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Knowledge, Attitude, and Practices of Mid-Level Providers regarding Post Abortion Care in Sindh, Pakistan

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Abstract

***Background**:* In Pakistan, half of all pregnancies are unintended (4.2 million per year); out of which 2.2 million end in induced abortions. Almost 700,000 women seek medical treatment for post abortion complications every year. This necessitates access to quality Post-Abortion Care (PAC) services from skilled providers in Pakistan.

Purpose: This study aimed to assess the knowledge, attitude and practices of Mid-Level Providers (MLPs) regarding PAC services in Sindh, Pakistan.

Method: The study utilized a cross-sectional design. Convenience sampling was used to recruit 116 MLPs, including Nurse Midwives (NM), Lady Health Visitors (LHVs), and Community Midwives (CMWs) from different parts of Sindh. Data were collected using a self-administered questionnaire. Data were analyzed using SPSS version 19.

Key Findings: The participants comprised 47% NMs, 35% LHVs, and 18% CMWs. The median age of the participants was 30 years. Nearly half of the participants (45%) worked in their own private practices. The remainder were almost evenly divided into those working in primary health care centres and those in secondary care hospitals.

The mean score on the knowledge component was 8.9±2.2, from a maximum total of 16. Almost all (98%) the participants had heard about PAC. However, only 29% were aware of the need for a community and service provider partnership as a key element of PAC. Most (81%) of the participants knew about counseling compared with 54% who knew about Manual Vacuum Aspiration (MVA) and 46% about misoprostol. The mean score on the attitude

component was 14.9±2.0, from a maximum total of 21. Various gaps were identified in the practices of MLPs regarding PAC counseling, referral linkages, and in addressing reproductive and health issues.

Conclusion: The findings highlighted the need for providing comprehensive training and mentorship to the groups of midwives about PAC and building strong networks to enable improved referral processes. Moreover, it is crucial to expand this study at a national level to identify the gaps and to plan strategies to promote safe PAC services.

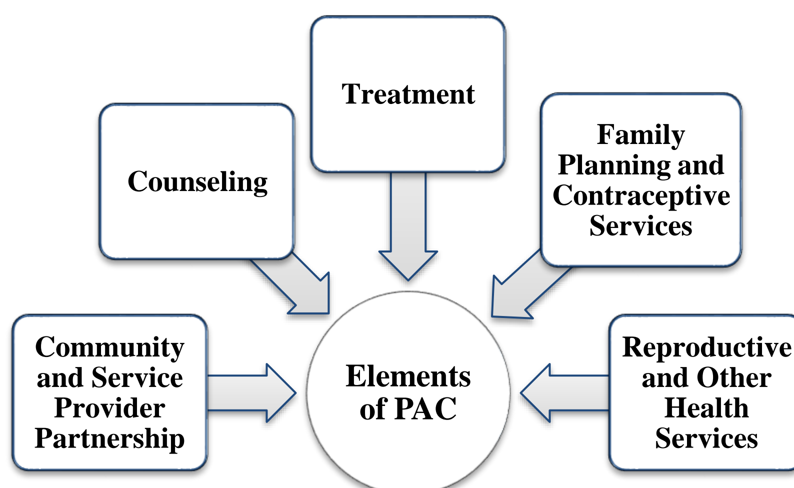
Keywords: *Post Abortion Care, Mid-level provider, Knowledge, Attitude, Practices, Pakistan*

Introduction

In Pakistan, nearly half of all pregnancies are unintended.[1] There is a consistently low contraceptive prevalence rate (35%) and low use of modern family planning methods (26%). As a result, approximately 54% of the women with unintended pregnancies have an induced abortion, a procedure usually performed by an unskilled birth attendant or a mid-level provider (MLP).[2] Consequently, almost 700,000 women seek medical treatment for post-abortion complications at healthcare facilities.[2] Therefore, the International Conference on Population and Development (ICPD) in 1994 called upon all Governments to reduce the need for abortion by providing universal access to family planning information and services.[3]

Post-Abortion Care (PAC) refers to an approach for reducing morbidity and mortality from incomplete and unsafe abortion and resulting complications and for improving women's sexual and reproductive health and lives.[4] The PAC Consortium introduced an updated model of five essential elements to ensure high quality and sustainable PAC services.[4] Figure 1 shows the most recent model of essential elements of PAC.

Figure 1: Elements of Post-Abortion Care (PAC)



According to the World Health Organization (WHO), PAC services can be safely provided by properly trained health providers, including the mid-level cadre, such as nurses, LHVs, and CMWs.[5] The national PAC study has recommended including MLPs in skills development sessions about safe PAC technologies. Training and equipping community-based health workers can help ensure appropriate service availability and accessibility without compromising safety, especially where doctors are few and not readily accessible.[2]

Long acting reversible contraceptive methods such as implants and intra-uterine devices (IUDs) are excellent options for women receiving PAC.[6] Implants can be inserted immediately after vacuum aspiration or on the day a woman takes the first pill for medical abortion. An IUD can be placed immediately after an uncomplicated vacuum aspiration or one week after a medical abortion, when it is reasonably certain the woman is no longer pregnant.[6]

It is estimated that almost 37% women in Pakistan who access MLPs for abortion care services develop complications because the providers are not skilled.[2] Midwives and LHVs are not well trained in the use of modern and safe methods of abortion, like misoprostol, Manual Vacuum Aspiration (MVA), and Electrical Vacuum Aspiration (EVA), therefore, the prevalence of invasive abortion procedures like dilatation and curettage (D&C) remains high.[2,7] Also, public and private health facilities providing PAC often fail to promote Post-Abortion Family Planning (PAFP) and do not have contraceptive methods available to use after providing PAC services.[2] Therefore, many health care providers miss the biggest opportunity to prevent unwanted pregnancies, leaving women trapped in a vicious cycle of pregnancy, abortion, and the unmet need for post-abortion contraception.

Discrimination and the stigma attached to abortion also serve as a barrier for effective PAC. There is evidence that shows that health care providers have negative attitudes towards women seeking PAC and are reluctant to treat these women. [8] These negative attitudes of health care providers prevent women from accessing health facilities, resulting in use of less qualified practitioners and more post abortion complications.[8]

In Pakistan, the current situation requires greater access to quality PAC and PAFP services for every woman. But this access depends upon the skilled health-care providers' ability and willingness to provide efficient and competent PAC and PAFP services to their clients.

Study Purpose

Our study aimed to determine the knowledge, attitudes, and practices of mid-level providers regarding PAC and PAFP.

Methodology

Study design, population, and setting

We used a cross sectional design for this study and collected information at one point in time from the study population comprising mid-level providers, including CMWs and LHVs. The participants were from 11 districts of Sindh province that comprise rural, urban and peri-urban areas.

Sample size and sampling technique

The sample size was calculated to be 116, based on the total number of 6,300 registered MLPs in the Sindh province. Purposive sampling was applied to recruit the participants. A list of 57 practicing MLPs was obtained from a private organization. These providers were approached by phone for enrolment in the study and fifty consented to participate. The remainder of the participants was recruited from the refresher courses periodically organized for MLPs by a government organization. After obtaining permission from the organizers of the refresher training courses, data were collected during the training courses held from July 2015 to November 2015. These refresher courses were based on general content of maternal and child health.

Data collection tool

The tool was developed after extensive review of the published and grey literature regarding knowledge, attitude, and practices of health care providers about PAC and PAFP, including the Pakistan Nursing Council's (PNC) PAC curriculum[9] and the Ipas manual of Women Centered Comprehensive Abortion Care, 2013.[10] The tool comprised four sections: (I) demographic data and facility information; (II) 16 multiple choice questions of knowledge; (III) 21 questions related to attitude, and (IV) 19 questions related to perceptions and practice.

Content validity of the tool

The questionnaire was prepared by the research team in English and it was reviewed for content validity by five experts: a physician, three midwifery faculty members, and a regional Ipas technical advisor. The experts' feedback was incorporated and the tool was then translated into Urdu, to facilitate understanding by the study participants. The translated tool was again sent to the same experts to check for accuracy of the translation.

The pilot testing of the questionnaire was done to check the overall appropriateness, congruence of the content with the objectives of the study, clarity, language, and the time required to complete the questionnaire by the individual participant.[11] The pilot sample was

independent of the final sample and was excluded from the final analysis. No major modifications were made to the tool.

Data collection & analysis

A self-administered questionnaire was given to the participants. The members of the research team were present while the participants filled out the questionnaire to ensure the integrity of the data. Furthermore, the researchers clarified directions, and explained unfamiliar terms but did not influence how the participants answered the items.

Data entry was done concurrently with data collection. All data were double entered, using Epi Data version 3.1; errors were corrected before exporting the data to Statistical Package of Social Sciences (SPSS) 19 version for analysis. For analysis of the knowledge and attitude components we derived themes from our tool with the help of content experts. The themes related to the knowledge component arose from the five domains of PAC consortium model. Each correct response in knowledge and attitude component was given the score of 1. Percentages were calculated for all the correct responses under each theme in which the total scores were considered as the denominators. Descriptive analysis was performed for all the variables. Frequencies and percentages have been reported for categorical variables and mean and standard deviations for continuous variables.

Ethical Considerations

The study was approved by the Ethics Review Committee of the Aga Khan University and voluntary informed consent was obtained from the participants. The participants were free to withdraw anytime during the study.

Results

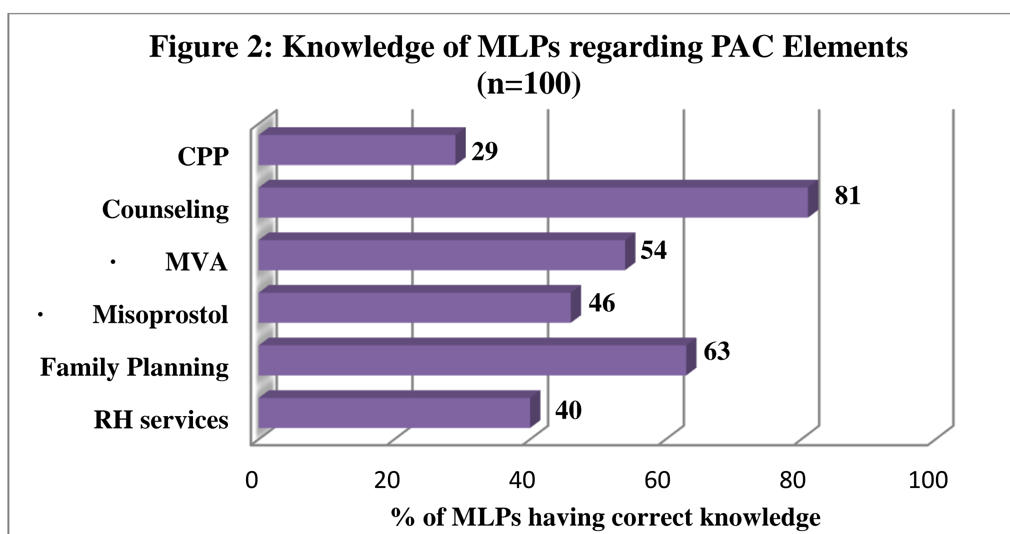
Out of 116 participants, 100 questionnaires were completed, giving a response rate of 86.2%. The median age of the participants was 30 years (minimum 25, maximum 38). Just over half of the participants were married (Table 1), nearly half were nurse midwives, and a similar percentage worked at their own private birthing centers. The median years of experience was 7.5 years (min 5, max 15). A majority (92%) of the participants were primarily trained in the use of misoprostol whereas only 15% had received training for MVA.

Table 1: Demographic Characteristics of the participants

Demographic Characteristics	n=100 Frequency (%)
Marital status	
Married	52 (52.0)
Single	48 (48.0)
Professional Qualification	
Nurse Midwives	47 (47.0)
Lady Health Visitors	35 (35.0)
Community Midwives	18 (18.0)
Work setting	
Private birthing centres	45 (45.0)
Primary Health Care	26 (26.0)
Secondary Care Hospital	25 (25.0)
Others	4 (4.0)

Knowledge of MLPs regarding PAC

The mean score on the knowledge component was 8.9 (min 4, max 14), out of a possible score of 16. We analyzed the knowledge component according to the elements of PAC: a) Community and service provider partnership (CPP), b) counseling, c) treatment of incomplete abortion with misoprostol and Manual Vacuum Aspiration (MVA), d) family planning methods, and e) reproductive and other health services (RH services). Figure 2 shows the scores achieved by the participants on each of the elements of PAC. The majority of the participants (81%) knew about counseling; however, only 29% of the MLPs correctly identified CPP as one of the elements of PAC. The knowledge test included a question about the abortion law in Pakistan, 50% of the participants answered this correctly.



In each element there were critical questions identified by the content experts. Table 2 shows the analysis of the MLPs' knowledge scores for critical questions. Although, 46% of the MLPs correctly answered items about misoprostol, only 27% correctly answered the critical item about the dose of misoprostol to treat incomplete abortion. A similar drop in scores was seen for the area of counseling. Overall, 81% of the participants achieved a correct score, but for the critical question about informed choice, the correct score was lower at 68%.

Table 2: Critical knowledge questions

Elements of PAC	Critical Questions	(%) correct n=100
Counseling	Understanding of informed choice	68 (68.0)
Misoprostol	Recommended oral dose of misoprostol for the treatment of incomplete abortion in the first trimester	27 (27.0)
Manual Vacuum Aspiration	Complication of MVA	64 (64.0)
Family Planning	Contra-indications of Contraceptive Methods	58 (58.0)

Attitude of MLPs regarding PAC

The mean score of the attitude component was 14.9 (min 6, max 19) out of a possible score of 21. The items about attitude were divided into three categories: a) provider's readiness for the promotion of PAC service, b) values clarification regarding PAC, c) considering PAC as a woman's right. Overall, these scores were higher than the knowledge scores, and show that the majority of MLPs (94%) had positive attitudes about PAC services. Sixty per cent of respondents had clear values regarding PAC' and 69% considered PAC a woman's right.

Practices related to PAC

This section of the tool explored the practices of MLPs regarding counseling techniques, strategies used to promote PAC, challenges in providing services, and existence of referral linkages. Table 3 shows the analysis of this component. About two thirds of the MLPs stated that they used guidelines for PAC services, but, none specified details or knew the source of the guidelines they were using. A major gap related to counseling was that only 39% of the MLPs respected a woman's right to privacy and confidentiality.

Almost half of the MLPs promoted PAC services through word of mouth, but only a small percentage used home visits (16%) and women's groups (7%) to promote PAC services. Lack of resources to provide PAC services (55%), opposition of religious leaders (22%), and

stigma associated with PAC (16%) were identified as major challenges in promoting PAC services.

Table 3: Analysis of practice questions regarding PAC

Practice questions	Frequency (%) n=100
Use of PAC guidelines	67 (67.0)
Collaboration with other partners	63 (63.0)
Involvement in PAC counseling	
• Husband	64 (64.0)
• Mother in law	8 (8.0)
• No one	10 (10.0)
• Others	18 (18.0)
Provider approach to collect information from women	
• Force her to share	2 (2.0)
• It's okay if she doesn't want to share	39 (39.0)
• Try to dig out in different ways	49 (49.0)
• Ask her family or friend	10 (10.0)
Intervention for women suffering from gender based violence	
• Provide support and refer her to available support services	52 (52)
• Encourage her to discuss this with her family	19 (19)
• Call her husband and counsel him	36 (36)
• Inform the community leader	6 (6)
• You will not do anything as it is her personal matter	11 (11)
Strategies to promote PAC services	
• Home visits	16 (16.0)
• Community mobilizers	25 (25.0)
• Word of mouth	46 (46.0)
• Women's group	7 (7.0)
• Media/banner/signboards	51 (51.0)
Challenges of Providers	
• Lack of skills and resources for MVA	55 (55.0)
• Lack of referral linkages	14 (14.0)
• Stigma associated with PAC	16 (16.0)
• Religious leaders' opposition	22 (22.0)

Approximately 40 MLPs had encountered severe life threatening complications for which referral was necessary. Table 4 shows the findings about referral linkages. The majority (72.5%) referred complicated cases to public facilities; only 30% reported that they accompanied their clients during an emergency referral. Half of the MLPs reported having an agreement with the referral facilities; however, only a third of them had a written agreement.

Table 4: Referral linkages of MLPs

Referral Process	Frequency (%)
PAC Complications identified (n=40)	
Referred to facilities	
• Public	29 (72.5)
• Private	9 (22.5)
• Others	2 (5.0)
Use of referral slip	35 (87.5)
Accompany client to referral facility	12 (30.0)
Agreement with referral facility (n=51)	
Form of Agreement	
• Written	17 (33.4)
• Verbal	34 (66.6)

Discussion

This study explored the knowledge, attitude and practices about PAC of MLPs in the Sindh province of Pakistan. The results from LHVs, CMWs, and nurse midwives indicated several gaps in the knowledge and practices of these MLPs; but the majority reported positive attitudes towards PAC.

In the knowledge component most of the MLPs knew about counseling, but knowledge about CPP was the lowest scoring area. This is a cause for concern, since CPP is crucial for strengthening linkages between the people living in the community, the health workers, and the service providers, as this can help save women from the complications of induced abortion. These linkages can help overcome obstacles for obtaining adequate contraceptives and family planning services.[4] A similar finding was reported in a Nigerian study, which highlighted that concealed abortion practices at the community level make safe abortion services and contraception inaccessible to women, hence, endangering women's lives during emergencies.[12]

The lack of linkages was reflected in the practices of MLPs regarding referrals, since only half of the participants had agreements with a referral facility, out of which only 33% had a written agreement. This may be because of poor knowledge regarding CPP, which hinders MLPs from establishing adequate referral linkages. Furthermore, 38% of the MLPs indicated that the stigma associated with PAC and the religious leaders' opposition were major challenges in promoting PAC services. Therefore, establishing a strong and effective partnership between community members and health care providers is a crucial area requiring urgent attention.

The position statement of the International Confederation of Midwives (ICM) clearly identifies the education of midwives is pivotal in providing competent PAC services for the safety and wellbeing of women.[13] The curriculum of midwives in Pakistan lacked sufficient knowledge and skills related to PAC until 2011. In 2012, the Pakistan Nursing Council revised the curriculum for community midwives and integrated competencies for PAC.[9] However, the curricula for other providers' lacks content about PAC, which may account for lower knowledge scores within the study sample.

Through continuing professional education, the majority of the MLPs knew about misoprostol (92%), but very few knew about MVA (15%). According to a WHO recommendation, the use of medical methods of abortion requires the back-up of vacuum aspiration, either on-site or through referral to another health-care facility in case of failed or incomplete abortion.[5] There is further evidence that continuing education undertaken by the study participants had not provided comprehensive training about PAC. More than half (55%) reported that they lacked competency and resources for providing MVA (55%). A similar finding was reported in the study conducted in Calabar, in which only 18.2% of the providers performed MVA because they lacked competency.[14]

Further evidence comes from the finding that despite knowing about misoprostol only 27% of the MLPs knew the correct dose of misoprostol for the treatment of incomplete abortion. This finding is crucial, as it clearly reflects a gap in knowledge that can lead to inadequate PAC services and be a barrier to safe abortion. Our finding is disturbing but, unfortunately, consistent with a study conducted in Zimbabwe, where 41% of the providers of PAC services did not know the correct dosage of misoprostol.[15]

We found that the majority of the MLPs had positive attitudes about PAC. Nearly 70% were positive about a woman's right to make a decision about abortion and receive PAC services. Almost all were positive about promoting PAC services. This is an important finding that highlights the willingness of the MLPs to be actively involved in PAC services. But this positive attitude needs to be backed by training for providing PAC services. The providers must be equipped with adequate resources so that they can contribute in preventing unsafe abortions and deaths.

One worrisome finding was that only 60% MLPs demonstrated a positive attitude towards values clarification regarding PAC. This can arise from a belief that Muslims oppose

abortion and consider it to be a sin. A study in Uganda found those with a negative attitude towards abortion described it as sinful and, therefore, impossible for them to support.[16] Our findings indicate a need to incorporate values clarification and attitude transformation into continuing education, as this can serve as a means for empowering providers in combating the stigma of abortion and opposition from religious leaders.

We attempted to identify the actual number of PAC services provided by MLPs, but the majority of the participants left this section unanswered. They may have been concerned about the legal implications of acknowledging the provision of PAC services or there may be inadequate documentation of these numbers in their clinics. We also identified a major gap regarding referrals in case of complications. Only half of the participants had agreements with a referral facility and most of them had no written agreement. Lack of a standard referral process can endanger women's lives. Hence, there is a need to establish standards and guidelines on PAC at a national level. A standard formal referral process for women who experience complications is a must.

Only half of the study participants correctly identified the recommended intervention from WHO to provide frontline support and refer clients to appropriate services when women are subjected to sexual violence or abuse. This implies knowledge and practice gaps about the availability of such resources in the health system and the community.[5] Therefore, standards for referral should address situations like sexual violence but also others where specialized services and counseling are needed, e.g. treatment of sexually transmitted infections.[5]

Strengths and limitations of the study

One strength of this study is that it covers a whole province and the participants were sampled from across different districts in that province. However, the study has limited generalizability because of it. Furthermore, the participants were not randomly selected to represent all MLPs in the province. Since the participants were recruited from those attending training sessions, they could have been more motivated than the overall group of practitioners in the province.

Conclusion & Recommendations

A comprehensive PAC training for MLPs, covering all the five elements of PAC, with special emphasis on values clarification and attitude transformation, and dealing with issues

pertinent to violence against women, should be considered. There is a need to provide strong advocacy platforms for MLPs to strengthen their roles in promoting and providing safe PAC services across the country. A platform should be provided for MLPs to build strong networks with other health care providers, including doctors, TBAs (traditional birth attendants), pharmacists, and others, to strengthen referral systems. A systematic and continuous approach, including mentorship as well as monitoring and evaluation needs to be developed that will strengthen and maintain the competence of midwives and LHVs to provide best quality services to women.

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