Challenges Faced by Healthcare Workers in Rural Punjab of Pakistan: A Qualitative Study

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ABSTRACT

This exploratory-qualitative study aims at improving the mother and child health, with the objective to understand the views of women about community midwives (CMWs) and lady health workers (LHWs) compared to traditional birth attendants (TBAs) in district Layyah. 30 in-depth interviews with the respondents not only provided an insight of pregnant women and mothers regarding healthcare workers' services, but also highlighted the motivation, work environment and proficiency among the field health workers. The study showed that CMWs and LHWs are inadequately deployed in their geographical area. Women are mostly unaware of their existence, even if aware; may lack trust in them. The majority of women do prefer the deliveries at home because TBAs are the only affordable and accessible community-based option available to them. Some key reasons including financial, lack of trust and a fear of being mishandled by untrained CMWs resulted in the nonutilization of health facilities for maternal healthcare. The awareness regarding motivation and commitment of the CMWs and LHWs is extremely important at the moment to remove the reservations of the community and gaining their optimum confidence. The real causes of the existing unproductive rural health program are serious structural weakness, poor pay-scales and lack of official attention.

Keywords: Gender, Health Policy, Health Promotion, Healthcare Workers, Maternal and Child Health

INTRODUCTION

Background

Each year, around 4 million newborns die in the first week of life worldwide^{1, 2} and an estimated 529,000 mothers die due to pregnancy-related causes^{2, 3}. In low and middle-income countries many deliveries still occur at home and without the assistance of trained attendants⁴, ⁷. It has generated serious concern since women who develop life-threatening complications during pregnancy and delivery require appropriate and accessible care. A recent review reported that around 20-30% of neonatal mortality could be reduced by implementing skilled birth care services⁸. In Pakistan although there is some progress in achieving Millennium Development Goals (MDGs) 4 and 5 targets, but it seems difficult to achieve these targets⁹. Maternal mortality rate dropped from 550/100000 live births in 1990s to 276 in 2006-7, but still high for MDG target of 150/100000¹⁰. One of proxy indicators to decrease maternal mortality rate is the percentage of deliveries conducted by skilled birth attendance. Women living in the rural areas do not have access to the services of skilled birth attendants. They have no options other than traditional birth attendants to get obstetrical services.

A national program of Maternal, Neonatal and Child Health (MNCH) was launched in 2005 in order to achieve the objectives of the national MNCH strategic framework 2004¹¹. An important component of this national program was to train and deploy 12000 community midwives in the country till 2012 to ensure safe deliveries by adequately trained and skilled birth attendant. This way, 4700 community midwives had been trained by December 2011 through National MNCH Program, United Nations Children's Fund (UNICEF) and United Nations Population Fund (UNFPA). In this manner, 59 community midwives were trained and deployed in district Layyah to provide maternal care service in different villages.

Skilled versus Traditional Birth Attendants: South-Asian Context

In developing countries antenatal, natal and postnatal experience for women usually take place in communities rather than health facilities and most of them prefer traditional birth attendants⁵. Traditional birth attendants have had many different roles in different cultures but they remain, even today, an important asset for a majority of the world's rural pregnant women. It is beyond doubt that their impact is significant when it comes to empathy, cultural competence, and psychosocial support at birth although many women certainly seem willing to trade this for medical care once it is available. Therefore, many countries like Sri Lanka, Malaysia¹² Bangladesh¹³ Indonesia¹⁴ Nepal¹⁵ and Bolivia¹⁶ targeted on community based interventions such as training and deployment of midwives to provide skilled care, imparting health knowledge and promoting appropriate health seeking behaviors, as a complement to any facility based component. Despite many challenges in community based midwifery services these countries have lowered their maternal mortality rate by increasing uptake of skilled care services at birth through improved human resources^{17, 18}. The model of community midwives is adopted by many countries and has gradually improved maternal mortality situation¹⁹. Studies reveal that distribution of community midwives especially their mode of payment method affects the access of pregnant women receiving a skilled deliver v^{20} . It is also shown by various research studies that success of MNCH interventions depends not only on capacity of health system in country, but also on the factors in the social sectors such as girls' education, good roads and available transport for emergencies^{21, 22, 23}

In India, the government is readdressing the training of skilled birth attendants. The strategies to increase the number of skilled birth attendants included revision of midwifery curriculum, strengthening infrastructure, the revision of the diploma of nursing with greater midwifery content and training of existing lady health visitors and staff nurses with the aim of improving the current knowledge and skills relating to maternal and new-born care²⁴. Afghanistan has trained community midwives since 2002. On the basis of evaluation of community midwives training in 2009, a national accreditation program for midwifery education was developed in order to standardize the education of midwives and to reduce substantial variation in program design. National Midwifery Education and Accreditation policy were developed in 2005, and midwifery schools are required to adopt accreditation policy. The community midwives are trained for 18 months of study and deployed in the field following graduation²⁵.

Organized data on routine health outcomes do not exist in rural Pakistan. The World Health Organization's estimate of maternal mortality in Pakistan (350 per 100,000 live births in 1995) was modeled from projections of deaths of adult females. A study funded by Technical Resource Facility (TRF) in Pakistan showed that significant proportion of trained community midwives had little information about maternal and neonatal health services, and very few community midwives could list all the services required to be given to mothers and newborns. With regard to maternal and neonatal illnesses, graduates only knew the signs/symptoms of severe complications but were not familiar with the identification and management of early stages of complications in pregnant women, postpartum women and neonates. It is the utmost responsibility of the frontline skilled birth attendants to identify the early complications and to decide for timely referral which is vital to reduce maternal mortality in the country²⁶.

Similarly, an assessment by Pakistan Initiative for Mothers and Newborns (PAIMAN) in six districts of Punjab in which district Layyah was also included to assess the competence of community midwives showed that knowledge of community midwives on danger signs of various phases of pregnancy, delivery and postpartum period was very poor. They had very poor knowledge about management of various complications which arise during these phases, and their knowledge about neonatal care was also not satisfactory. Similarly, the performance for skills relating to mother and child health was also inadequate²⁷.

Rationale

The health of mothers and newborns is extremely important for any society. Consequently, the good health of women and children plays a significant role in the socio-economic development of the country. Likewise, it is essential to know the health needs and expectations of pregnant women to the community healthcare workers. In this context, the present study explains the perception of mothers and pregnant women about community midwives and lady health workers compared to traditional birth attendants in the rural areas of district Layyah. Since community has no information about the deployment of community midwives even after passing 4 years; therefore they are still getting the services from traditional birth attendants. This study also aims at exploring the social acceptability, motivation and contemporary issues of community midwives and lady health workers in the area. Therefore, the findings and analysis of this qualitative research would be beneficial for National MNCH Program to remove the existing gaps and address the concerns of community based healthcare workers.

METHODS

A qualitative-exploratory study was conducted including the pregnant women and mothers of children < 2 years, community midwives, and lady health workers in the selected rural areas of District Layyah from October to December 2013. Keeping in view the research ethics, the written informed consent was taken from all the respondents before commencement of the research in the villages. In this context, the confidentiality and anonymity of the written and recorded interviews was ensured to all the respondents.

Sample

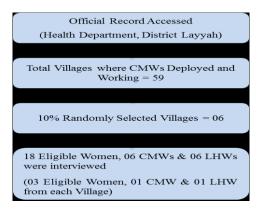


Figure 1. Sampling Strategy for the Research

Overall 30 in-depth interviews were conducted with the respondents till the saturation was secured. In this context, the following sampling strategy (as shown by Figure 1) was used for the research work.

Data Collection and Analysis

In-depth interview was the major data collection technique for this study. This way, 06 community midwives, 06 lady health workers and 18 eligible women were interviewed in the 06 villages according to the inclusion criteria. Interview guides were used for data collection after pre-testing with the other respondents of similar characteristics, and the data was not included in the study. The interview guides included the questions about reasons for using skilled or traditional birth attendants' maternal care services. The notes were continuously checked during the fieldwork and data was transcribed immediately after conducting the interviews. In this context, triangulation was done to enhance the quality, validity and reliability of the research. The interviews were individually focused and conducted in a conducive environment to investigate the personal perspectives very carefully.

RESULTS

Socio-Economic Characteristics of Study Respondents

Target population comprised of women from age groups between 22-35 years and their husbands were the sole bread earners belonging to multiple categories of profession i.e. shopkeepers, street-venders, peasants, brick-kiln workers and the sort. However, an exception was a qualified and one abroad. Higher variability was found in the monthly income ranging from rupees 5000 to 20000. In quite a few cases women also work in fields side by side with their husbands. Their houses presented a typical scene of village where living rooms were shared by many. Similarly, their homes were inadequately and inequitably provided with cooking sanitation, water and electricity facilities. This indicated there was no common basic plinth available to the target population.

Women's Perception about CMWs & LHWs versus TBAs

This study embraces the detailed insight of eligible women regarding community midwives/lady health workers' services compared to traditional birth attendants, and highlights the motivation, work environment and competence of the healthcare workers.

Awareness about Maternal Healthcare Providers

Dai (traditional birth attendant) in the community was found as a main source of awareness about MNCH services, such as 70% of the respondents reported that information about mother and child health in their area is disseminated by the *dai*. Only few of the respondents got information regarding MNCH services from community midwives, lady health workers and health facilities; while less than 1% of the respondents reported media as a source to get the information regarding MNCH services. Data revealed that only 25% respondents were aware of the community midwives in their area. Most of them were well informed about health services like polio campaign, vaccinations and family planning which present their high level of awareness regarding these services. However, according to most respondents the information for maternal and child health was disseminated to them on regular basis by informal health care providers like *dai*.

The role of community midwives was seen dominant only during EPI vaccine campaigns. Although 80% respondents were aware of the presence of government and private health care facilities at different places, however government healthcare institutes like THQs, DHQs and

RHCs had low utilization rates as compared to nearby health houses due to the issues of inaccessibility. Most of them seek medical attention from a lady doctor or *dai* for maternal issues while less than 1% consults a lady health worker or a community midwife designated in their area. The decision to avail MNCH services is also culturally privileged to husbands and mother-in-laws. So, there is a difference of access of information on ground, that is, the population receives their maximum information regarding MNCH not from lady health workers and community midwives, but from the perpetually available and trusted traditional birth attendants of the area.

Perception about Nature of Work

More than 80% of the respondents knew that lady health workers and community midwives were only working for polio campaign, vaccination and antenatal services. Only 20% of the respondents knew that community midwife performs the services for delivery and postnatal care. On the other hand, 100% respondents knew the work (i.e. provision of antenatal, natal and postnatal care) performed by *dai*. 90% of the respondents mentioned that community midwives should not only provide the antenatal services, but also postnatal and neonatal services. 20% of the respondents suggested that community midwives and lady health workers should provide family planning, immunization and gynecological services. According to 90% eligible women, the community midwives should communicate with the pregnant women and mothers on regular basis by educating on the matters of general ailments, environmental, maternal and child health issues.

Social Acceptability

The 90% of community women lacked trust in the competency of community midwives; therefore, they avoid them and do not want to make a strong relationship. Similarly, there is found mistrust among community midwives as they are young and unmarried. According to 90% women, community midwives are new, very young and not experienced; subsequently they do not want to take risk by getting treatment for their maternal or any other health problems. Women have relatively more trust in the other healthcare providers of the area like *dai*. 90% of women have views that, all family members do trust and respect the *dai* since she is an experienced old lady of the village.

In general, the cost of maternal health services and existing socio-cultural barriers has disrupted the health infrastructure. On the other hand, community midwives rely more on referral linkages by lady health workers in the community. Another challenge revolves around the mobility and acceptability of community midwives in terms of geographical, economic and social perspectives in order to initiate a significant change in maternal & child health outcomes.

Accessibility

According to 80% of the respondents, community midwives health houses are within the range of 1 to 2 km from their residence. The dominant factor causing hindrance in accessibility to services of community midwife is the lack of professional recognition as a trained birth attendant; even though women reside within walking distance from community midwife. This way, various factors are associated with the accessibility of community midwives' services among rural women. Community midwives shared a similar view of their convenience to attend the patients close to their health houses. In 25% cases motivation factor among women to get benefited from community midwife as free of cost was also observed. Whereas in 10% of the participants reported that family support or family member being a health worker results in better performance.

Variation in responses was observed in the selection of specific birthing place. The 90% of women chose to have their deliveries at the birthing station followed by the flexibility of being served by *dai* at either the birthing station or at home in case of an emergency. Some women strongly voiced that the deliveries should be conducted at home as it is considered odd for women to go out of their houses. Few women appreciated the idea of community midwives to control maternal mortality. In this perspective, the community elders preferred birthing stations and suggested that community midwife should set it up in her own home which is easily accessible by the community at large.

The 50% women articulated that home-based deliveries are culturally more appropriate. Subsequently, current data revealed that very few visits were conducted by the community midwives and lady health workers to the eligible women and vice versa. This phenomenon exhibits the lack of interest from the side of community midwives, ultimately resulting in the low utilization of their services.

Quality of Healthcare

Most of the people have trust in the experience and wisdom of *dai*. Very few people approach community midwife or lady health worker to get medicine in the case when a child is sick. Community midwife is not well introduced in the locality. Those people who went for the health examination to community midwives, only one odd patient was referred forward. Conversely community midwives hardly visit patients at their homes. Training and skill were found to be the main reasons to visit preferred healthcare providers as 55% responded that they visit the health-care providers because they considered them as better trained and more skilled.

Twenty four hours availability was another reason which attracted the respondents to visit the health care providers as 20% of the respondents reported that they visited them because of continuous availability, while other respondents considered these healthcare providers for being local resident. Low cost of the treatment is another main reason to visit selected healthcare providers. In this way, women replied that community midwives charge them 1500 to 2000 rupees for normal deliveries, while *dai* charges them a minimal affordable fee that is why they do prefer to consult her. However, less than 2% preferred to visit lady health workers and community midwives. Moreover people have certain doubts in the professional competency of community midwives and lady health workers, so they often hesitate to consult them during pregnancy and for the delivery.

Perception about Skills

Appropriate availability of few sterilized instruments and medicines, transport, and receptive attitude of few community midwives were some of facilitating factors in taking advantage of the services provided by community midwives. Only hindrance found was the non-availability of medicines or lack of instruments at the health houses and basic health units. In this context, community women do not value the services of trained community midwives, if they provide services without proper instruments. Women of the study area preferred only *dai* as they were unable to pay for community midwife services, and also had fear to meet her for the economic reason.

The 'three delays' are considered the most important operational factors that result in the reduced utilization of healthcare services. Although, as evident from the responses that the distance to any of the three facilities i.e. primary health facility, community midwife's health house or *dai*'s house is not an issue, but the doubts regarding community midwives and lady health workers of being unprofessional and untrained still persists among the community

women. Hence, the readiness of a trained and skilled health worker at the time of delivery is a great demand by the community.

Restriction from Families

The people of the study area were quite liberal to allow their women to seek medical attention from healthcare providers. So 100% of the respondents were freely allowed to consult a healthcare provider when required for health services. The 80% participants were accompanied by their mother-in-laws to the health houses while 20% preferred to go with their husbands. On the other hand, important obstacle in the performance of community midwives was found to be the family restriction on their accessibility to pregnant women. These restrictions were due to the multiple reasons such as constraints on working outside the home, delivery at night and distance to client's home etc.; however, these family restrictions are not applicable on *dai*. It is only because she is old-age and well known to the community.

Referral System

The 80% of the women responded that they were not referred to community midwives by any lady health worker. They expressed that they got opinion for delivery from their family members like husband or mother-in-law, and they referred them to the *dai*. Only 3 cases were introduced to community midwife to the community by lady health worker, and they collaborated well resulting in generating more clients. This way, lady health workers claim that they have introduced community midwives in the village and explicated their professional responsibilities to them.

DISCUSSION

The women of study area understand the working capabilities and skills of lady health workers. They also know the MNCH Program is beneficial for the entire country, and healthcare services are extremely useful for the society. However, they have no information regarding the health cadre of community midwife in the villages. They are absolutely not aware of the skills and proficiency of community midwives pertaining to MNCH services provision in the community. Therefore, community midwives are not socially recognized healthcare providers as compared to lady health workers⁵. The women of the research area do not trust in community midwives as they are younger and unmarried. So, they are of the view that *dai* is more reliable healthcare provider as compared to this newly inducted cadre.

In a nutshell, women of the research area are more inclined towards *dai* for their strong relationships based on the traditions, trustworthiness and deep social value system. One more issue of community midwife is related to her physical and social mobility in the area at odd times. As they are young women, consequently they cannot go for flung areas alone at night. So, the advantage goes to *dai* who are mostly old-age and experienced women. The people of the community give them respect and acknowledge their healthcare services. This way *dai* have no issue regarding their physical mobility and social acceptance in the community. The community midwives and lady health workers have a conflict by sharing their workload and providing support to each other. Hence, a comprehensive liaison is missing between these two health cadres.

For the success of MNCH initiative, the deployment strategy of community midwives has to be in line with the demands of the community and the professional requirements of the community midwives. The study shows that community midwives and lady health workers are inadequately deployed in their geographical area. However, even in these areas many women are not aware of their existence; even if aware, lack trust in them. This way, the MNCH Program is unable to play an important role to increase the awareness of community by introducing the community midwives in the community. A comprehensive comparison between community midwives with the *dai* can provide the authorities a clear picture of socio-professional status of community midwives. All possible measures for the maternal health awareness and advocacy can be utilized through community resources (i.e. satisfied clients, cooperation by lady health workers and health department staff) and mass media. Consequently, the derogatory attitudes and doubts of the people about the social adequacy of community midwives can be decreased by providing adequate information.

Being ill-equipped, community midwives and lady health workers have problems in the supplies like delivery kits and common medicines to deal with the maternal health related issues at community level⁶. Antagonism by community midwives, unavailability of basic MNCH equipment, limited space to conduct deliveries, lack of self-confidence and refusal from the community are some of the other important factors causing an obstacle to avail the desired MNCH services. Other challenging barriers faced by healthcare workers in the villages of district Layyah are poor service-delivery, insufficient support from inadequate health facilities²⁷, financial constraints, political interference, irregular supplies of life saving drugs, delayed disbursement of remuneration, feeble referral support, lack of financial incentives and career development. The well-timed availability of these items are not only the surety of utilization of healthcare workers' talent and MNCH services, but also the well-being of the whole community.

CONCLUSION

The traditional view, that the majority of women prefer deliveries at home, is not due to a preference, but due to the fact that *dai* (traditional birth attendant) are the only affordable and accessible community-based option available to them. It is because of economics, lack of trust and a fear of being mishandled by the community midwife that resulted in the non-utilization of health facilities for maternal care. The awareness regarding motivation and professional commitment of the community midwives and lady health workers is utmost important at present to eradicate the fears of the community. It is necessary to ensure the practical experience and providing advance medical equipment for community healthcare workers.

The appropriate communication skills are the basic requirement for field healthcare workers, so that they can engage with the community in more confident manner. In this context, it is to be considered by the policy makers of Provincial and Federal Government that National MNCH Program has been unable to meet its leading aim and objectives for which it was planned. Subsequently, the existing rural healthcare program pertaining to MNCH services has extensively serious structural and functional flaws. Besides the poor pay-scales and deficient official focus are other key challenges to tackle this social and managerial issue.

RECOMMENDATIONS

In this context, the maternal and child healthcare program should be revamped at national level. Community Midwives and Lady Health Workers should be provided proper clinics with appropriate medical equipment, medicines, and logistics. The existing issues of finance and job security must be resolved immediately to strengthen the working capabilities of field healthcare workers. The skills and expertise of healthcare workers must be accentuated through seminars, print and electronic media. The activities pertaining to health communication must be supported by the national and international renowned personnel working for healthcare. The referral system in the rural areas has to be reinforced by

addressing the potential gaps. The incentives or any other benefit should be given to the delivered women through healthcare providers in the community.

ETHICAL STANDARDS

This study was conducted after getting approval from the Institutional Ethical Review Committee and after obtaining written consents from all respondents. The authors did not receive any financial support from any third party related to the submitted work. In addition, the authors had no relationship/condition/circumstances that present a potential conflict of interest.

REFERENCES

- [1] World Health Organization. (2010). The World Health Report 2005: Make Every Mother and Child Count. Geneva 2005. Titaley et al. *BMC Pregnancy and Childbirth*, *10*: 43
- [2] Lawn, J.E., Cousens, S., & Zupan, J. (2005).Lancet Neonatal Survival Steering Team: 4 Million Neonatal Deaths: When? Where? Why? *The Lancet, 365*(9462), 891-900.
- [3] Ronsmans, C., & Graham, W. J. (2006). Lancet Maternal Survival Series Steering Group: Maternal Mortality: Who, When, Where, and Why. *The Lancet*, *368*(9542), 1189-1200.
- [4] Mrisho et al. (2007). Factors Affecting Home Delivery in Rural Tanzania. *Tropical Medicine & International Health*, 12(7), 862-872.
- [5] Bell, J., Curtis, S. L., & Alayon, S. (2003).*Trends in Delivery Care in Six Countries. Calverton, Maryland:* ORC Macro and International Research Partnership for Skilled Attendance for Everyone (SAFE).
- [6] Kyomuhendo, G. B. (2003). Low Use of Rural Maternity Services in Uganda: Impact of Women's Status, Traditional Beliefs and Limited Resources. *Reproductive Health Matters*, 11(21), 16-26.
- [7] Duong, D. V., Binns, C. W., & Lee, A. H. (2004). Utilization of Delivery Services at the Primary Health Care Level in Rural Vietnam. *Social Science & Medicine*, *59*(12), 2585-2595.
- [8] Darmstadt et al. (2005). Lancet Neonatal Survival Steering Team: Evidence-based, Cost-effective Interventions: How Many Newborn Babies Can We Save? *Lancet*, *365*(9463), 977-988.
- [9] Millennium Development Goals. http://www.difd.gov.uk/documents/publications/mdgs.pdf
- [10] PDHS (2008). *Pakistan Demographic and Health Survey, 2007-08.* Islamabad, Pakistan: National Institute of Population Studies
- [11] MNCH Cell (2004). *National MNCH Strategic Framework 2005-2015*. Islamabad: Ministry of Health.
- [12] Pathmanathan et al. (2003). *Investing Effectively in Maternal and Newborn Health in Malaysia and Sri Lanka*. Washington, DC: World Bank.
- [13] Micana, M. (2011). Midwifery in Bangladesh: In-depth Country Analysis.
- [14] Daly, P., & Saadah, F. (1999). Indonesia: Facing the Challenges to Reduce Maternal Mortality. *IHSN*; 3(1).
- [15] Manadhar et al. (2004). Effect of A Participatory Intervention with Women's Group on Birth Outcomes in Nepal: Clustered-randomized Control Trial. *The Lancet*, *36*(9438), 970-979.
- [16] O'Rourke, K., & Howard-Grab, M. (1998). Impact of Community Organization of Women on Prenatal Outcomes in Rural Bolivia. *Revista Panamericana de Salud Publica*, 3, 9-14.

- [17] Fauveau, V., Sherratt, D. R., & Bernis, L. (2008). Human Resources for Maternal Health: Multi-purpose or Specialists? *Human Resources for Health 2008*, 6:21. doi:10.1186/1478-4491-6-21
- [18] Bigirwa, P. (2009). Effectiveness of Community Health Workers in the Provision of Basic Preventive and Curative Maternal, Newborn and Child Health Interventions: A Symptomatic Review. *Health Policy and Development*, 7(3), 162-172.
- [19] Hogberg, U. (2004). The Decline in Maternal Mortality in Sweden. The Role of Community Midwifery. *American Journal of Public Health*, *94*(8), 1312-1320.
- [20] Hatt, L., Stanton, K., Makowieka, A., Adisasmita, E., Achadi, & Ronsmans, C. (2007). "Did the Strategy of Skilled Attendance at Birth Reach the Poor in Indonesia?" *Bulletin of the World Health Organization*, 85(10), 774-82.
- [21] The World Bank. (2009). Reducing Maternal Mortality; Strengthening the World Bank Response. Washington DC: The World Bank.
- [22] Haq, Z. Iqbal, Z. Rahman, A. (2008). Job Stress among Community Health Workers: A Multi-method Study from Pakistan. *International Journal of Mental Health Systems. Oct. 28; 2*(1), 15.
- [23] Afsar, H. A., Qureshi, A. F., Younus, M., Gulb, A., & Mahmood, A. (2003). Factors Affecting Unsuccessful Referral by Lady Health Workers in Karachi, Pakistan. *Journal of Pakistan Medical Association*, 53, 521-8. 19.
- [24] Sharma, B., & Mavalankar, D. Bulletin of the World Health Organization April 2008. Achieving Millennium Development Goals 5: Is India Serious? Center for Management of Health Services, Ahmedabad, India.
- [25] Health Services Support Project (2009). Final Phase-one Report. Evaluation of Preservices Midwifery Education Programme in Afghanistan.
- [26] TRF (2011). Assessment of the Quality of Training of Community Midwives in Pakistan. Islamabad: Technical Resource Facility (TRF)
- [27] PAIMAN (2010). Assessment of Community Midwives in Rural Pakistan. Islamabad: Pakistan Initiative for Mothers and Newborns (PAIMAN).