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Healthcare workers’ perspectives on termination of pregnancy and post-abortion care: Insights from Nowshera District, KPK, Pakistan

Muskan Zari Kamal
Final Year MBBS, Khyber Medical College, Peshawar, Pakistan
Corresponding author email: mzarikamal1999@gmail.com

Abdar Ahmad Khan
4th Year MBBS, Khyber Medical College, Peshawar, Pakistan

Zarar Ahmad Khan
1st Year MBBS, Khyber Medical College, Peshawar, Pakistan

Rubeena Gul
MBBS, DCH, MCOMH, DHP, Associate Professor, Department of Community Medicine, Khyber Medical College, Peshawar, Pakistan

Kashif Khalil
MBBS, FCPS Public Health, Associate Professor, Department of Community Medicine, Khyber Medical College, Peshawar, Pakistan

Aziza Alam
MBBS, DIHL, DCH, MPhil, CHPE, Lecturer, Department of Community Medicine, Khyber Medical College, Peshawar, Pakistan

Abstract---Background: Termination of pregnancy (TOP) is an issue that continues to spark debate and controversy worldwide, with HCWs being at the forefront of this discussion. Understanding the perception of healthcare workers (HCWs) towards TOP and post-abortion care (PAC) is vital for reproductive healthcare and can affect the quality of care HCWs provide to patients seeking these services. Aims: This study aimed to explore the perception of HCWs in Nowshera, Khyberpakhtunkhwa (KPK), Pakistan, toward TOP and PAC from three main dimensions, including knowledge, attitude, and practice. Material and Methods: This study was conducted using a qualitative cross-sectional study from August 2022 to March 2023 using a self-administered questionnaire to collect data from a purposive sample of
40 HCWs including obstetricians and Gynaecologists (OBGYNs), and Lady Health Visitors (LHVs) in Nowshera. Results: The data were analyzed in SPSS 2022 using thematic analysis, and the results revealed three themes. The knowledge of HCWs on abortion and PAC was poor, with a mean score of 23.50±9.19. HCWs showed a negative attitude towards abortion, with a mean score of 2.05±1.88. Furthermore, the practice of abortion was adequate. Conclusion: This study highlighted the challenges faced by HCWs in providing abortion and PAC, e.g., limited resources, stigma, and a lack of training. Therefore, support and training of HCWs are essential for improving the quality and standards of PAC and reducing the social and religious stigma toward TOP. Moreover, it is necessary to educate the HCWs on the laws regarding abortion in Pakistan.

**Keywords**---Healthcare workers, pregnancy, post-abortion care.

**Introduction**

Termination of pregnancy (TOP) has long been the topic of discussion in various communities so, it has been defined through various perspectives over time. Unsafe abortion is one of the causes of maternal morbidity and mortality throughout the world. WHO defines unsafe abortion as "a procedure for terminating an unintended pregnancy carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards or both." (1) In Western nations, only 3% of abortions are unsafe, whereas in developing nations 55% are unsafe. (2) An estimated 42 million abortions are performed each year globally, with 20 million of those performed unsafely, which results in the loss of lives of 70,000 women. (3)

TOP without any indications or fatal complications is forbidden by almost every religion of the world. Islamic tradition allows abortion until the soul enters the fetus (4), which is about 40 days after conception, 120 days after conception, or at quickening. (5) Therapeutic abortion for the health of the mother has always been supported, however, controversy exists when it comes to the health of the fetus (Congenital deformities) as well as social reasons like a desire for a male child. (6)

Pakistan has an estimated abortion rate of 29 abortions per 1,000 women of reproductive age. 890,000 abortions are performed annually in Pakistan. (7) Two decades ago, Pakistani Law only permitted TOP for saving maternal life. However, in 1997 an additional clause was added to Chapter XVI, Section 338 of the PPC: induced abortion is also permissible 'before the limbs or organs of the baby have been formed' for 'necessary treatment'(8). This was derived from Islamic law, which stated that induced abortion is only permissible before the quickening stage, which is before the 20th week of gestation. As the law does not clearly define the indications of TOP, it is up to the physicians to elaborate the clause in favor of their patients. (9)
The responsibility of determining the severity of medical conditions lies with the physician, where TOP is allowed if a 'doctor gives advice' to terminate but these perceptions of the severity of the condition and attitudes towards termination of pregnancy may differ among Health care Workers (HCWs). Moreover, they also need to have an insight into the religious and moral dilemmas associated with TOP. Pakistani law permits abortion if the mother’s life is at risk, (10,11) which puts pressure on the HCW while making a decision.

Unnecessary TOP for unwanted pregnancies along with associated mortality and morbidity can be reduced by the provision of adequate post-abortion care (PAC) services which include community and service provider partnership, counselling, treatment of incomplete and complications associated with unsafe abortion, contraceptive and FP services and integration of reproductive health services. (12,13)

The ratio of unsafe abortions is on the rise in Pakistan, specifically in small districts like Nowshera, and also no such studies have been done to understand the perception of HCWs towards TOP and PAC. Through this survey, we aim to identify gaps in knowledge, attitude, and practice of HCWs towards TOP and PAC in District Nowshera, KPK province of Pakistan.

**Methodology**

A cross-sectional study was conducted from August 2022 to March 2023 to assess the knowledge, attitude, and practice of healthcare workers on abortion and PAC in District Nowshera. District Nowshera is in the Peshawar division of the KPK province of Pakistan, with Nowshera City as its capital which is spread over an area of 1748 sq km, with a population of 158540. It consists of three Tehsils (Jehangira, Nowshera, and Pabbi).

All 40 healthcare workers, included private OBGYNs and LHVs, who provide abortion and/or PAC services in Nowshera City, KPK province of Pakistan. A list was obtained from the Health Regulatory Authority (HRA) and via purposive recruitment 13 LHVs and 27 OBGYNs practicing in their private maternity homes were selected.

By applying the WHO formula \( n = \frac{z^2pq}{D^2} \), the confidence level\( (Z) \) is 95%, the margin of error\( (D) \) is 5%, and the prevalence\( (p) \) of 86.2% (10), the sample size was calculated to be 40. By using Purposive sampling, we were able to recruit HCWs who were practicing abortion and PAC services.

Data was collected using a self-administered validated questionnaire (13) after ethical approval from the IREB 767/IREB/KMC. The questionnaire was thematically divided into three broad sections including socio-demographic characteristics of the HCW, Knowledge and practice of HCWs on abortion and PAC, and Attitude of HCWs toward abortion. A self-administered questionnaire with closed-ended questions was implemented with informed written consent. The participants were provided with pre-paid sealed envelopes and were asked to mail them in a week to the researcher.
A total of 19 knowledge questions, 5 attitude questions, and 2 practice questions were asked. The questionnaire included single as well as multiple correct-answer questions. Each correct choice for knowledge was scored as 1. The total score for assessing knowledge was 40. The score was labelled as 80%-100% (Good Knowledge), 60%-79% (Moderate Knowledge), and <60% (Poor Knowledge). Similarly, attitude questions were scored as 2(Agree/yes), and 1(Neutral) out of a total score of 13. The score was labelled as 1-5(Negative attitude) and >5(Positive attitude). Furthermore, the practice was scored as 1 each for whether they practiced abortion or PAC and 2(practiced both), which was further labelled as 1(inadequate practice) and 2(adequate practice) out of a total score of 2.

The data were analyzed using thematic analysis in SPSS. The quantitative data were presented as descriptive statistics, including means and standard deviations and a p-value of <0.05 was statistically significant.

Results

Socio-demographic Factors

All the 40 HCWs who participated in the study were female, with ages 26 years to 61 years (mean age 41+11.47 years). All of the participants were well experienced, with the majority (n = 27) well-qualified specialists in obstetrics and Gynaecology and the remaining (n = 13) with a 2-year qualification of LHV from Nursing Colleges. The average years of experience of HCW was greater than 10 years. The majority of HCWs were married (n=37), including OBGYN (n=27) and LHVs (n=10).

Knowledge of HCWs regarding abortion and PAC

Regarding knowledge of abortion and PAC 6(15%), 17(42.5%), and 17(42.5%) of HCWs demonstrated good, moderate, and poor knowledge respectively. Overall, the knowledge of HCWs was poor with a mean score of 23.50±9.19 out of 40.

Regarding the definition of abortion, only 9(22.5%) of HCWs knew the correct WHO definition of abortion. Furthermore, 27(67.5%), 28(70%), 22(55%), 29(72.5%) and 2(5%) had knowledge about D&C, E&C, MVA, medication use in Abortion(Mifepristone and Misoprostol) and other procedures (Oxytocin and PGF2 alpha) respectively.

Knowledge about abortion laws was moderate 24(60%) of which 14(35%) knew about Isqat-e-Haml (abortion before limbs are formed), and 11(27.5%) knew about Isqat-e-Janin (abortion after limbs are formed). Only 20(50%) of HCWs were aware of the indication of abortion according to Pakistani Law (abortion is permitted to save the life of Pregnant women). 24(60%) of HCWs secured informed consent using a standard consent form, and 37(92.5%) agreed that ethically all patient information regarding abortion should be kept confidential unless requested by the court or the patient herself.

Furthermore, 33(82.5%) of HCWs knew about PAC. Regarding components of PAC 19(47.5%), 33(82.5%), 29(72.5%), 33(82.5%), 19(47.5%) knew community and service Provider Partnership, counselling, treatment of incomplete and
complication of unsafe abortion, contraceptive and FP services and integration of reproductive and other Health Services respectively.

**Attitude of HCWs toward abortion**

Overall, the attitude of HCWs in our study was negative 39 (97.5%), with a mean score of $2.05 \pm 1.88$. Upon further elaboration 26(65%) of HCWs were uncomfortable working in a site where abortion was performed. 18(45%) of HCWs questioned the abortion laws of Pakistan. 10(25%) disagreed with the legality of elective abortion whereas, 27(67.5%) were neutral. Furthermore, all 40(100%) of the HCWs disagreed with elective abortion being used as a form of contraception.

**Practice of Abortion and PAC by HCWs**

The practice of abortion and PAC was found adequate among HCWs in our study. For further information see Table 1

<table>
<thead>
<tr>
<th>S. No</th>
<th>Practice Questions</th>
<th>Answered Choices</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Were trained for safe abortion</td>
<td>Yes</td>
<td>27</td>
<td>67.5%</td>
</tr>
<tr>
<td>2.</td>
<td>Were practising safe abortion</td>
<td>Yes</td>
<td>24</td>
<td>60%</td>
</tr>
<tr>
<td>3.</td>
<td>When they last performed safe abortion</td>
<td>Currently Practising</td>
<td>13</td>
<td>32.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Within the last 6 Months.</td>
<td>8</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Between the last one and two years.</td>
<td>3</td>
<td>7.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Before two years.</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>4.</td>
<td>Methods of Abortion they were practicing.</td>
<td>MVA</td>
<td>8</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medication Abortion</td>
<td>20</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oxytocin Induction</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D&amp;C</td>
<td>17</td>
<td>42.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>E&amp;C</td>
<td>16</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other Modalities</td>
<td>1</td>
<td>2.5%</td>
</tr>
<tr>
<td>5.</td>
<td>Offer Family Planning methods after Abortion.</td>
<td>Yes</td>
<td>38</td>
<td>95%</td>
</tr>
<tr>
<td>6.</td>
<td>Methods of Family Planning</td>
<td>Condom</td>
<td>27</td>
<td>67.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diaphragm</td>
<td>5</td>
<td>12.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oral Contraceptives</td>
<td>32</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Injectables</td>
<td>23</td>
<td>57.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implant</td>
<td>14</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IUCD</td>
<td>33</td>
<td>82.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Natural Methods</td>
<td>9</td>
<td>22.5%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>333</td>
<td>832.5%</td>
</tr>
</tbody>
</table>

(Total does not add up to 100% due to multiple correct response answers.)
Factors Influencing Perception of HCWs

We found that profession had a significant impact on both knowledge and practice of abortion and PAC ($P<0.05$). Similarly, age influenced the practice of abortion and PAC ($P<0.05$). For further information see Table 2.

Table 2: Factors influencing perception of HCWs regarding abortion and PAC

<table>
<thead>
<tr>
<th></th>
<th>Knowledge</th>
<th></th>
<th>Attitude</th>
<th>Practice</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good (%)</td>
<td>Moderate (%)</td>
<td>Poor (%)</td>
<td>P Value</td>
<td>Positive (%)</td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lady Health Visitor</td>
<td>1(7%)</td>
<td>3(23%)</td>
<td>9(70%)</td>
<td>0.034</td>
<td>0</td>
</tr>
<tr>
<td>Specialist</td>
<td>10(37%)</td>
<td>10(37%)</td>
<td>7(26%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29 years</td>
<td>1(2.5%)</td>
<td>2(5%)</td>
<td>5(12.5%)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>30-34 years</td>
<td>1(2.5%)</td>
<td>4(10%)</td>
<td>4(10%)</td>
<td>0.730</td>
<td>0</td>
</tr>
<tr>
<td>&gt;35 years</td>
<td>4(10%)</td>
<td>11(27.5%)</td>
<td>8(20%)</td>
<td></td>
<td>1(2.5%)</td>
</tr>
<tr>
<td>Years of Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 year</td>
<td>0</td>
<td>2(5%)</td>
<td>1(2.5%)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>1-3 years</td>
<td>1(2.5%)</td>
<td>2(5%)</td>
<td>5(12.5%)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>3-5 years</td>
<td>2(5%)</td>
<td>3(7.5%)</td>
<td>3(7.5%)</td>
<td>0.779</td>
<td>0</td>
</tr>
<tr>
<td>&gt;5-10 years</td>
<td>0</td>
<td>0</td>
<td>1(2.5%)</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>&gt;10 years</td>
<td>3(7.5%)</td>
<td>10(25%)</td>
<td>7(17.5%)</td>
<td></td>
<td>1(2.5%)</td>
</tr>
</tbody>
</table>

Reasons women request Abortion services

The main reasons women requested abortion services were to avoid unwanted pregnancy (90%), followed by short inter-pregnancy interval (70%), economical constraint (65%) and partner pressure (65%) respectively. For further information refer to figure 1.
Discussion

The findings of this study shed light on the perception of HCWs regarding abortion and post-abortion care. The key findings reveal a poor level of knowledge, negative attitudes toward abortion, and adequate practice in the provision of abortion and PAC. The observed knowledge gap among HCWs regarding abortion and PAC aligns with a previous study carried out in Zimbabwe (14). In contrast, a facility-based study carried out in the Federal Democratic Republic of Ethiopia showed a good level of knowledge among HCWs(15).

One of the factors that contributed to this was the knowledge of HCWs regarding the legal framework surrounding abortion services. The legal landscape surrounding abortion in Pakistan is complex and varies depending on various factors such as gestational age, fetal abnormalities, and maternal health conditions. The ambiguity of these laws can make it challenging for HCWs to fully comprehend and apply them in their clinical practice.

District Nowshera is a well developed city with a high literacy rate. The HCWs however, are not up to date with international guidelines regarding abortion and PAC. One possible explanation for this knowledge gap can be the limited inclusion
of abortion education in medical and nursing curricula, which has been previously highlighted in certain studies (16,17). Insufficient knowledge about abortion laws among healthcare workers can have far-reaching consequences e.g., denial of safe abortion services, or even the provision of unsafe abortion procedures. Without adequate training and exposure to evidence-based practices, HCWs may rely on personal beliefs or societal biases, which can negatively impact the care they provide.

To address the identified knowledge gaps, it is crucial to implement comprehensive training programs which include evidence-based information on abortion methods, complications, and post-abortion counselling (17). These should cover both medical and legal aspects of abortion. Additionally, a supportive environment for knowledge growth can be achieved through the establishment of clinical guidelines, interdisciplinary collaborations, and regular opportunities for continuing education and professional development of HCWs (16).

Our study showed that specialists were more knowledgeable compared to LHV's (P=0.034) similar to a study conducted in Sindh showing a low level of knowledge among midwives(12). An estimated 41–49% of abortions performed by LHV's, nurses, and midwives are thought to result in complications, compared with just one in 10 abortions performed by OBGYN's (specialists)(18). There is a need for proper knowledge and training of LHV's in providing abortion and PAC services.

However, a concerning finding is the negative attitude towards abortion exhibited by the HCWs which is consistent with a previous research in Egypt(19) that highlights the persistence of stigma associated with abortion, among HCWs. Negative attitudes toward abortion can lead to judgement, stigmatization, and inadequate counselling, which may impede women’s access to safe and compassionate care. These attitudes can further contribute to the overall social and cultural barriers that women face when seeking abortion services(20).

To address these negative attitudes, interventions should be implemented to promote a non-judgemental and patient-centered approach to abortion care. Training programs and workshops can be designed to challenge existing biases and provide healthcare workers with a comprehensive understanding of the ethical and legal aspects of abortion. (21)

Despite the negative attitudes observed, the study indicates that healthcare workers demonstrated adequate practice in the provision of abortion and PAC. This finding is encouraging as it suggests that healthcare professionals can separate personal beliefs from their professional responsibilities. It aligns with research emphasizing the importance of HCWs' commitment to providing evidence-based care and their adherence to established clinical guidelines(22).

One key finding of this study was that the majority of HCWs believed that access to safe and legal abortion was important for women's reproductive health and well-being. However, some HCWs expressed reservations about providing abortion services, citing religious or moral objections. This highlights the need for clear institutional policies and guidelines to ensure that women have access to
comprehensive sexual and reproductive health services, while also respecting the rights and beliefs of HCWs.

Another important finding of this study was that HCWs perceived PAC as an essential component of abortion services. HCWs recognized the importance of providing emotional support, counselling, and contraceptive services to women who have undergone abortions to prevent unintended pregnancies and ensure their continued reproductive health. However, some HCWs reported inadequate training and resources to provide quality PAC services, which underscores the need for improved training and support for HCWs.

The finding that women seek abortion services to prevent unintended pregnancy aligns with previous research in the field, which demonstrates that unintended pregnancies are a significant driving factor behind women’s decisions to seek abortion (23,24). Unintended pregnancies can result from contraceptive failures, inconsistent or incorrect use of contraceptives, lack of access to effective contraception, or other factors. It is crucial to recognize the importance of accessible and effective FP services, including comprehensive contraceptive methods, in preventing unintended pregnancies and subsequently reducing the demand for abortion services (26).

HCWs can play a vital role in improving reproductive health care and therefore, reducing the ratio of these unsafe abortions by offering comprehensive counselling on FP and contraception, providing compassionate PAC, advocating for improved national policies, participating in education and awareness campaigns, and engaging in continuous professional development including training of LHVs and midwives who can provide contraception and preconception services at the doorstep.

The limitations of this study include the small sample size and the potential for selection bias. The small sample size may limit the generalizability of the findings, and the potential for selection bias may have affected the representativeness of the sample. Additionally, the self-administered questionnaire may have introduced response bias, as participants may have answered questions in a way they believed was socially desirable.

This study however, also had some strong points. Nowshera is a well developed area of KPK, Pakistan which lacks in previous research in any field. This regional specificity allowed for insights into the unique challenges and dynamics in the context of Nowshera, which can inform targeted interventions and policy recommendations for this area. Furthermore, due to limited number of private maternity homes in Nowshera, the purposive sample of 40 included almost all HCWs who could contribute to our study, and enabled us to explore diverse perceptions of TOP and PAC. The inclusion of both OBGYNs and LHVs allowed for a holistic approach of the subject, including various perspectives and experiences within the healthcare workforce. These strong points collectively enhance the value and importance of this study and can play a role in the overall improvement of reproductive healthcare services in Nowshera, KPK, Pakistan.
Conclusion

Overall, the findings of this study underscore the importance of addressing the diverse perceptions of HCWs on abortion and PAC. By promoting a non-judgemental and patient-centred approach, clear institutional policies and guidelines, ensuring comprehensive training, continuous education, and addressing stigma and discrimination, HCWs can play a vital role in providing safe, compassionate, and evidence-based comprehensive sexual and reproductive health services to women, in addition to following the laws of Pakistan.

Conflicts of Interest
No conflict of interest has been declared by the authors.

Ethical approval
This study was conducted after obtaining ethical approval from Institutional Research and Ethical Board (IREB) 767/IREB/KMC.

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References


