Reviewer's report

Title: Women's attitudes towards mechanisms of action of family planning methods: survey in primary health centres.

Version: 2 Date: 8 March 2007

Reviewer: Melanie Gold

Reviewer's report:

General

1. Is the question posed by the authors new and well defined? The question itself is not new but it is asked of a new population and it is well defined.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work? In order to adequately review this article, I had to get the questionnaire that was provided as a supporting document translated by a bilingual physician colleague of mine from Spanish to English. There is insufficient detail in the manuscript on the wording of some of the key questions in the questionnaire (which is written in English for an English-speaking readership) - see my detailed comments later.

3. Are the data sound and well controlled? They are sound. The issue of control is not applicable to this survey study.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? Yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data? No. The discussion is not completely balanced and represents some biases in interpretation that should be addressed (see more details below).

6. Do the title and abstract accurately convey what has been found? The title is clear and appropriately informs the reader that this is a study about women's attitudes about how family planning methods work from primary care centers. However, the title could be improved if it included the phrase "in Pamplona, Spain" to read as "Women's attitudes towards mechanisms of action of family planning methods: survey in primary health centres in Pamplona, Spain". The abstract is misleading in several areas. First, in the methods, the authors say "Logistic regression was used to identify variables associated to women's concerns about postfertilization effects." This should be changed to "Logistic regression was used to identify variables associated with women's beliefs about postfertilization effects."

7. Is the writing acceptable? Yes. It is written in clear English

Detailed comments for authors

Title: Please add "in Pamplona, Spain" to read as "Women's attitudes towards mechanisms of action of family planning methods: survey in primary health centres in Pamplona, Spain."

Abstract:

1. Participants completed a 30-item, self-administered, anonymous questionnaire about family planning and about medical and surgical abortion. This should be clarified in the abstract and the text.

2. Under "Methods", the authors say "Logistic regression was used to identify variables associated to women's concerns about postfertilization effects." This should be changed to "Logistic regression was used to identify variables associated with women's beliefs about postfertilization effects."
3. Under “Results”, this should be revised to reflect that it is important to identify beliefs (not concerns) about postfertilization effects associated with religiosity and with beliefs about interrupted fertilized ovums and embryos.

4. Under “Conclusions,” this should be revised to reflect that it is women’s beliefs (not necessarily their concerns) about the potential postfertilization effects of family planning methods and medical and surgical abortion that are important. And that additional studies in other populations are needed to evaluate whether these beliefs are important to those populations (not concerns).

Manuscript

Page 5, under Methods, para 1, line 1, the authors state the participants were “a sample of 725 fertile women”. How did they know they were fertile? Was prior pregnancy an inclusion criteria to participate? Or did they just exclude those who stated they were medically or surgically sterile? Please clarify.

Page 5, para 1, Did the health care centers have any particular religious affiliation? If so, please mention this or the lack of affiliation in the manuscript.

Page 5, para 2, please clarify what the reading level was for the questionnaire. Can the authors provide more information regarding how well subjects understood the staging terminology (either based on their pilot testing or this survey study)? Will the authors make this survey available upon request in English via this journal?

Page 5, para 3, it would be helpful to provide the exact definitions from the survey for stages 1, 2 and 3 (in English) so readers can see how this was worded. I asked a bilingual colleague of mine to translate the survey so I could review the exact terminology used. This is particularly important because the questionnaire describes stage 3 as “G: After implantation of the embryo in the uterus. This is Stage 3. The methods that work during this stage destroy the implanted embryo.” The language used is not neutral. The word “destroy” has a negative connotation.

Page 6, para 1, line 2-3, the authors say they will make the questionnaire available in Spanish but they should also make the translation of the questionnaire available in English.

Page 6, paragraph 2: The authors state “the questionnaire was distributed” to subjects. What was the gender and background of the people passing out the questionnaire? Where were the doctors, nurses, research assistants?

Page 6, para 2, were participants provided any incentives for completing the questionnaire? How did the investigators ensure, since this was an anonymous questionnaire, that participants did not complete the questionnaire more than once (say at a subsequent visit to the health care center)?

Page 6, para 3, line 3, here and throughout the entire manuscript the authors refer to “concerns about postfertilization effect” but none of the questionnaire items ask about concerns. These are “beliefs about postfertilization effect” NOT concerns and this should be corrected throughout the manuscript because it is misleading that the women have concerns. Likewise, I think the authors should give examples, in English, of how these key items were phrased so the reader can decide for him/herself how to interpret the meaning of the participant’s responses. A table should be provided listing the specific wording of these key questionnaire items.

Page 6, para 4, line 3, change the word “concerns” to “beliefs”

Page 7, under results, line 2, please define how “potential fertility” was assessed for inclusion criteria.

Page 7, para 2 under results, what % of the participants had high religiosity? This needs to be in the text since it is not provided in the table (and religiosity was a combination of both attendance at religious service AND rating of how important of an influence faith was.

On page 7, in the last paragraph starting "Approximately half of the participants...,” I wonder how well the participant’s understood what the investigators meant by question 8 when they asked them to distinguish between natural embryo losses or those induced losses from a contraceptive method. My translator translating survey item 8 into English for me as follows:
8. In some cases, the fertilized ovum or the embryo is lost due to natural causes during stage 2 or 3. Despite this, this loss can be caused by some contraceptive methods.

Is there an important difference for you if loss of the embryo is natural or if it is caused by a contraceptive method?

Please select an answer:

() Yes
() No
() Not sure

The use of the term “lost” or loss” (the yellow highlight is my own not the investigators) insinuates a bias since the term usually implies a negative event. Even the term “natural” versus “caused by a contraceptive method” implies that natural is “normal or good” and contraceptive induced is “not natural or bad”. It might have been better for the investigators to phrase this item instead as “sometimes a fertilized ovum or an embryo does not continue to grow for a variety of reasons. Sometimes this happens on its own and sometimes medication, like a contraceptive method, may cause this to happen”. In their discussion, the investigators need to address this issue.

Also, it is not clear to me for question 8 in the questionnaire what “the important difference” means between “losses that are natural and those caused by a contraceptive.”. Does this mean it is good or bad? Acceptable or unacceptable? Consistent with their beliefs or not? The phrasing of this question can be open to many interpretations. I think the investigators should provide the English translation of this question in the text of the paper and later in the limitation section talk about the fact that this question might have been interpreted in different ways, and then present their interpretation as one possibility while acknowledging that different interpretations might also explain the way this item was answered.

Page 7, para 3, last line, it is important for the reader to see exactly how the item about distinguishing natural embryo loss from induced losses is worded.

On page 8, paragraph 1 starting "Of all respondents....," please list a percentage for how many women reported it would not matter how often a method works at stage 2 and stage 3. In the manuscript the authors only state "most" but not a percentage. Since this is the results section, a percentage would be useful.

Page 8, para 2, line 1, please change “concerns about postfertilization effects” to “beliefs about postfertilization effects”

On page 9, para 3 starting "We found inconsistent responses....," the authors mention that they excluded the inconsistent women’s results from their analyses. Including analyses from inconsistent women is important because many women may be inconsistent in the real world. Are the results listed in the tables with or without the inconsistent responses?

Page 9, Discussion, para 4, line 1, change “level of concern” to “beliefs”

Under the discussion section: It would be helpful if the authors would address how women should be educated about the mechanism of action of birth control methods in light of the fact that it is often unknown what percentage of the time each method works by each stage.

Page 12, para 1, lines 6-7, the authors state “we did not include any term in the questionnaire that could potentially result in biased responses”. However, the terms “destroy the implanted embryo” and “loss” were used throughout the questionnaire and these terms are neither neutral nor unbiased. See more comments below on the terminology of the questionnaire under Comments on Questionnaire. The authors need to revise this sentence and discuss the potential biases introduced by the use of these words.

Page 12, para 2, line 2, please change “concerns” to “beliefs”
must have:

No 1: ______________________________________________________________________
No 2: ______________________________________________________________________
No 3: ______________________________________________________________________

It might be helpful to include the responses to this question in this paper. I wonder how many of them wrote down knowing how the method worked?

Pages 12-13, is there one item or a cluster of several items that the authors found were most able to predict having beliefs that postfertilization effect of contraceptive methods were unacceptable or contrary to their beliefs? Can the clinician take away from this paper a practical set of question to ask women to help aid them in choosing contraceptive methods that are in keeping with the women’s personal beliefs?

Table 3, change the title and the headers in the table variables to read as “women’s beliefs about the postfertilization effect” not their “concerns”

Please include a table with the wording of the key questions in the questionnaire translated into English. I would suggest items 8 (including the descriptions of the 3 stages preceding the question), 9-15, and 18-19 and perhaps 21.

Comments on the Questionnaire

Question 6 asks participants to “mark all methods of family planning or contraceptives that you and/or your partner have used sometime in your life”. However, the list includes “abortion” and “RU-486 (abortive pill)” which are not classified as “methods of family planning or contraceptives.” Please note in the text of the manuscript that these two variables were listed this way and explain why they were categorized as contraceptive methods.

Prior to question 8, the authors state “First, we will explain the stages of normal human reproduction” and they describe stage 3 as “G: After implantation of the embryo in the uterus. This is Stage 3. The methods that work during this stage destroy the implanted embryo.” The term “destroy the implanted embryo” is a biased term. Please note in the text of the manuscript exactly how this was written in the survey and discuss this as a potential bias in the limitations section.

Question 8 reads “In some cases, the fertilized ovum or the embryo is lost due to natural causes during stage 2 or 3. Despite this, this loss can be caused by some contraceptive methods.

Is there an important difference for you if loss of the embryo is natural or if it is caused by a contraceptive method?

Please select an answer:

() Yes

() No

() Not sure”

The use of the term “lost” or “loss” (the yellow highlight is my own not the investigators) insinuates a bias since the term usually implies a negative event. Even the term “natural” versus “caused by a contraceptive method” implies that natural is “normal or good” and contraceptive induced is “not natural or bad”. It might have been better for the investigators to phrase this item instead as “sometimes a fertilized ovum or an embryo does not continue to grow for a variety of reasons. Sometimes this happens on its own and sometimes medication, like a contraceptive method, may cause this to happen”. In their discussion, the investigators need to address this issue.

Also, it is not clear to me for this question 8 in the survey what “the important difference” means between “losses that are natural and those caused by a contraceptive.”. Does this mean it is good or bad? Acceptable or unacceptable? Consistent with their beliefs or not? The phrasing of this question can be open to many interpretations. I think the investigators should provide the English translation of this question in the text of the paper and later in the limitation, talk about the fact that this question might have been interpreted in different ways, and then present their interpretation as one possibility while acknowledging that different interpretations might also explain the way this item was answered.
Both questions 12 (for stage 2) and 15 (for stage 3) are also biased in that they use the term “loss” for one of the response choices for the question “with what frequency would the method need to work during stage 2 (or stage 3 for question 15) for you to stop using it?”. One of the response choices is worded as “more than once in 100 years (of 100 women that use the method, one would have a loss each year). This bias should be discussed in the limitations section.

Question 18 asks “If you use a contraceptive method that may sometimes act after fertilization but before implantation (stage 2), should your physician explain the details of how does the method work?”. Likewise question 19 asks “If you use a contraceptive method that may sometimes work after implantation (stage 3), should your physician explain the details as to how does the method work?” The authors never ask the same question as to whether physicians should explain about the details of how a method works if it works at stage 1. This should be noted in the discussion since this may also bias the reader of the questionnaire. Do physician only need to explain the mechanism of action of methods that work at stage 2 and 3 but not during stage 1?

Finally, question 20 asks “In which stage do the following family planning methods work? Please, mark all the corresponding boxes to indicate all possible mechanisms of action for each method” and participants are asked to check off boxes corresponding to ‘Stage 1 (before fertilization), Stage 2 (after fertilization, before implantation), Stage 3 (after implantation), or I don’t know.” Abortion and RU-486 are included on the list even though they are not family planning methods. Please note in the text of the manuscript that these two variables were listed in this way and explain why they were categorized as contraceptive methods.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'