ORIGINAL ARTICLE

Community acceptability of contraception after induced versus spontaneous miscarriage.

Zainab Maqsood¹, Majida Zafar², Syeda Batool Mazhar³, Khawar Sultan⁴

ABSTRACT... Objective: To study the relationship between history of miscarriage (induced or spontaneous) and current use of modern contraceptive method among women in Pakistan. Study Design: Cross Sectional study. Setting: OPD of MCH, PIMS. Period: July 2019 to December 2019. Material & Methods: A total of 80 married women were enrolled, 40 women who had induced miscarriage (group A) and 40 from spontaneous miscarriage (group B). Data is obtained on pre-designed questionnaire. Primary outcome was acceptance of contraception (LARC) after induced versus spontaneous miscarriage. Results: About 51% of women were in the age group of 30–35 years and out of total 80 women, 67 (83%) women had parity of three or above (27% had parity of three). Out of 66 women who used contraception, 35 (53%) had induced miscarriage (group A) and 31 (46%) had spontaneous miscarriage (group B). Women who belonged to induced miscarriage (group A) faced menstrual irregularity, as the reason of leaving contraception, followed by chronic PID and husband opposition. While in the group B, fertility desire was main reason of discontinuation of contraception. In Group A, 20 (50%) women were willing to use LARC (long acting reversible contraception) after induced abortion to reduce the chances of unwanted pregnancy while in other group B, 15 (37.5%) women were wanted to use LARC and 18 (45%) women were not ready to use contraception due to fertility. Conclusion: High rate of induced abortion due to failed contraception and dis-continuation of contraceptives needs to be addressed by encouraging women to manage the side effects to ensure continuity of contraceptives.

Key words: Induced Miscarriage, Long Acting Reversible Contraception (LARC), Spontaneous Miscarriage.

INTRODUCTION

Women are often encouraged to use contraception after terminating a pregnancy in order to prevent future unwanted or undesirable pregnancies and subsequent abortions.¹²³ However many of these women could not avail contraception. Most of the times it was not easily accessible. About more than half of these pregnancies ended up in induced abortions. One third of world population lives in a country where induced abortion is not acceptable on request, or socioeconomic factors are not considered legal for induced abortion.⁸ Therefore, contraception provide birth control and prevention of unplanned pregnancies.⁷

Women who want to have a baby late called as “mistimed” and those who do not want to have pregnancy at all are called “unwanted pregnancy.” Anxiety, denial and unawareness to the contraception use can lead to termination and result in serious complications, morbidity and mortality.⁴

Studies have shown that a key predictor of induced abortion is indicating that women are not getting access to modern methods of contraception after their first induced abortion to prevent another unwanted pregnancy.¹⁵ Other studies have shown that having an abortion may lead to increased use of contraception.¹ Post-abortion care (PAC) should be legally available to all women, regardless of a country’s abortion policies.¹ Despite the improvement in contraception uptake, Pakistan contraception prevalence rate is only 34% according to PDHS 2018 of which only 25% population uses modern

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Mixed evidence from these studies indicates a need for additional research to better understand whether women who have induced abortions in places where it is not widely available are getting the services they need to prevent future unintended pregnancies and repeat abortions.

The aim of the present study was to investigate the relationship between history of abortion (induced or spontaneous) and current use of a modern contraceptive method among women in Pakistan.

MATERIAL & METHODS
This cross-sectional study was conducted at Outpatient Clinic of MCH PIMS, Islamabad from July 1, 2019 to December 31, 2019.

The sample size was 80 patients. Non-pregnant women from age 15 to 45 years who have history of miscarriage before 24 weeks of pregnancy. Women who had miscarriage after 24 weeks. After approval from ethical review board of SZABMU on 6th June 2019 (F1-1/2019/ERB/SZABMU) patients fulfilling selection criteria were divided into two groups. Group A women had history of induced miscarriage while group B women had spontaneous miscarriage. All patients were interviewed through a questionnaire containing socio-demographic details (age, patient occupation, husband occupation, patient income), reproductive profile, use of contraception method, side effects, reason of not using any contraception method, number of induced/spontaneous miscarriages and reason of induced abortion. Data were collected after obtaining informed consent. Primary outcome was acceptance of contraception (LARC) after induced versus spontaneous miscarriage. Data will be analyzed by descriptive analysis by SPSS 21.

RESULTS
About 51% of women were in the age group of 30–35 years and out of total 80 women, 67 (83%) women had parity of three or above (27% had parity of three). 31 (38.8%) had 2 or more male and 1 female gender of alive children followed up by 21 (26.3%) had 2 or more male children. 67 (83.8%) women belonged to Muslim religion, 11 (13.8%) were Christian and 2 (2.5%) were Hindu. 73 (91.3%) women were housewives, 5 (6.3%) were teacher and 2 (2.5%) were doing some private job. Majority of the women’s husband 32 (40%) were doing some private job and monthly income was around 20,000 rupees. Out of total 80 women, 66 (82.5%) used contraception. Out of 66 women who used contraception 35 (53%) had induced miscarriage (group A) and 31 (46%) had spontaneous miscarriage (group B). The most common method chosen was barrier method 39 (48.8%), followed by pills/injectables 16 (20.0%), traditional methods 6 (7.5%) and IUD/implanon 4 (5%) [Table-I].

Of the total 80 women, 14 women (18.8%) were not using any method of contraception. Remaining 66 women were asked about the correction of method and side effects with the use of contraceptive method. About 52.5% women were not practicing contraception method correctly. Majority 21 (26.3%) women reported side effects of menstrual irregularity followed by 18 (22.35%) reported vaginal discharge, lower abdominal pain 16 (20.0%) and three (3.53%) women had weight gain. Eight (10%) women out of 66 reported no side effects of contraceptive method used. Reason of leaving contraception in this study were menstrual irregularity 23 (28.8%), chronic PID 21 (26.3%), fertility desire 12 (15%), husband opposition 7 (8.8%) and weight gain by 3 (3.5%) women [Table-II]. Women who belonged to induced miscarriage (group A) faced menstrual irregularity, as the reason of leaving contraception, followed by chronic PID and husband opposition. While in the group B, fertility desire was main reason of discontinuation of contraception.

Around 72.5% (58) women had knowledge about contraceptive methods and majority belonged to group of spontaneous miscarriage. Similarly 77.5% women answered positively and majority belonged to spontaneous group.

Women who had induced miscarriage, the main
reason was unwanted pregnancy in 25 (62.5%) women out of 40 and financial issue in 15 (37.5%) women. Interruption of pregnancy was mainly observed at gestational age less than 3 months in 41 (52.5%) women in both groups (A & B). Out of total 40 induced abortions, 24 (60%) were conducted in private clinic and 16 at home.

These induced abortions were mainly conducted by LHV (Lady Health Visitor) 34 (85%) followed by staff nurse 5 (12%). In Group A, 20 (50%) women were willing to use LARC after induced abortion to reduce the chances of unwanted pregnancy while in other group B, 15 (37.5%) women wanted to use LARC and 18 (45%) women were not ready to use contraception due to fertility desire [Figure-2]. Furthermore women were asked about abortion permissibility in religion, 64 (80%) out of 80 women answered “NO” [Figure-1] and majority 38 (95%) out of 40 women belonged to spontaneous miscarriage group.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>No Method Used</td>
<td>14</td>
</tr>
<tr>
<td>Traditional</td>
<td>6</td>
</tr>
<tr>
<td>Barrier Method</td>
<td>39</td>
</tr>
<tr>
<td>Pills/Injections</td>
<td>16</td>
</tr>
<tr>
<td>IUD/Implanon</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
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**Table-I. Prevalence of contraception.**

<table>
<thead>
<tr>
<th>Reason of Leaving Contraception</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Contraception Used</td>
<td>14</td>
<td>17.5%</td>
</tr>
<tr>
<td>Fertility Desire</td>
<td>12</td>
<td>15.0%</td>
</tr>
<tr>
<td>Menstrual Irregularity</td>
<td>23</td>
<td>28.8%</td>
</tr>
<tr>
<td>Valid Weight Gain</td>
<td>3</td>
<td>3.7%</td>
</tr>
<tr>
<td>Chronic PID</td>
<td>21</td>
<td>26.3%</td>
</tr>
<tr>
<td>Husband Opposed</td>
<td>7</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Table-II. Reason of leaving contraception.**

**DISCUSSION**

Family planning in a society forms a vital component of modernization and much needed for the incorporation of women into social and economic life. In our study, the maximum number of women (51%) were aged between 30 and 35 years. In another study maximum women belonged to age group 25 and 34 years. Majority women who participated in the study were Muslim as this study was conducted in a Muslim country. Women who participated in the study had parity of three or more and 38.8% had 2 or more male children.

Majority women 91.3% were not working outside the home which is comparable to Iran study where 87.1% of the participants were not involved in any job. In our study 88% women were educated at least till secondary level comparing...
it to Iran study, where 40-79.2% women were graduated. According to PDHS\textsuperscript{8} survey 2017-18 contraception prevalence rate is 34 % in our country while in our study it was 82%, either contraceptive method used once in their life or for longer period of time.

In our study 72% women had awareness of contraceptive method and also know about their availability. Comparing it with other study, up to 91.0% women were aware of contraceptive methods\textsuperscript{7}. This is comparable to 81% in a national study conducted in the rural area of Sindh by Mustafa et al\textsuperscript{11} and 91.4% seen in International study conducted in Jordan.\textsuperscript{12} Our study found no relationship between level of education and use of contraception but it was directly related to awareness of contraception.

Occurrence of atleast one life time abortion was 45.7% in Iran\textsuperscript{9}, while in our study, it was quite high 67.5%. Most of the miscarriages were in 1\textsuperscript{st} trimester 52.5% which is comparable to a study conducted in Zombie which showed 59% women had miscarriages between 7-12 weeks of gestation. Uncertainty of sign and symptoms of miscarriage, lower abdominal pain and vaginal bleeding could be the reason.

In our study 18% women did not use any kind of contraception. Most common method used for contraception was barrier method 48% followed by injectables 20%. In contrast to a local study conducted in Pakistan by Jabeen et al\textsuperscript{13} 69.20% were not using any contraception method. Traditional methods (withdrawal and rhythm methods) were the commonest method of contraception among 5.9% women, followed by injectable (5.3%) and tubal ligation (5.1%).\textsuperscript{13} While a study conducted in India by Sharma et al\textsuperscript{4} showed that the use of contraceptive was 73.28% and condom/barrier (24.13%) was the commonest method used. Most common side effect of contraception was menstrual irregularity in 26% followed by vaginal discharge in 22%, lower abdominal pain in 20 % and weight gain in 3.8% women in our study. Similar results were shown by Jabeen et al\textsuperscript{4} in which menstrual disturbance was observed by 23.80% women, and weight gain in 11.19% women.

In our study menstrual irregularity 26% was the main reason of leaving contraception, after that was fertility desire in 15%. In contrast, fertility-related reasons were found as the main reasons for leaving contraception in studies by Das et al.\textsuperscript{14} (38.9%), Khokhar and Mehra\textsuperscript{15} (30.7%), and Bhasin et al.\textsuperscript{16} (36.4%). Other studies mentioned opposition by family as the biggest reason for the non-use of contraception.\textsuperscript{17,18} Out of all the women with induced abortion, 50% accepted LARC as a method of contraception to avoid future induced abortion. Which is comparable to the high acceptability of LARC in a study conducted by china where 42.5% women were intended to use LARC after induce abortion.\textsuperscript{10}

As our study was having limited data, large sample size can give more reliable results so that appropriate interventions can be done.

CONCLUSION
High rate of induced abortion due to failed contraception and dis-continuation of contraception needs to be addressed by encouraging women to ensure continuity of contraceptives. Long acting reversible contraception (LARC) is the way forward to avoid complications of induced abortion.

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REFERENCES


**AUTHORSHIP AND CONTRIBUTION DECLARATION**

<table>
<thead>
<tr>
<th>No.</th>
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<th>Contribution to the paper</th>
<th>Author(s) Signature</th>
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