Author's response to reviews

Title: Prevalence of IUCD discontinuation and its associated factors: Findings from a retrospective study with clients of a social franchising network in Pakistan.

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Version: 3 Date: 19 February 2012

Author's response to reviews: see over
Reviewers report
Title: Prevalence of IUCD discontinuation and its associated factors: Findings from a retrospective study with clients of a social franchising network in Pakistan.
Version: 2 Date: 8 December 2011
Reviewer: Ajmal Agha
Reviewer’s report:
Major compulsory revisions
Title
In the title, instead of “prevalence”, the word “rate” or “frequency” should be used as the study did not sample FP methods users in the general population.
Response: Changed.
“Rates of IUCD discontinuation and its associated factors: Findings from a retrospective study with clients of a social franchising network in Pakistan”.

Abstract
1. Objectives are written in methods in the abstract. Please put them in the background.
Response: Changed
2. Cross sectional is never a retrospective study. It is just capturing data at a point in time or a period of time. I recommend that the word retrospective should be removed.
Response: Changed. The word ‘retrospective’ is removed
3. Please mention how the percentage 81.7, which is mentioned in the last line of findings on page 2, was calculated. What was the denominator?
Response: Total number of women who were interviewed, used as a denominator i.e. 2789; irrespective of the fact that she discontinued the IUCD, or still a user at the time of survey.
Revised statement from abstract: “However, among total women still 81.7% expressed willingness to avail IUCD services from Suraj provider in future, if needed”.
4. The conclusions don’t address all the objectives set for the study. Also some of the conclusions are not directly coming from the study findings.
Response: The conclusion has been made more specific. However, we deem that the findings do substantiate the conclusion. Early discontinuation was more prominent and to prevent this from happening, counseling techniques of Suraj provider and FWM need to be enhanced; further, the FWM needs to pay more follow-up visit to the IUCD user to ensure continuity by timely counseling and immediate referral to Suraj provider.
Response: Following research shows provider counseling and skills can control/reduce discontinuation.

Main article
1. Objectives
a. Rationale of the study, second last line: Use the word associated factors rather than reasons. The latter is more a qualitative term.
Response: Changed
Also here, authors mention that the study will capture the level of satisfaction and accessibility; however, these objectives are not mentioned when objectives were phrased in the abstract.
Response: satisfaction and accessibility were the secondary objectives, thus not mentioned in the abstract.
b. Italicize the word Suraj in the objectives on page 6.
Response: Changed accordingly
2. Methods
a. In methods section, sampling strategy has to be reviewed. Some of the aspects are as below.
  i. What was the list frame? Did that include only providers with healthy clients flow?
Response: There were three list frame: a) the list of districts consisted 18 district names; b) List of providers within each districts with their client flow in the corresponding columns; c) once the providers were selected, data (hard copies) on each client were brought from field for specific (6, 12, and 24 month) time period and were entered into excel sheet. This makes a list of total clients 4011, of which 3000 were selected.
If yes, how many were they in each area?
Response: The number of Suraj providers in each district ranged from 3 to 7.
Also operational definition of the word healthy client flow should be included.
Response: At least (averagely) 25 IUCD performed in the specified months.

ii. Again logic for 55% and 45% voucher and non voucher clients’ selection is not given. Was that true in the overall sample? Why was the Probability proportional to size (PPS) sampling technique not employed at each step of multistage sampling? Also the reason given for choosing the higher number of voucher scheme client is related more with the program than with the current study.
Response: Since the study was conducted under/for the bigger programme therefore the reasons for selecting higher number, as mentioned, was to address programmatic needs. At first stage, stratified PPS was used for the selection of districts. However, as mentioned in the manuscript the rationale for not doing PPS in rest of the stages is more linked with operations and programmatic need.

iii. No rationale is given for choosing six districts from Punjab and three from Sindh. Where were the 18 districts from?
Response: Half of the districts were selected i.e. 9 out of 18 due to financial and time constraints.

Despite the use of random sampling technique, three districts each were included from each major area – southern Punjab, northern Punjab and Sindh. Authors should review if they stratified the areas and choose the equal number of districts.
Response: Yes, it was stratified random selection and corrected in the manuscript.

iv. Since the sample size was not calculated, post-hoc power analysis should be done for the insignificant associations.
Response: Post-hoc analysis was carried out for each insignificant relation using PASS 11 (Power analysis and Sample size) software. The maximum power estimate was around 40%. The below table shows the power calculations:

<table>
<thead>
<tr>
<th>Variables</th>
<th>IUCD Discontinuation</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Overall PR (95 % C.I)</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>PR</td>
</tr>
<tr>
<td>Age of women</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;15 – ≤25</td>
<td>422</td>
<td>72 (17.1)</td>
</tr>
<tr>
<td>&gt; 25 –≤35</td>
<td>1880</td>
<td>344 (18.3)</td>
</tr>
<tr>
<td>&gt; 35 –≤45</td>
<td>487</td>
<td>110 (22.6)</td>
</tr>
<tr>
<td>Number of children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 2</td>
<td>590</td>
<td>119 (20.2)</td>
</tr>
<tr>
<td>3</td>
<td>564</td>
<td>93 (16.5)</td>
</tr>
<tr>
<td>4</td>
<td>631</td>
<td>104 (16.5)</td>
</tr>
<tr>
<td>5 or more</td>
<td>1004</td>
<td>210 (20.9)</td>
</tr>
<tr>
<td>Family status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed family</td>
<td>5</td>
<td>2 (40.0)</td>
</tr>
<tr>
<td>No children</td>
<td>293</td>
<td>74 (25.3)</td>
</tr>
<tr>
<td>Boy(s) only</td>
<td>163</td>
<td>32 (19.6)</td>
</tr>
<tr>
<td>Girl(s) only</td>
<td>2328</td>
<td>418 (18.0)</td>
</tr>
<tr>
<td>Education of women</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>1665</td>
<td>298 (17.9)</td>
</tr>
<tr>
<td>Primary</td>
<td>682</td>
<td>133 (19.5)</td>
</tr>
<tr>
<td>Secondary</td>
<td>349</td>
<td>74 (21.3)</td>
</tr>
<tr>
<td>Inter or post</td>
<td>94</td>
<td>21 (22.3)</td>
</tr>
<tr>
<td>Service availed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Referred by FWM (paid out of pocket)</td>
<td>1225</td>
<td>213 (17.4)</td>
</tr>
<tr>
<td>Free of cost (thru voucher)</td>
<td>1564</td>
<td>313 (20.0)</td>
</tr>
<tr>
<td>Type of IUCD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper-T</td>
<td>790</td>
<td>134 (17.0)</td>
</tr>
<tr>
<td>Multi-load</td>
<td>1999</td>
<td>392 (19.6)</td>
</tr>
</tbody>
</table>
### Reason for choosing IUCD

<table>
<thead>
<tr>
<th></th>
<th>Others</th>
<th>Accessibility</th>
<th>Long term effectiveness side effect</th>
<th>Suggested by FWM or satisfied client</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>217</td>
<td>31 (14.3)</td>
<td>277 58 (20.9)</td>
<td>1.4 0.9-2.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3 0.9-1.8</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>0.9-1.8</td>
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<td>0.34</td>
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<tr>
<td></td>
<td></td>
<td>1.4 1.0-2.0</td>
<td></td>
<td>0.51</td>
</tr>
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</table>

### Receiving of IUCD

<p>| | | | | |</p>
<table>
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<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>24 month</td>
<td>167 (22.7)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12 month</td>
<td>180 (18.8)</td>
<td>1.12 .9 -1.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 month</td>
<td>179 (16.3)</td>
<td>1.5 1.2 - 1.9*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. Why 6, 12 and 24 months cohorts were chosen and not 6, 12 and 18 months? Does that have any link with the programmatic activities? Please mention

Response: The reason for choosing 6 month was to compare the findings with an outreach evaluation conducted by MSS earlier, while 12 and 24 month discontinuation rates are reported very frequently in other developing countries [1,2,3,4]


c. Was there any exclusion criterion?
Response: Anyone who didn’t fall under inclusion criteria was excluded.

d. In the section on statistical analysis, write about the cut off p-value that was used include the variables from univariate to multivariate analysis
Response: All the variables that showed p-value of 0.25 were included for multivariable analysis.


e. In data collection and management section, in the last two lines, the terms intra and inter rater variability are mentioned. Please mention, how these were measured and the statistical test used?
Response: Following quality checks were made:
  a) 5% of the interviews were conducted under supervision of field in-charge
  b) 5% of the interviewees were met in-person by field incharge to verify the visit
  c) 5% of the interviews were redone by field incharge.

However, no data was used in the field for re-orient the interviewers to address understanding gaps. This statement has been removed from the para.

3. Findings

a. Socio-demographic characteristics: Husband’s education could be an important factor. If captured should be included in the analysis
Response: We did not capture info on this.

b. For the variables means are calculated, standard deviations should also be mentioned
Response: SDs are added

c. In the section on “Discontinuation of IUCD, reasons, accessibility and level of satisfaction with services” the finding “No variation was found between the responses among the women of three cohorts (2 in Punjab and one in Sindh)” should be backed by the statistical test and CI.
Response: The statement has been deleted as it intended to say that the women characteristics were consistent across 3 cohorts. Results were not presented in the manuscript therefore the statement is omitted.

d. Add the word univariate analysis in the caption of table 2. Use the term OR instead of PR.
Response: PR was calculated using Cox regression in SPSS keeping the time variables constant.

4. Discussion
a. Paragraph 3, instead of the terms directly proportional and relationship use the term association. Similarly the word correlated should also be removed.
Response: Corrected

b. Paragraph 3: Please review the statement, “Insignificant association between discontinuation and receiving service free of cost indicates the strong voucher distribution mechanism”.
Response: The statement is rephrased and made more specific.

c. The finding that the clients living closer to the Suraj were more likely to discontinue IUCD merits discussion. Similarly the possible reasons for the higher odds of continuation of clients in Sindh should be discussed.
Response: Moreover, the higher discontinuation among women living closer to the Suraj centre may be attributed to the lack of accessibility to other removal services as the programme targeted the rural areas and the dependency of IUCD user on healthcare provider (for insertion and removal).

5. Conclusions
a. The conclusion, “Such interventions and strong counseling for promoting the use of long term contraceptive methods are one solution to resolve the issue of high unmet need for contraception in Pakistan [21]. In addition, the study highlights the need to provide counseling to the women to switch to any suitable contraceptive method of their choice, in case they get IUCD removed “ is not based on the findings of the study.
Response: Following research shows provider attitudes towards discontinuation and that proper counseling can reduce discontinuation rates.

Moreover, since large number of the women who discontinued, did not opt for another method in spite of the fact that they didn’t have pregnancy desire. Therefore, the provider should do: counseling about possible side effects and prevent discontinuation; and also those who discontinue should be counseled to switch other modern method.

The statement regarding resolving issue of high unmet need has been written off as it was beyond the scope of the study.

6. Minor essential revision
a. Discussion paragraph 2: The term IUD is used instead of IUCD.
Response: Corrected

Reviewer's report
Title: Prevalence of IUCD discontinuation and its associated factors: Findings from a retrospective study with clients of a social franchising network in Pakistan.
Version: 2 Date: 11 January 2012
Reviewer: Sara Husain
Reviewer's report:
Major Compulsory Revisions
1. Methods: Calculation of sample size has not been discussed. This needs to be addressed clearly stating the assumptions made.
Response: The sample size was not scientifically calculated.

2. Results: A comparison between users and non-users of IUCD is necessary to compare how the groups are different and identify socioeconomic factors which may influence decision making.
Response: These variables were included in the multivariable stage. However, none of these showed any significant association with IUCD use.

3. Conclusion: Strengthening the counselling component is an excellent policy option and needs to be better explained with emphasis on existing FP programs in the country and how these may use the results of the study and build on counselling skills of healthcare providers. Also, experience of other countries which have built on counselling services should be added as supportive evidence.
Response: The importance and need of proper counseling has been mentioned in conclusion. We think providing more details may be unnecessary for this paper as they seem beyond the scope of this paper; however, separate studies can be conducted on importance of counseling and client satisfaction.

Minor Essential Revisions
1. Abstract: There is no rationale for the conduct of the study.
Response: Rationale is added.
Mentioned in Methods as “high discontinuation rates” but there is no supporting evidence indicating exactly how high the discontinuation rate is for IUCDs versus other contraceptive methods.
Response: The sentence has been rephrased. ‘high rates’ is removed.

Duration of the study is not mentioned.
Response: Under data collection and management, it is stated that the data collection took place in January 2011.

2. Background:
Para 2: There is no data to prove the “effectiveness” of IUCDs and why countries should “renew interest in the method”

The percentage of IUD effectiveness has been incorporated. The introductory passage seems to provide enough evidence to just why countries should ‘renew interest in the method’. However, per reviewer’s suggestion the statement has been shortened-up considering the data is not enough to build the argument.


3. Context:
Table 1: Table title should suggest content of the table. Also reconsider information being shown in the table. The same in narrative form in preceding text would be more useful in building a case for contraception need.
Response: Revised accordingly.

4. Rationale:
Para 1: The partnership model is being referred to by different names “MSS Private Provider network”, “PPP/Suraj network”. These need to be addressed uniformly throughout the article. Para 1: Various acronyms FWM, PSPs are used without any explanations.
Response: Corrected.

5. Results:
Para 1: There is no comment on the rising trend of IUCD removal over time and no attempt to explain this trend. This needs to be explored to understand why discontinuation continues to rise over time.
Response: The section is added accordingly.

Discretionary Revisions
1. Sampling:
Para 1: What is meant by “healthy client flow?”
Response: At least (averagely) 25 IUCD performed in the specified months.

2. Discussion:
Para 1: “The method is popular in a group with no formal education”. This is to be expected in rural areas where the Suraj programme is focused. This sentence needs to be re-phrased, as it would be more meaningful if it was an urban setting.
If education status is of interest, education levels between continued users and those who discontinued IUCDs should be compared instead.
Response: The sentence is omitted.

Para 3: How does a similar discontinuation rate among voucher users and paying clients indicate a “strong voucher distribution mechanism”?
Response: The statement is rephrased and made more specific. If discontinuation rates were higher among voucher clients, this would have indicated that vouchers are distributed without assessing the needs, that is, not following the distribution criteria. There might have been a chance of fraudulent cases just to get more remuneration.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Needs some language corrections before being published
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests: I declare that I have no competing interests