcoming of retrospective reports of fertility intentions pertains to postrationalization of intentions related to live births (i.e., the change in pregnancy intention from unintended to intended once the child is born) (11, 12). However postrationalization is less likely to occur for other pregnancy outcomes, which we also found to be more frequently reported as unplanned compared with unwanted.

Underreporting of abortions and postrationalization of birth intentions result in underestimated unintended pregnancy rates, but our study suggests that the use of a single question assessing pregnancy intentions may conversely lead to substantial overestimation of unplanned/unwanted fertility. In contrast with prior research based on the National Survey of Family Growth in the United States (13), very few planned/wanted pregnancies resulted from contraceptive failure. In contrast, a substantial proportion of unwanted/unplanned pregnancies occurred after stopping contraception because the respondents "wanted a child." This reclassification may signal a social desirability bias, although reclassification was consistent with the strength of the intentions (far less likely in case of pregnancies that were not at all planned compared with planned "later" or "didn't think about it"). Likewise, unintended pregnancies reclassified as intended had a higher mean score on the happiness scale than unintended pregnancies that were not reclassified.

The added contraceptive information also reveals distinctive dimensions of pregnancy intentions (partly captured in the wording of the question), contributing to the growing body of evidence on the multiple facets of pregnancy intentions (3, 14). Reclassification was significantly higher for unplanned pregnancies compared with unwanted pregnancies, suggesting a more temporal dimension of the "planning" scale that is not

TABLE 4

Effect of question wording on pregnancy intentions among all pregnancies and among live births, controlling for sociodemographic and pregnancy characteristics: results of multivariable generalized equation model using a Poisson distribution.

	Unplanned or unwanted pregnancies						Unplanned or unwanted live births					
Data collected	RR	CI	*P* value	Adj RR	95% CI	*P* value	RR	CI	*P* value	Adj. RR	95% CI	*P* value
Initial indicator												
Unwanted	1		<.001	1		<.001	1		<.001	1		<.001
Unplanned	1.23	1.13–1.33		1.25	1.17–1.33		1.37	1.23–1.55		1.40	1.26–1.56	
Revised indicator												
Unwanted	1		.04	1		.001	1		.012	1		<.001
Unplanned	1.1	1.00–1.22		1.15	1.06–1.24		1.22	1.04–1.43		1.24	1.07–1.43	

Note: Adj. RR: relative risk adjusted for sex, highest diploma, pregnancy order, year of pregnancy, age of women at conception, financial and relationship situation at the time of conception, and pregnancy outcome (for the model including all pregnancies).

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fully captured by the response option "planned later." Respondents who had not anticipated the exact date of the pregnancy may have considered they had not planned the pregnancy at that particular time. Moreover, a thorough examination of the reclassification process by response option indicates that a greater proportion of pregnancies with unspecified intentions ("I didn't think about it") or mistimed pregnancies ("planned/wanted later") were reclassified as "planned/wanted" as opposed to pregnancies with less equivocal intentions (planned or wanted "sooner," "at that time," or "not at all"). These findings corroborate prior research indicating greater inconsistency in use of contraception among women with ambiguous pregnancy intentions (2–15).

Although social desirability may partly explain the high proportion of contraceptive nonusers who reported not using contraception because they "wanted a child," we believe social desirability is more likely to be reflected in the initial questions on "pregnancy intention" (postrationalization of birth intentions) or on contraceptive usage. The inverse relation between the strength of initial intentions and the degree of reclassification and the greater correlation between the happiness score and the recoded measure of pregnancy intentions adds value to the exploration of the reasons for not using contraception in future studies of pregnancy intentions. Indeed, our results indicate greater differences in the mean happiness scores by pregnancy intentions after reclassification. Future research should also assess the value of adding this information to identify a more specific category of unplanned or unwanted pregnancy predictive of women's and children's health outcomes.

In our study, partner intentions (as designated by the respondents) followed the same pattern of reporting as the respondents' intentions, with greater odds of reporting an unplanned as opposed to an unwanted pregnancy. Partners' intentions (as perceived by the respondents) were highly correlated with respondents' intentions and thus were not included in the multivariable analysis. Their inclusion did not modify the effect of question wording on estimates of unintended pregnancies. Although the study of the determinants of pregnancy intentions was beyond the scope of this study, we found no difference of effects of question wording by sociodemographic characteristics or pregnancy characteristics (with the exception of pregnancy outcome). In particular, the difference in the effect of wording between men and women observed in the univariate analysis was no longer significant in the multivariate context. Likewise, men were no less likely to report an unintended pregnancy compared with women after controlling for sociodemographic and contextual factors.

CONCLUSIONS

As demonstrated in earlier work questioning the ability of standard research instruments to fully capture the complex decision making process informing reproductive behaviors (16), this study illustrates the complex nature of fertility decisions by revealing the high sensitivity of pregnancy intention estimates to question wording for women and men alike. Our results support the value of including additional information on contraceptive behaviors at the time of conception, which substantially reduces the differences in estimates of pregnancy intentions by survey instrument. Nevertheless, pregnancy planning and pregnancy wantedness reflect distinct dimensions, which need to be considered when comparing population estimates of fertility intentions over time and across populations.

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