Author’s response to reviews

Title: Comparative satisfaction of receiving medical abortion service from nurses and auxiliary nurse-midwives or doctors in Nepal: Results of a randomized trial

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Responses to Reviewers

Reviewer #1: The authors improved the quality of the paper during this first round of review. This review improved mainly the conceptual consistency of the manuscript.

However the current focus on satisfaction requires a proper link of the findings to the overall literature on satisfaction. This motivates the following comments:

1- In the conceptual framework, the authors mentioned "Drawing upon previous studies...". Can you provide some references of those studies and discuss how you chose them among other to develop this conceptual framework?

Response: Thank you for this comment. We did additional literature search for studies on user satisfaction and client perspectives on family planning abortion services and build the conceptual
framework on the review of these studies. We have revised the text on Conceptual Framework, as follows and the references are added to the manuscript:

Ascertaining client or user satisfaction with the method and/or the service has been a key to measuring quality of family planning programs and MA services [9, 10, 11, 12, 13, 14, 15, 16, 17, 18]. More recently, client satisfaction has been shown as the human rights-related outcome for human rights standards in relation to family planning program implementation [19]. Measuring “satisfaction” is, however, neither straightforward nor easy to interpret [20]. “Satisfaction” can be measured subjectively by one or more direct question(s) to respondents or experiences of care through a series of questions such as the waiting time to receive the service; client-provider interaction and communication [20]. Personal characteristics of the provider and recipients of service also play a role in satisfaction reported by the latter. It is challenging, therefore, to develop a conceptual framework that encompasses these varied dimensions and guide the selection of variables and the analysis of factors associated with women’s reported satisfaction of medical abortion service received from doctors or nurse and ANM. In this study, we analyze “satisfaction” with response categories: “highly satisfied”; “satisfied”; “not satisfied”; or “no opinion”. This provides an overall subjective assessment of a woman with no indications of underlying factors. In order to address these factors, we adapted the “proximate determinants” framework developed by John Bongaarts [21] originally to explain the variations in fertility levels across countries. The proximate determinants of reported satisfaction with MA (the ‘outcome’ variable in this study) include women’s experiences of pain, excessive bleeding, side-effects and the time it took to complete the abortion from induction of labor. The coverage and quality of counselling and communication measures included in this study are: information provided on the method prior to taking MA tablets; explanation of signs of complications; opportunity provided to ask questions and whether contraceptive counselling was provided. Women with successful abortion outcome, that too within a short or expected duration; experience of less or as expected amount of bleeding and pain not lasting for more than the duration informed by the health provider during counselling, are hypothesized to express satisfaction with the MA service. Better quality counselling is hypothesized to be associated with higher level of satisfaction with the MA service. Both the outcome and the proximate determinants are influenced by the independent background characteristics of women and providers. The background (independent) characteristics of women include age, marital status, parity, education, occupation, previous induced surgical abortion, and preference for female provider. These may influence women’s satisfaction with MA directly or through the proximate determinants. The providers’ characteristics considered in the analysis include type of provider (doctor or nurse and ANM), age, and years of experience in providing abortion services. The framework (Figure 1) guided the selection of variables and analysis of data.

2 - The conceptual framework should define satisfaction and presents the operational definition adopted for this study.
Response: The definition and measurement of satisfaction is now included in the manuscript as follows:

In this study, we define satisfaction with MA in terms of women’s experiences of pain, the amount and duration of bleeding and side effects associated with MA and through an overall subjective assessment of satisfaction with the procedure.

In addition, all women were asked one direct question on ‘satisfaction’: “how satisfied are you with the method”.

3- There are many controversies and criticisms about the concept of satisfaction. Some authors suggest the concept of "experience of care" rather than satisfaction (See for instance Salisbury C, Wallace M, Montgomery A. Patient experience and satisfaction in primary care: secondary analysis using multilevel modelling. BMJ 2010;341: c5004). The authors do not need to adopt this perception lens in this study. But they need at least to discuss their findings with regards to this point in the literature on satisfaction.

Response: Thank you for the helpful reference and the comment. We have incorporated “experience of care”, personal characteristics of women, and the reported satisfaction in the conceptual framework and analysis of data. The text above in response to point 1 shows the revisions made.

Reviewer #4: Thank you for the opportunity to review this manuscript. It is a useful analysis of differences in MA satisfaction by provider type in Nepal. There are a few important revisions, primarily to the Conceptual Framework and Discussion sections, that should be considered before it is acceptable for publication. These are outlined below.

Abstract

1. Results: It will be helpful to include a brief statement on why some women were excluded from the present analysis, e.g. due to missing data?

Response: Thank for spotting this omission. We have revised the text as follows:

Of 1,295 women screened for eligibility, 535 were randomly assigned to a doctor and 542 to a nurse or ANM. Nineteen women were lost-to-follow up in the former group and 27 were lost-to-follow up or did not complete the acceptability interview in the latter group. This study is, therefore, based on 516 women in the doctor’s group and 515 women in the nurse or ANM group.
Methods

2. Under Study Procedures the authors mention the "acceptability form" two times before it is described in the last paragraph in the section. It would be helpful on p.6 to briefly describe this form as an interviewer-administered questionnaire to measure women's experiences and satisfaction with MA.

Response: Thanks for the helpful suggestion. We have revised the text as follows:

In addition to the clinical assessment, an “Acceptability Form” was administered by the female research assistants to ascertain women’s experiences of symptoms and their satisfaction with MA. Women were asked about their experiences/perceptions regarding pain, amount of bleeding, duration of abortion process, side effects and privacy. For each of these five conditions, women were asked to respond either ‘less than expected’, ‘same as expected’, ‘more than expected’, or ‘no comment’. Questions measuring the coverage and quality of counselling and communication included: (1) “was the method explained clearly to you before taking tablets”; (2) “were the signs of complications explained clearly to you”; (3) “did you receive counselling on contraceptive use”; and (4) “did the provider give you an opportunity to ask questions”. Preferences of sex of the provider and the length of practice were also ascertained. In addition, all women were asked one direct question on ‘satisfaction’: “how satisfied are you with the method”.

3. Conceptual framework

a. The authors mention that the framework was developed drawing on evidence from previous studies, and it would be helpful to add citations of the evidence linking the included factors to the satisfaction outcome. Later in the paper it comes across that expectations are thought to drive satisfaction, but this is not well described in the conceptual framework. Adding the literature here will be helpful.

Response: We have revised the text on Conceptual Framework, shown above in response to Point 1 of Reviewer #1.

b. The authors describe a proximate determinants framework, and it would be helpful to create a simple figure to display the proximate determinants more clearly.

Response: Figure 1 has been added to show the proximate determinant framework more clearly.
c. In the last sentence, the authors mention that preference for a male or female provider was included as a predictor. Since you also have data on the sex of the provider who actually treated the woman, it might be more informative to look at concordance between the preference and the provider she received. It is likely the concordance between preference and the sex of the provider she saw that drives satisfaction rather than just her preference.

Response: Thank you for the insightful suggestion. The sex of actual MA provider was no recorded in the Form for women obtaining the service. However, we know that all nurses and auxiliary nurse-midwives were females and 79% of doctors were male. Among 1027 women, only 4 women expressed preference for a male doctors, while 35.6% had no preference and 64% preferred a female provider. Given that there was no difference in satisfaction by provider type, the study confirm, albeit indirectly, that sex of the provider has no bearing on the satisfaction with MA. We have added the text:

Providers’ age was significant, but not the length of experience in providing abortion. We also probed if preference for the sex of provider had any bearings on the reported satisfaction with MA. Among 1,027 women included in the study, 366 (35.6%) had no preference, 657 (64%) preferred a female provider and the remaining four women preferred a male provider. Given little (0.4%) preference for male provider, we could only compare women with ‘no preference’ to those with a preference for a female provider and find that the former were more likely to report higher satisfaction than the latter. We were unable to extend the analysis further to examine if the concordance between the preference for sex of provider and of the actual provider resulted in greater reported satisfaction because the study did not document the sex of actual MA provider for each woman obtaining service. However, we know that doctors were mostly men (79%) and nurses and ANMs were all women. The study finds no difference in the level of satisfaction by provider type and thus indirectly confirms that the sex of the actual provider did not influence the reported satisfaction of MA.

Results

4. As mentioned in the previous comment, it would be nice to see some further analysis of concordance in preference for a provider of a specific sex and the sex of the provider she was assigned. Right now, the authors draw the conclusion that preference for female providers drives discomfort with the vaginal examination in the doctors group, but this is not measured directly. Based on the description of variables in the Methods and Discussion, it sounds like you could create a variable that has four categories: 1) wanted female provider, received female provider, 2) wanted male provider, received male provider, 3) wanted female provider, received male provider, and 4) wanted male provider, received female provider. Categories 3 and 4 are the discordant groups, and you might expect satisfaction to
be lower for these women. Including this analysis would provide more support for your conclusions about the role of the sex of providers in client satisfaction.

Response: Thank you. We considered the suggestion, but it was not possible to pursue the analysis for the reasons given above in point c. Only 4 women expressed preference for a male provider.

Discussion

5. In the second paragraph on p.12, the authors discuss privacy and the lack of difference in satisfaction with privacy between the two provider groups. This needs further qualification as all of the women received services in district hospitals where separate rooms are available to help ensure privacy. It is worth mentioning this, and stating that privacy would likely differ by provider type in Nepal more broadly as ANMs staff lower level health facilities like sub health posts where privacy may be more of an issue.

Response: Thank you. We have revised the text, as follows:

Privacy has been noted as one of the most valued features among women seeking abortion. Our study indicates that the majority of the women considered privacy to be the same or better than they had expected and was not associated with the type of provider. Less than 2% of women in the nurse or ANMs’ group and in doctors’ group, reported privacy to be less than expected. However, one should note that the study was conducted in district hospitals where separate rooms were available to ensure privacy. At lower level health facilities such as sub health posts, privacy by provider type may differ with no or little privacy for women seeing nurses and ANMs than doctors. In Nepal, lower level health facilities are often crowded and privacy is uncommon.

6. In the third paragraph on p.12, do the authors have theories about why women at later gestational ages would be more satisfied? Could it be because they expected efficacy to be lower at later gestational ages, or they expected to require surgical abortion due to their later gestational age? Any data you might have about the woman's preferences for method type or expectations about the procedure at baseline would help to clarify.

Response: Unfortunately, we have no data to probe the reasons for the high level of satisfaction among women with pregnancy of 7-8 weeks than those of 5-7 weeks. We have revised the text as follows and cited a study from Finland.

Among the eight independent characteristics, only one – gestational age – was significantly related to the reported level of satisfaction. The odds ratio of high satisfaction was 1.43 for women with 8-9 weeks of pregnancy as compared to those with 5-7 weeks (Table 5). This is in
contrast to the finding from Finland where shorter gestational age was associated with higher satisfaction and acceptability of medical abortion [22]. In the context of Nepal, access to safe abortion services was still limited at the time of the study (2009), especially in hilly and lowland regions. Women with 8-9 weeks of pregnancy may be concerned about terminating pregnancy safely or may have anticipated undergoing surgical abortion. The availability of MA may have therefore augmented their satisfaction. However, with the limited data, we are unable to test these hypotheses or explain reasons for the relatively higher satisfaction among women with longer first-trimester gestational age.

7. In the fifth paragraph on p.12, the authors attribute discomfort with the pelvic exam in the doctors group to the sex of the provider. The concordance analysis mentioned above could help substantiate this. Another explanation for higher level of comfort with the pelvic exam in the midlevel group could just be that attitude/treatment/woman-centeredness is better among midlevel providers, so women feel more comfortable generally than they do with doctors.

Response: We were unable to pursue the proposed concordance analysis for the reasons explained above. We agree with the reviewer, but did not have a question in the Acceptability Form on the attitude and woman-centered care by midlevel providers, compared to doctors.

8. To me, one of the primary findings of this study is that expectations drive satisfaction. I think you miss an opportunity in the Discussion to explore this more fully. If expectations drive satisfaction, this clearly has implications for counseling. That findings did not differ by provider type suggests that both doctors and midlevels were providing high quality counseling, and I think your findings point to the importance of ensuring that all providers are giving complete information about what to expect when taking MA.

Response: Thank you for highlighting this important finding. We have revised the text better address this point. The following text has been added.

The role of counseling on acceptance and satisfaction with MA has not been extensively studied. Almost all women in this study reported being counseled which may have played a role in the high level of satisfaction with MA service. An understanding of the steps of the procedure and signs of complications can significantly help women better address the common symptoms that are associated with MA. These counselling service proximate measures were nearly universal and similar by type of provider. Nearly all women responded “yes” to questions on whether the method or signs of complications were explained, contraceptive counselling provided, and the opportunity provided to ask questions. These variables were, therefore, not included for the multivariate analysis shown in Table 5. Perhaps because of high quality counselling on MA and
anticipated complication by both type of providers, the level of satisfaction reported by women was high. The training of providers on MA placed high emphasis on counselling and communication, in addition to technical competence. Therefore, the findings from study hospital shown here may not hold broadly for Nepal. However, these findings suggest where counselling coverage and quality are higher, women are likely to be satisfied with the method.

Overall

9. There are some typos throughout the manuscript that look like they are due to acceptance of track changes. It would be good if the authors could re-read and correct these.

Response: Thank you for spotting typos. We have re-read and corrected the typos.