Abstract

Introduction: This paper highlights the findings pertaining to profiles of abortion seekers, reasons for induced abortions and methods used, and treatment for post-abortion complications (PACs).

Methods: This paper is a review of community studies on induced abortion in Pakistan between 1969 and 2010, including the Induced Abortion Survey (IAS) 2010, in which the author took part.

Results: Findings from the review show that the profile of abortion seekers has remained by and large that of uneducated women aged over 30 with at least three children. A predominant reason for seeking abortion was contraceptive failure. Providers fall into both trained and untrained categories, yet complication rates are high even when women believe that they are going to safe providers in clinics or hospital settings. Dilation and curettage (D&C) (or evacuation) predominates among methods used while the use of folk methods may be on the decline. The IAS shows that women seek assistance for complications sooner than earlier studies have found.

Conclusion: The review shows that despite a perceived stigma around the subject, community-level research is possible and further studies need to be done in other parts of the country. The paper concludes with suggestions for more community studies to explore these findings further and capture the diversity of the Pakistani context. It also suggests that advocacy and further research into the role of "semi-safe" providers be explored.

Keywords: Induced abortion, Post-abortion complications, Health-seeking behaviour, Community-based studies.

Introduction

Pakistan is experiencing peak interest in the provision of safe abortion services and treatment for unsafe abortion-related complications. At this stage, it is useful to review the knowledge that has accumulated to date about induced abortion in our context as a means to achieving clarity on how best to reduce unsafe abortion-related complications among women. There is a relatively large body of literature based on medical studies in hospitals around the country regarding the management of cases. Khan (2009) provides a useful review of the major findings of medical research, covering 27 studies. There is a small set of community-based research into induced abortion in Pakistan based mainly on work in rural and urban Punjab and Sindh. This paper presents community studies conducted during the period 1969-2010 (Box-1) and includes selected findings of the latest community-based survey, the Induced Abortion Survey (IAS) 2010 which was conducted by the author and a team based at the Collective for Social Science Research. Findings pertaining to the profile of abortion-seekers, reasons for induced abortion, methods and providers used, and treatment for post-abortion complications (PACs), are presented. The purpose of the review is to provide suggestions for future research and potential advocacy messages.

A comparison across community studies is difficult as they took place at different time periods and with varying research purposes, methodologies, and sample types. These studies are not representative of the population, either. However, they do serve as a basis from which qualitative and quantitative surveys can be designed to test their findings further.

Abortion rates

The first published study was conducted in Lahore by the Maternity and Child Welfare Association of Pakistan (MCWAP). This took place at a time when the public discussion of family planning (FP) was still a novelty, yet field research on abortion was possible. A total of 1,447 respondents in an urban community were followed during their pregnancies. The study found that 5.7% of all pregnancies ended as induced abortions. Two other urban community studies also conducted by MCWAP reported a 4.9% and 4.2% rate of induced abortion out of all pregnancies followed. Karachi community studies noted that the abortion rate was underestimated; they found 41% of 34 women interviewed with a history of at least one induced abortion. A recent study, which will be referred to as

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the IAS 2010 study, purposefully selected women with a history of induced abortions, as did Rahat et al. (2003) in rural Punjab and Sindh, so these did not establish rates.

These findings indicate that abortion rates may be higher than community-based studies have previously shown. The only way to establish this will be through one or more representative quantitative surveys.

Profiles
The profile of women who sought to terminate their
pregnancies gives us the broader context in which to analyze PACs. The earliest study shows that abortion seekers were married, predominantly illiterate, and had been pregnant more than once. Almost 40% had been pregnant six or more times.\textsuperscript{2} Research in low-income communities in Karachi reveals that women were married and had three or more living children at the time of their first induced abortion.\textsuperscript{3} Later research found that grand multi-gravidity (five or more pregnancies) was a strong predictor of induced abortion and that literate women were at a higher risk of seeking induced abortion.\textsuperscript{6} A survey of women who sought abortions at clinics in Karachi, Lahore, and Peshawar, found that 91% of them were married, most had five or more children, and almost half were illiterate.\textsuperscript{7} The Population Council survey of health professionals across Pakistan found that the typical woman seeking an induced abortion at the surveyed health facilities was older than age 30, married, uneducated, and had five or more children.\textsuperscript{8}

The sample for the IAS consisted of 477 women with a history of induced abortion, and a control group of 222 women. Those with a history of induced abortion had, on average, six pregnancies and at least one such abortion, thus far. Most of these women were aged 25-39 and married. Almost half possessed no education at all. Of these women, 68.3% had 3-5 children. These findings are consistent with the other studies mentioned above that found factors such as age, more than three living children, and five or more pregnancies, positively correlated with a woman seeking an induced abortion. However, only the IAS and Saleem (1998)\textsuperscript{6} found that if a woman is literate, she may be more likely to seek one.

**Reasons**

The literature shows that contraceptive failure is one of the most common reasons that women seek induced abortions.\textsuperscript{5,9} In fact, Fikree et al. (1996) found that 40% of women in two low-income settlements of Karachi were using some method of FP before conceiving.\textsuperscript{3} Rehan et al.'s (2001) study of women seeking abortions in 32 clinics in Karachi, Lahore, and Peshawar also found that 20% of women were having pregnancy terminations because of contraceptive failure.\textsuperscript{7} The Population Council found that almost three-quarters of health professionals surveyed nationwide said that women were using a method of birth control at the time of the unwanted pregnancy.\textsuperscript{8}

The IAS found that a fifth of the total number of pregnancies (target + control groups=4,120) were preceded by the use of contraceptives and among the abortion sample, it was 22%, and the control group, 15.6% of pregnancies.\textsuperscript{4} This means that women were making the important decision to attempt to prevent pregnancy, but that it did not work.

Of those who used induced abortion as an alternative to contraception or responded to contraceptive failure (Table-1), 48.6% said they wanted to space childbirth and 18.8% used abortion because they did not want any more children.

The IAS found that age, pregnancy, and previous births of boys were also strong predictors of the probability of an induced abortion. More births were declared unwanted if...
a woman had many previous male live births. Male live births preceding a pregnancy were generally associated with a higher rate of contraceptive use.

**Providers**

Abortion providers identified in community-based research include qualified doctors, lady health visitors (LHVs), nurses, paramedics, untrained dais, and hakims. In Fikree et al (1996), only 23.3% reported cost as a primary concern in selecting a provider. At least one study identified that half of induced abortions surveyed were conducted at the woman’s house. Saleem and Fikree (2005) found that of all the clinics they surveyed, only 22% met the World Health Organization (WHO) standard for safe pregnancy termination. The WHO refers to it as “the termination of an unintended pregnancy either by persons lacking the necessary skills, or in an environment lacking the minimal medical standards, or both.”

According to health professionals surveyed by the Population Council across Pakistan, poor women were most likely to go to a nurse, midwife, or LHV (98%) for an abortion, followed by dais (81%), and other practitioners. Non-poor urban women were said to be more likely to go to a doctor in a private or public facility. According to Rahat et al. (2003), private practitioners were reported to be the major providers of induced abortion whether or not they were qualified. This study also reported the use of manual vacuum aspiration (MVA) among women.

In the IAS, women described the places where they had sought abortions (Table-2), indicating that 70% believed they were at a private or government hospital facility. In fact, the only locations in the non-formal sectors, i.e. a dai’s clinic or woman’s own home, accounted for 17% of abortions.

Women were also asked to identify their abortion service provider as per their own understanding at the time of the procedure (Table-3). This type of questioning was unique in that it sought to address the issue of provider and method from the perspective of the woman who was seeking the abortion. The overwhelming number of women respondents (n= 252) believed they had visited a doctor, a lady health worker (LHW) or an LHV (n=104). If we include the category of trained nurses/midwives, we find that 89% believed they were going to a trained provider, yet the complication rate remained high. Qualitative research conducted in preparation for the IAS 2010 revealed that there were abortion providers in communities who referred to themselves as “nurse” or “doctor”. They were unqualified, yet accepted by community members as such.

**Methods**

Community studies give us some insight as to preferred methods in use. Karachi data collected during 1997 revealed that dilation and curettage (D&C) was the most successful method quoted among women in three squatter settlements followed by intra-vaginal placement of allopathic medications, sticks, and drips or injection. The Population Council survey of health professionals found the most commonly reported surgical methods for terminating pregnancies were D&C (72%) and evacuation and curettage (E&C) (32%). They also reported that after a D&C, the next most common methods were the use of a laminaria stick, followed by an intrauterine contraceptive device (IUCD), hormonal drugs/pills, and hormonal drugs or intra-vaginal tablets. In one Lahore community study, the methods of choice

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<table>
<thead>
<tr>
<th>Method</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaginal pill</td>
<td>57</td>
<td>11.9</td>
</tr>
<tr>
<td>Oral</td>
<td>92</td>
<td>19.3</td>
</tr>
<tr>
<td>Made unconscious</td>
<td>101</td>
<td>21.2</td>
</tr>
<tr>
<td>Machine used</td>
<td>180</td>
<td>37.7</td>
</tr>
<tr>
<td>Other modern method</td>
<td>40</td>
<td>8.4</td>
</tr>
<tr>
<td>Folk method</td>
<td>7</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>477</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Provider</th>
<th>No complication</th>
<th>Single less severe</th>
<th>Multiple less severe</th>
<th>More severe</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>70.2</td>
<td>12.7</td>
<td>8.3</td>
<td>8.7</td>
<td>100.0 252</td>
</tr>
<tr>
<td>Trained nurse/midwife</td>
<td>73.9</td>
<td>8.7</td>
<td>8.7</td>
<td>10.6</td>
<td>100.0   69</td>
</tr>
<tr>
<td>LHV/LHW</td>
<td>73.1</td>
<td>9.6</td>
<td>6.7</td>
<td>12.0</td>
<td>100.0   104</td>
</tr>
<tr>
<td>Untrained midwife</td>
<td>52.0</td>
<td>28.0</td>
<td>8.0</td>
<td>14.8</td>
<td>100.0   25</td>
</tr>
<tr>
<td>Self</td>
<td>59.3</td>
<td>22.2</td>
<td>3.7</td>
<td>14.8</td>
<td>100.0   27</td>
</tr>
<tr>
<td>All</td>
<td>69.8</td>
<td>12.8</td>
<td>7.8</td>
<td>9.6</td>
<td>100.0   477</td>
</tr>
</tbody>
</table>

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Table-2: Abortion method in Induced Abortion Survey.

Table-3: Induced Abortion Survey complications and severity by abortion service provider (%).
included oral medications. The IAS allowed us to deduce what methods may have been used by asking women to name them (Table-4). "Machine used" most likely refers to a dilation and evacuation (D&E) since the use of MVAs is not widespread, yet. "Made unconscious" refers to sedation or anaesthesia, which also implies a D&E or D&C. Most significant is the low rate of traditional or "folk methods" to induce abortion, in contrast with the wider range of pills, suppositories, and instruments used in almost all the other studies. However, complication rates associated with these newer methods are still high, i.e. 25%-38%.

**Post-abortion complications**

Researchers have found that women were aware of the risk of PACs, but in order to meet their goals of limiting family size, they were willing to seek unsafe abortions and face the related consequences. There was a high PAC rate among the women in Saleem and Fikree’s (2001) study (68.5% of 89 women with successful termination), with over half reporting fever and heavy vaginal bleeding. The types of PACs also included weakness, symptoms of infection, pelvic pain, and menstrual irregularities. Men and women differed in their understanding of symptoms and infections, and men were found to know more about the risk of PACs than women. When an untrained midwife performed the procedure, almost half the women surveyed for the IAS suffered complications. When they administered it themselves, about 40% had complications and almost 15% had more severe symptoms (Table-5). Around 30% of abortion seekers who went to what they believed to be trained providers (i.e. doctors, trained nurses/midwives, LHVs/LHWs), experienced some complication.

**Treatment**

In the 2002 Karachi community study out of 25 women with PACs, women sought doctors at clinics for treatment most often; only two sought treatment at hospitals, and one from a dāi. However, in an earlier community study, there was a PAC rate of 68.5% (predominantly fever and heavy vaginal bleeding) for which 27.9% of women were admitted to hospital for more than 24 hours. According to Rahat et al. (2003), women did not quickly seek treatment for perceived PACs, such as heavy bleeding. Septic abortions were often endured without timely medical intervention being sought. Most community-based studies did not give any information pertaining to treatment for complications, data on long-term morbidities, or on mortalities associated with unsafe abortions.

Out of the 144 IAS women with complications, just over 80 per cent (n= 116) of them sought treatment, half within three days of the complication being known. Among those who did not, cost (43%) and perceived lack of importance (28.6%) were the main reasons. Over half the women who sought treatment went to the same place and provider for the original abortion thinking this was where the complication would be “fixed”.

The IAS went a step further than other community studies and inquired about second or third rounds of treatments that may have been sought. In fact, 20 women needed another treatment, and four required a third visit. The study showed that among women whose PACs were not treated, most continued to suffer from symptoms for several months. Of 477 induced abortions, there were 33 cases of morbidity lasting several months.

**Conclusion**

This review shows that it has indeed been possible to conduct research on abortion in communities even as early as 1969 despite the perceived stigma surrounding the subject, often on the part of researchers who may hesitate to do so. Both women and men served as willing respondents in these studies. Nonetheless, the number of community-based studies is too low to capture the diversity of the Pakistani context, and research in Baluchistan and Khyber Pakhtunkhwa is sorely needed.

There are enough community-based studies to give us insights into induced abortion-related behaviour among women which can be further analyzed alongside the larger body of medical research on PACs. The findings discussed above do suggest that abortion rates are difficult to determine at the community level depending on which methodology is used, but that it may be higher than previously thought.

The profile of women who seek induced abortions is somewhat consistent across community studies, revealing a women aged 30 or older, has had five or six pregnancies, has three living children (preferably more boys), and finds it economically difficult to have more children. Only two studies, including the IAS, suggest that if a woman is more literate, she may be more likely to exercise decision-making power leading to pregnancy termination and selection of provider and method. This needs to be explored through further research that examines the impact of women’s education on their decision to have induced abortions.

The literature also shows that a common reason for seeking abortion is contraceptive failure, which may...
mean method failure or possibly misuse by women, as well. The link should be explored more closely through further research. The findings thus far serve as a strong indicator to all FP service providers to improve the quality of their services and follow-up, without delay.

The IAS establishes clearly that women attempt to go to a safe provider, but do not know how to identify one or are misled into thinking the service is better than it is. The 30% complication rate among women surveyed for the IAS is even more unacceptable if so-called trained providers are being used. One positive development is that the use of traditional midwives and folk methods for abortion appears to be on the decline.

A more practical way to categorize existing services and service providers for the purposes of advocacy may be to categorize them as safe, semi-safe, or unsafe providers, based on empirical evidence from communities. Based on complication rates alone, we know that not enough women are using providers that appear to be fully safe as per WHO standards of training and hygiene. Advocacy and programmes need to engage with all types of providers to improve safety standards and encourage safe and low-cost medical abortions and post-abortion care in both public and private sector facilities.

Conflict of interest
There are no conflicts of interest.

Reference