Enhancement of knowledge and skills of community midwives in Sindh, Pakistan

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Enhancement of knowledge and skills of community midwives in Sindh, Pakistan

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Abstract

With a maternal mortality rate of 276 deaths per 100,000 live births, Pakistan is one of the countries with a large share in the percentage of world’s maternal mortality. As an intervention for the Millennium Development Goals (MDG) 4 and 5, the World Health Organization (WHO) strongly suggests that skilled care before, during, and after childbirth can save the lives of women and newborn babies. One of the interventions to ensure care to mothers and babies by skilled care providers is the capacity building training of Community Midwives (CMWs) aiming to improve their midwifery competency.

One such training intervention was organized in Hyderabad, in the Sindh Province of Pakistan. Forty two CMWs who had graduated from ten districts across Sindh participated in the training; they were divided into 3 cohorts. The training aimed to review the midwifery knowledge and skills of CMWs; introduce them to evidence-based midwifery practices and the concept of respectful maternity care; strengthen their financial management skills, to enable them establish and sustain their birth centers independently; and, most importantly to provide hands on practice under the mentorship of clinicians.
The training started with a pre-training assessment, to assess the participants’ previous knowledge and skills along with a learning needs assessment to facilitate self-directed learning. At the end of 5 weeks, a post training assessment was conducted to analyze the outcomes of this training. The post-assessment showed an increase in CMWs’ knowledge and skills, and they shared that the training had made them more competent and confident.

This training was a significant effort to enhance CMWs’ development, as it was the first of its kind in the country. Through this training, the CMWs were able to review the important midwifery concepts and skills. Moreover, the CMWs recommended internship in the community with a mentor, after their graduation, and inclusion of management of birthing centers through coverage of entrepreneurial skills in the curriculum.

**Keywords**

Refresher training, Community Midwifery Program, Knowledge, Skills

**Introduction**

Each year, approximately 800 women die worldwide from preventable causes related to pregnancy and childbirth, of which 99% of the burden is shared by developing countries. With a maternal mortality rate of 276 deaths per 100,000 live births, Pakistan is one of the countries with a high share of this burden. As an intervention for the Millennium Development Goals (MDGs) 4 and 5, the World Health Organization (WHO) strongly suggests that skilled care before, during, and after childbirth can save the lives of women and newborn babies. Furthermore, evidences also suggest that to reach a larger number of population, availability of Skilled Birth Attendants (SBA) at the community level is highly significant, along with facility based SBAs, for the prevention and prompt management of complications, which can then result in decrease in the mortality and morbidity rates in the country.

Community Midwives (CMWs) were introduced by the Government of Pakistan (GoP) in 2007. The Community midwifery program is an 18 months program, approved by the national regulatory body, the Pakistan Nursing Council (PNC). The curriculum is based on the International Confederation of Midwives’ (ICM) midwifery practitioner competencies, focusing
on the needs, and cultural values and believes specific to the country. Female candidates aged between 16 to 35 years, with a minimum qualification of ten years of schooling, are eligible to apply. Furthermore, the applicant should belong to the community from where she is selected and she is expected to serve within the respective community after graduating. The main objective of the community midwifery program is to train midwives to provide care to low risk clients throughout the perinatal period, assist normal birth, and provide neonatal care in the community.

In Pakistan, a CMW is responsible for improving the health standards by providing maternal and neonatal health care services, preventing diseases, and promoting health. In the curriculum 75% of the time is dedicated to clinical practice in a facility as well as in the community, under the supervision of a clinical preceptor/faculty, whereas the remaining 25% of the time is for theoretical teaching. After the successful completion of the program, by passing the Provincial Nursing Examination (PNB), the CMW receives a license from the PNC, which makes her eligible to work as an independent practitioner in the community.

Currently, most of the CMWs are actively working in communities, but studies from Pakistan have shown significant deficiencies in their training and competency. Two of the factors identified by Renfrew et al., which can affect the ability of a midwife to contribute towards the Millennium Developmental Goals (MDGs) effectively, are the quality of pre-service training and access to continued professional development once they have graduated from the programs. Hence, for catering to the need of midwives for continuous education, one of the interventions is the capacity building training of CMWs, aiming to improve their midwifery competency. Although short trainings on various topics are being offered to CMWs by the government and Non-Government Organizations (NGOs) but a comprehensive continuous education program, including review of midwifery knowledge and skills, with an opportunity for supervised hands on practice and financial management skills, was not being offered to the CMWs; hence, the need for this intervention was there.

The training was a joint effort of the Maternal Neonatal Child Health sector, Government of Sindh, Pakistan (MNCH, Sindh), the United Nations Fund for Population (UNFPA) and the Aga
Khan University (AKU). This paper focuses on the process of development and the execution of the capacity building training, designed exclusively for CMWs in Sindh. Sindh is the second largest province of Pakistan, comprising 23 districts.

**Objectives**

The training aimed to review the midwifery knowledge and skills of CMWs; introduce them to evidence based midwifery practices and the concept of respectful maternity care; strengthen their financial management skills, enable them to establish and sustain their birth centers independently; and, most importantly, to provide hands on practice under the mentorship of clinicians.

**Setting**

The training was organized at the Aga Khan Hospital for Women and Children, Hyderabad, in the Sindh Province of Pakistan.

**Participants**

42 CMWs from ten districts across Sindh participated in the training; they were divided into three cohorts. All of the participants had graduated as CMWs from different midwifery schools of Sindh, and all had an active license to practice, provided by the Pakistan Nursing Council (PNC). Most of the participants’ age was above 25 years. Their experience ranged from 6 months to 3.5 years. Most of them were working in their own birthing centers, whereas a few of them were working in other maternal and child health care centers.

**Training Method**

The training started with a pre-training assessment, to assess the participants’ base line knowledge and skills. For the training assessment, the instrument initially used in a study by Harvey et al. was utilized. Since its first utilization, this instrument has been used in various researches to assess the knowledge and skills of health care providers, with respect to midwifery care, during antenatal, intranatal, postnatal, and newborn care, and infection prevention and control. The tool comprised three sections: a) demographic profile, b) knowledge test, and c) skills assessment checklist. The knowledge test comprised twenty-one Multiple Choice Questions (MCQs), including four true/ false, and the skill assessment section consisted of...
observational checklists on: a) care in antenatal, b) intranatal including infection prevention and control (IPC), c) care during labor and delivery, d) immediate care of newborn, and care in the third stage of labor and immediate postpartum. Skills assessment was done by conducting Objective Structured Clinical Examination (OSCE). In the pre-test knowledge and skills assessment, almost all the participants scored below 50%. Moreover, participants were also asked to list down their learning needs, during the pre-testing.

The training was divided into two sections. Table 1 shows the percentage of time for each section (See table 1).

**Table 1**

<table>
<thead>
<tr>
<th>Training components</th>
<th>Duration</th>
<th>Weightage of time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical content (Knowledge and skill)</td>
<td>1.5 weeks</td>
<td>30%</td>
</tr>
<tr>
<td>Hands on practice</td>
<td>3.5 weeks</td>
<td>70%</td>
</tr>
</tbody>
</table>

Adult teaching/learning principles were utilized throughout the training, such as ice breakers, discussions, lectures, role plays, simulations, demonstrations, group work, case studies, practice sessions, and energizers, which helped the learners to grasp the essential practical and critical concepts of perinatal care.

At the end of 5 weeks, a post assessment of knowledge and skills was conducted with the same instrument used in pre-training assessment, to analyze the outcomes of this training. In the post-training assessment, the participants’ scores ranged between 70 to 80%.

**Preparatory Phase**

A group of experienced midwifery faculty and practitioners was identified to plan and execute the training. The team members were experts in midwifery knowledge and proficient in skills. They also had vast midwifery teaching experience, and most of them were practicing midwives. The initial step in the preparation of the training was a needs assessment. For this, firstly, literature was reviewed by the training team to identify the gaps in the knowledge and skills of CMWs mentioned in recent researches on CMWs and CMW programs. Secondly, a small group of practicing CMWs was interviewed to identify their perceived learning needs and the challenges encountered during their practice as midwives. On the basis of the identified learning
needs, from the literature and from the practicing midwives interviews, a comprehensive training program was designed by the training team, including the theory and the practical aspects.

Several meetings were held by the training team members to finalize the content of the training. A facilitator manual was developed for the training team, summarizing the content and strategies; along with this a manual for the participants was also prepared that included content, worksheets, activities, and evidence-based articles. The content was planned to be delivered in English and Urdu, as per the participants’ request. Finally, the clinical placements were explored for participants’ hands on practice, and a memorandum of agreement was signed by the primary and secondary level health care facilities selected for clinical placements.

**Execution Phase**

An inaugural program was arranged to formally welcome and introduce the participants within the group and to the facilitators. An overview of the philosophy of midwifery competencies laid down by the International Confederation of Midwives (ICM) and the Midwifery code of Ethics was given.  

The training was divided into two major categories including review of birth cycle and hands on practice, as mentioned below in diagram 1:
Introduction to Evidence-Based Practices

In Pakistan, most of the CMW training schools’ tutors are used to practicing the traditional teaching learning methodologies and they avoid utilization of adult teaching learning strategies. As a result the students are not able to develop and apply critical thinking and analytical skills.\(^{12}\) Moreover, in this initial training, a didactic mode of teaching and learning is used that halts CMWs’ learning after graduation. To help midwives keep up with the pace of midwifery knowledge and practice in this training program, the CMWs were initially introduced to and encouraged to adopt self-directed learning techniques. Then, they were guided on how to access evidence-based literature on their own. Different midwifery websites were introduced and a list was provided to them for future reference.
Review of Birth Cycle

Module 1: Antepartum Care

In this module, the trainer covered the aims of antepartum care, antepartum history and examination, prescription and interpretation of laboratory investigations, and care of women with minor pregnancy disorders.

1- Antepartum History and Examination

The facilitator gave a question to each CMW, related to antepartum history and asked them to brainstorm “WHY IS IT NECESSARY TO ASK THIS QUESTION FROM YOUR CLIENT?” The CMWs realized that even though they were asking many appropriate questions still they were deficient in rationalizing and analyzing this information. Furthermore, using different case studies, the CMWs practiced history taking and antepartum examination skills, in pairs, under the facilitator’s supervision, throughout. To achieve the competency associated with antepartum assessment, each step of the assessment was demonstrated with a return demonstration, several times, to the CMWs. One of the other strategies which helped them was the provision of a video of antepartum assessment, during the practice session. The CMWs watched the video and, eventually, they were comfortable in performing the skill. Moreover, the CMWs were encouraged to prepare an obstetrical wheel (EDD calculation circle) and use it, in different scenarios, for estimating the gestational age.

2- Laboratory investigations: from prescription to interpretation and management

In the first part of the activity, the facilitator reviewed the underlying concepts of basic investigations with the CMWs. The CMWs were then given clinical scenarios to practice the prescription of investigation. In the second part, they were provided with lab reports, including ultrasound, biochemical reports, BMI, etc., along with the normal ranges, to interpret and discuss care management for the client.

3- Care of a woman with minor disorders of pregnancy

The emphasis of this activity was to review midwifery care related to minor discomforts. The CMWs were divided into small groups. They were given case studies and were encouraged to
review the resource material for midwifery care. Almost all of them were able to demonstrate non pharmacological midwifery care during their role plays. The CMWs also practiced identification of high risk clients through these case studies.

Module 2: Intra partum Care

In this section, the CMWs were sensitized to the immediate need of non-medicalized care during intrapartum. Their prime focus was on maintaining normality during labor and birth. The CMWs reviewed the theoretical aspects and the related skills of intra natal care. In addition, they reflected on their experiences and practices related to labor and delivery, to improve the quality of care.

1- Intrapartum history and examination

Being skillful in taking a quick history and reviewing the records during the intrapartum period is an essential competency for midwives. The CMWs reviewed and practiced this skill, in pairs, in the skills lab.

2- Intrapartum monitoring through the partograph

In this activity, partographs were provided to all the CMWs, with several case studies of normal and abnormal labor, to practice and develop the plan of care.

3- Positioning during labor

The CMWs practiced different birthing positions pretending to be clients and care providers. They also retrieved birthing positions poster from Royal College of Midwives (RCM) website showing different birthing positions and kept it as a teaching resource for their clients.

4- Birthing techniques

The facilitator simulated assistance during the second, third and fourth stage of labor. The critical points noted by the CMWs were discussed in great detail, including: assisting birth with the hands-off technique, delivery of the placenta with the Active Management of Third Stage of Labor (AMTSL) technique, examination of the placenta, estimation of blood loss and management of waste and soiled material. Additionally, the CMWs also watched a video of birthing techniques and practiced the skills along with the facilitator.
5- **Episiotomy and its repair**

Firstly, the do’s and don’ts of episiotomy and its repair, along with its indications, were discussed with the CMWs. Then, the facilitator demonstrated the episiotomy and its suturing on a sponge, and encouraged them to practice it.

**Module 3: Postpartum care**

In this segment, the CMWs reviewed the concepts of immediate and routine postpartum care.

1- **Postpartum assessment**

Postpartum assessment, whether it is immediate or routine, is very critical for the client. A holistic approach in postpartum assessment was demonstrated to the CMWs, followed by a practice session, in pairs, in the skills lab. Different blood loss estimation strategies were demonstrated to the CMWs and the feasibility of each technique was discussed in groups.

2- **Postpartum care**

The CMWs performed role plays on the postpartum care of mothers and newborns, in which they highlighted the important aspects of care and the management of minor problems of the mother and baby. The CMWs also practiced providing health education on hygiene care, nutrition, rest, medication, and follow up to the mother. In the sequence of fostering normality, the CMWs were also introduced to the concept of skin to skin contact, attachment, and bonding during the first hour of life. The skill was demonstrated via an insightful animation, followed by discussion.

3- **Breastfeeding**

The CMWs were divided into two groups; one in favor of bottle feed and the other in favor of breast feed. A debate was then generated about breastfeeding versus bottle feeding. The CMWs were able to cover a majority of the points related to the topic, such as benefits of colostrum, bonding and attachment, cost effectiveness, etc. Next, the CMWs watched an animated video on the breast feeding technique and practiced the technique in pairs.

**Module 4: Newborn Care**

This section focused on the review of basic concepts of newborn care.
1- **Newborn examination**

In immediate newborn assessment, the facilitator began by discussing knowledge related to the normal adaptation of newborns to the extra uterine life. This helped them change their out dated practices of slapping the babies immediately after birth to make them cry, thus inhibiting the physiological processes. Although almost all of the CMWs were able to recall the components of Apgar scoring, still, many of them were not comfortable in estimating the Apgar score when given a scenario or on an actual baby. The CMWs practiced the skill, initially, through an online game and then on an actual baby. Furthermore, the CMWs reviewed the systematic approach of head to toe examination of the newborn. The normal parameters of anthropometric measures were then reviewed, followed by a pictorial review of the abnormalities that can be encountered by CMWs during newborn assessment. The CMWs also showed interest in first aid management of congenital abnormalities.

2- **Newborn care**

Additionally, the CMWs were also introduced to the recent advances in cord care, and the prevention of infection through the application of chlorohexidine. Next, the CMWs reviewed the immunization schedule for the newborn, in a large group. Moreover, they worked in pairs and then presented a brief description about each vaccination in the Expanded Program of Immunization (EPI) schedule.

*Module 5: Basic Emergency Obstetrics and Newborn Care (EmONC)*

The Basic Emergency Obstetrics and Neonatal Care (EmONC) review was offered to the CMWs, based on the learning needs identified during pre-testing. Moreover, during the training sessions, the CMWs identified the difficulties that they faced in managing complicated cases. Hence, one of the aims of the training team was to enhance the CMWs’ knowledge and skills in identifying the deviations from the normality, providing basic first aid, and generating referrals.
1- **Post-Partum Hemorrhage**

This session started with a review of the steps of AMSTL and the CMWs were allowed to demonstrate the skill in a large group, where the facilitators assisted them. This activity was conducted based on the participants’ feedback that they never updated and kept emergency supplies separately. During this activity, the CMWs were encouraged to select items and medicines required during PPH management. This helped them internalize that the availability of an emergency box is important to prevent delay in providing care. This part of the session also focused on practicing some critical life-saving skills, like basic resuscitation skills and specialized maneuvers. A PPH management movie was also shown to the CMWs and then they were divided into small groups to practice the drill. Each participant got ample opportunity to practice.

2- **Hypertensive disorders during Pregnancy**

This component aimed to develop the skill of recognizing hypertensive disorders that are also a major cause of maternal mortality. CMWs should be able to identify abnormal blood pressure during the perinatal period and also classify the client’s risk factors during history taking. The session focused on the participants’ need to recognize abnormal diastolic readings and to carry out protein urea analysis on the urine dipstick, to enable them to distinguish between mild, moderate, and severe pre-eclampsia. Moreover, an overview of the components of the Pre-Eclampsia Toxemia (PET) profile was also given. The skill section was based on developing their competency in preparation and safe administration of Inj. MgSO4 to eclamptic women, using the WHO protocol.

1- **Puerperal sepsis**

This session mainly focused on the assessment and prevention of puerperal sepsis, by practicing the principles of infection prevention and control, through a drill.

2- **Prolonged and Obstructed Labor**

This session was further divided into two parts: The first session focused on the identification of mal presentation and positions. The CMWs expressed that they often faced difficulty in detecting
mal-presentations and mal positions, due to which prolonged and obstructed labor often remained unrecognized. The goal of this session was to improve their assessment skills in detecting deviations. A didactic session was conducted using various mannequins and models of Per Abdominal (PA) Examination and Vaginal Examination (VE). The CMWs were allowed to feel the different presentations through the PA examination. Moreover, VE skills were revised while teaching malposition.

The next session was based on using partographs. Then, the CMWs were given several abnormal case studies, followed by questions, to enhance their critical thinking and decision making skills, to enable them to pick up signs of complications, manage them and refer them in a timely manner.

3- Obstetrical emergencies

Only three obstetrical emergencies were covered; namely, management of shoulder dystocia, cord prolapsed, and breech delivery. Although these topics were not a part of the needs assessment they were still covered, considering their acuity and importance in terms of prompt management. The CMWs were divided into small groups to practice and manage the scenarios via simulation.

4- Newborn Resuscitation

The guideline of the American Heart Association (AHA) which is also used worldwide for health professionals’ credentialing was used. The CMWs practiced the resuscitation skill through case studies on Lardel’s Neonatlie.

Module 6: Family Planning

The overall purpose of this module was to create awareness about the importance of family planning in controlling maternal and infant morbidity and mortality and also to provide knowledge regarding different available short term and long term methods. The module was divided into two parts: theory teaching and practice sessions focusing on family planning counseling. The counseling skills were followed by practice sessions. Each participant received feedback from the group members and the facilitator, at the end. The current population scenario of Pakistan was shared with the CMWs, followed by an interactive discussion on the impact of
the growing population, the unmet needs of FP in Pakistan, the barriers to family planning, and the participants’ role, as a CMW, in meeting the unmet needs. The Medical Eligibility Criteria (MEC) wheel was also reviewed with the CMWs. After the discussion, the CMWs practiced using the MEC wheel, in different scenarios.

**Midwifery Hands on Practices**

All the CMWs were assigned and rotated in the designated primary and secondary care sites, located in the urban and semi urban parts of Sindh. The facilitator was present for clinical supervision and facilitation. The purpose of extensive clinical exposure in the triage, antepartum, intrapartum, postpartum, and newborn areas was to enhance the competency of CMWs.

The participants maintained weekly log sheets to follow their progress. In order to maximize clinical learning, the CMWs were shuffled, rescheduled, and assigned for extended hours during clinical rotation. All the CMWs got an opportunity to perform the following skills: a) antepartum history taking and assessment, b) intrapartum care, c) postpartum care, d) newborn care, e) vaccination, f) health education, and g) family planning counseling.

Moreover, the CMWs initially observed and later actively participated in the record keeping and the referral process of the assigned client. Some of the CMWs shared that they were able to assist in newborn resuscitation and perform shoulder dystocia maneuvers.

**Management of Birthing Centers through Entrepreneurial Skills**

A one-day workshop on the management of birthing stations was designed for the CMWs, details of which are published elsewhere. The training comprised the basic concepts of marketing, budgeting, micro financing, networking, and decision making skills. The desired outcome of the training was to a) strengthen the CMWs’ skills to deal with the challenges and limitations of operating their own birthing centers, converting them into opportunities, and identifying the better solutions, b) help them gain confidence to manage the facility, c) guide their collaboration with the competitors such as LHV s and TBAs, d) enhance their knowledge regarding the application of appropriate promotion techniques to attract clients, in order to run a successful business, and e) understand the role of stakeholders and liaise with them for beneficial networking and referral mechanisms.
Supplementary Sessions

Infection Prevention and Control (IPC)

Based on the CMWs’ limited knowledge and inappropriate practices regarding IPC, this area was given high importance and was emphasized throughout the training period. Universal precautions and low cost disinfection and sterilization techniques were discussed at great length. IPC was integrated within the skills checklist; and while practicing skills related to antenatal, intranasal, postnatal, and newborn, IPC was marked as a critical point.

Introduction to Basic Computer and Internet Skills

A module for basic computer and internet skills was developed for CMWs. The CMWs learned to operate a computer and use the Microsoft office tools. Moreover, they learned to search for midwifery related resources from the internet. The facilitators provided them with a list of midwifery related websites for future reference. They also helped the CMWs to identify alternatives of personal computers; for example, CMWs with android phones practiced searching the web on their own mobile phone. Hence, a sincere effort was made to introduce the CMWs to ICT.

Reflective practices

The facilitators introduced the concept of reflective practice and its importance in midwifery profession to the CMWs during the initial weeks of the training; often, such important topics are left to the final part of training. The components and the types of reflection were discussed in detail with the CMWs. The facilitators ensured availing every opportunity to encourage the CMWs to practice reflections and provided them with feedback on it. This activity helped them to learn about reflection and it also emphasized that they adopt reflective practices as a mean for personal and professional growth in their lives. Throughout the training, the facilitators made the CMWs practice their reflective writing skills by asking them to write reflections at the end of each day. This made their learning meaningful, as they reflected on the ways in which they could incorporate this learning into practice.
**Evaluation Phase**

Findings from the pre-assessment revealed that most of the CMWs lacked basic midwifery competencies and infection prevention and control practices to provide quality maternity care to women. Hence, throughout the training, essential midwifery competencies were practiced along with the review of theoretical content. The post-assessment showed an increase in CMWs’ knowledge and skills, and shared that the training had made them more competent and confident.

**Participants’ Feedback**

Overall, the CMWs commented that they found the training content very useful and applicable in their professional practice. The majority of them commented that they learnt more during these five weeks than in their 18 months’ training. They expressed that a practical approach, based on case studies and scenarios, was used to teach theoretical content related to the normal child bearing cycle, abnormal conditions, and financial skills. This helped them understand its application in a real setup and has boosted their confidence to run their workstation independently and in a better way. The CMWs shared that they got ample opportunity to practice during the clinical and that further polished their competency and enhanced their confidence to practice independently. Overall, the CMWs admired their mentors. Unanimously, almost all the CMWs thanked the organizers for providing them this learning opportunity.

**Challenges**

The major challenge that the facilitators encountered was the impolite and harsh attitude of the CMWs. Their ungentle way of dealing with the clients resulted in hesitancy by the clinical staff to facilitate the CMWs during the clinical rotation. The facilitators had to devote a lot of time and efforts in liaising with the clinical staff, along with continuously reinforcing the principles of respectful maternity care in the CMWs, as well as continuously counseling them to change their behavior and attitude towards their clients.

The CMWs’ attitude towards learning something new and implementing it within the time frame, under supervision, was the biggest challenge during the initial weeks. This challenge was overcome with the facilitators’ persistent inquiries, acknowledgement of the CMWs’ intellectual capacity, and ongoing self-reflection exercises.
The CMWs had various levels of competencies; from average to very low. Therefore, it was a great challenge to accommodate all of them as one cohort. The facilitators had to devote a lot of time in clarifying the misconceptions and polishing the CMWs’ skills.

The diversity in the group was very challenging, but the facilitators tried to capitalize on it. However, some of the CMWs had brought a baggage of conflicts from their original areas and that was reflected in and hindered the learning environment during training. As a result, team building amongst CMWs was difficult; but the facilitators used a variety of strategies to encourage and enhance teamwork.

Many of the CMWs were married and had children. The length of the training, that is five weeks, led to lots of issues for the CMWs. The facilitators faced constant challenges to sort out the concerns to retain the participants’ motivation and inspiration for the training.

Moreover, it was very apparent that the CMWs with their own birthing centers were much more motivated for learning during the training.

**Discussion**

It was apparent from the pre training assessment of knowledge and skills that the CMWs lacked adequate knowledge and competence to practice as independent practitioners; hence, midwifery education in Pakistan requires great attention to reach the level of ICM standards. Harvey et al. conducted a study in 2002 to assess the knowledge and skills of SBAs in five countries including Benin, Ecuador, Jamaica, Rwanda, and Nicaragua. The study findings revealed that the skills score was lower than the knowledge score, and there was a theory practice gap among the SBAs.\(^1\) Therefore, time invested in strengthening the theoretical knowledge and hands on practice, by attaching CMWs with midwifery practitioners during such trainings, can increase the competence of the CMWs and increase the uptake of services by the community.

It was reported in a study that refresher training of midwives, particularly training quality, influences midwives’ confidence and practice.\(^1\) Similar findings of a study on training of CMWs suggest that to have an impact on the maternal and child health service utilization in the communities, it is important to enhance health care providers’ education.\(^1\) Hence, recommendations can be given to the donor agencies and governmental organizations to invest in the follow-ups of the training programs to monitor the effectiveness of the trainings and also to
reinforce the implementation of the learning imparted during the training. Follow-ups can be done via using a telephonic questionnaire, after a short time, when they are back to their workplace. This is important, as evidences from the literature show that trainings, monitoring, and supportive supervision to skilled care providers have shown a decline in the MMR of countries like Malaysia and Sri Lanka.\(^\text{16}\)

Lastly, small scale business skills training should be a part of the CMW curricula. Rehman et al. also suggest that the sustainability of the CMWs’ programs depends on the provision of finances by the community and the government.\(^\text{17}\)

**Limitations**

The participants had to leave their work set-ups to attend the three weeks intense face to face training; therefore, they had a feeling of dissatisfaction because their clientele was affected. Hence, in future, the training duration needs to be revisited and opportunity for on-job continuous education sessions should be planned.

Due to more emphasis on midwifery theory and skills, the facilitators felt that some of the areas were not covered in-depth; such as, utilization of midwifery evidences into practice, respectful maternity care, and alternate pain management strategies. Therefore, short trainings and workshops should be organized to strengthen these concepts.

**Conclusion**

The training was a significant effort to enhance CMWs’ development, as it was the first of its kind in the country. Through this training, the CMWs were able to review the important midwifery concepts and skills. The most effective part of the training, as verbalized by the CMWs, was the hands on practice opportunity in primary and secondary health care setups. The CMWs recommended internship in the community with a mentor after their graduation, and inclusion of management of birthing centers through coverage of entrepreneurial skills in the curriculum.

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Conflict of Interest
The authors declare that there is no conflict of interest.

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