

EMPOWERING MIDWIFERY PRACTICE TO REDUCE MATERNAL AND INFANT MORTALITY IN PAKISTAN.

Surriya Shahnaz, Principal, College of Nursing, Multan Medical & Dental College, Multan
Rafat Jan, Dean, National University of Medical Sciences, Rawal Pindi

Abstract

This study represents the importance of Knowledge, attitudes and Practices (KAP) of midwives towards intranatal care in Pakistan. Midwives play a crucial role in ensuring that pregnant women in labor get appropriate treatment and care during their intranatal period. Midwives are now being called upon to play a key role in maternal and infant mortality rate.

Objectives: To empower the midwives by strengthening their intranatal knowledge and skills and attitude to reduce MMR and IMR in Pakistan. To enhance the competencies of midwives to differentiate normal labor and abnormal labor and effective referral system. To strengthen a midwifery-led care model for practicing midwives to reduce MMR and IMR in Pakistan.

Method: An experimental pre and posttest study design was utilized in this study to assess the knowledge, skills and attitude of the midwives for intranatal care which are crucial for the

Findings: The findings of this study are consistent with literature and some of the research studies conducted internationally on knowledge, skill and attitude of midwives. The current study found that the, the empowering tools of midwives i.e. knowledge, skills, attitude have significant effects on midwifery practice.

Recommendations

The results of this study allow the researcher to make certain recommendations for the promotion of professional knowledge, skill and positive attitude to midwifery practices in Pakistan. Some of the recommendations can also be tested to improve midwifery practice.

Background

Currently, Pakistan has a high rate of maternal and infant mortality and a shortage of Skilled Birth Attendants (SBAs) among South Asian countries. Pakistan is facing difficulty in meeting the Millennium

development goals (MDGs) 4 and 5. Maternal Mortality Ratio (MMR) and Infant Mortality Ratio (IMR) are the most sensitive indicators of women's and infant *health*. Say et. al. (2014) state that 60 million women in developing countries deliver at home without the SBAs. However, the majority of these maternal deaths could be prevented through the intervention of SBAs. According to Pakistan Economic Survey (2011-12) despite being signatory to several international development strategies, including MDGs and commitment to achieve reduction in Infant Mortality Rate and Maternal Mortality Ratio by 2015, Pakistan's performance as compared to other regional countries shows that it still suffers a high infant and maternal mortality and inadequate health care facilities with high population growth. In order, to achieve these goals, the Lalji, Thaver, Kamal (2012) have shown that in Pakistan's Maternal, Neonatal and Child Health (MNCH) indicators are showing a slow progress in achieving MDGs. To achieve MDG 4 and 5, midwives can play a pivotal role in the rural communities for the provision of basic and comprehensive services, complete family planning services, and nutrition interventions. WHO (2008) has endorsed a resolution to confirm the key contribution of the nursing and midwifery professions to health systems and the health of the people they serve. Literature shows the importance of the role of the midwives in reducing MMR and IMR. Pakistan demographic health survey ([PDHS] 2011-12), Afzal and Yousaf (2013) have shown the dreadful picture of Pakistan's reproductive health which indicates that more than 20,000 women die each year due to pregnancy-related complications. Nevertheless, the majority of these maternal deaths could be prevented by the intervention of SBAs. In the same way Bhutta, Darmstadt, Haws, Yakoob, and Lawn (2009) concluded that to reduce the international burden of stillbirths requires action at all levels of the health system. Adeyemo (2013) reports that the attitude and practices of midwives in each hospital differ thus contributing to different experiences of pregnant mothers in developing countries. The nursing and midwifery services are the main pillars of the healthcare delivery system. According to the Citizens for Midwifery (2005) the midwifery model is based on the fact that pregnancy and birth are normal life processes. The care under this model includes monitoring the physical, psychological, and social well-being of the mother throughout the childbearing cycle by midwives. It provides the mother with individualized education, counseling, prenatal care, continuous practical assistance during labor, delivery, and postpartum support. In most parts of the world, midwives are the primary care providers for childbearing women.

The literature review concludes that all women should be offered midwifery care services. Services offered by midwives are in high demand and are seen positively by women, families and communities. The researchers also show the increased satisfaction in women due to

continuity of care, and they report a sense of safety and control with a familiar caregiver. Measureable benefits of continuity of care and outcomes were also reported. On the other hand, in the medical-led models of care, an obstetrician or family physician is mostly responsible for the well-being of clients. In the shared-care models, responsibility is shared among different healthcare professionals.

Finally, it presents the situation of nursing/midwifery leadership and practice in Middle East countries and in Pakistan. Dobson and Lalji (2011) In contrast to USA, UK, Australia, the nurses and midwives in the Middle East and especially in Pakistan lack in training in core competencies (knowledge, skills, and attitude), and leadership skills. The Government of Pakistan and EMRO have some programmes to enhance the core competencies of midwives and to encourage them to take leadership roles. While policy-makers should examine the ways of capitalizing on nursing and midwifery services, as they are an integral part of the overall strategy designed to improve health systems performance. It is crucial that nursing and midwifery leaders must be incorporated in the health policy debate and be more actively involved in the decision-making process. In Pakistan, midwifery programs need to be upgraded by providing in-service continuing education, and chances of career and professional development opportunities.

Research Objectives

- To empower the midwives by strengthening their intranatal knowledge and skills and attitude to reduce MMR and IMR in Pakistan.
- To enhance the competencies of midwives to differentiate normal labor and abnormal labor and effective referral system.
- To strengthen a midwifery-led care model for practicing midwives to reduce MMR and IMR in Pakistan.

Research Questions

1. What is the knowledge, attitudes and practice of Midwives towards intranatal care in Pakistan?
2. What factors can develop the knowledge and skills of midwives for intranatal care to IMR and MMR in Pakistan.

Methodology

An experimental pre and posttest study design was utilized in this study to assess the knowledge, skills and attitude of the midwives for intranatal care which are crucial for the competent midwifery practice in Pakistan. A control group of 120 midwives was selected through systematic sampling technique from four schools of midwifery in Punjab, Pakistan.

Ethical Considerations

Ethical considerations were taken into account during the conduct of study. The proposal was submitted to the University's Ethical Review Committee (ERC) to get approval to conduct study. Institutional written permission was also taken from the Principal, all four Schools of Midwifery.

Data Collection Procedure

The study involved a pretest, demonstration and posttest process with the aim of assessing factors related to intra-natal care practices in Pakistan. Initially, the researcher met with heads of midwifery schools individually and discussed the planning for data collection. The researcher collected the data from each setting mentioned above. After a brief introduction, the researcher explained the study purpose to the study participants and got signed, informed consent from each one. The pre-test containing 30 MCQs was administered to all the participants that took 45 -60 minutes to answer the questions. After pretest a demonstration was given to all participants regarding intranatal care individually for 15 days on birth simulator. Three stations for first, second and third stages of labor were set out. Thirty minutes were given to every participant at all three stations. After 15 days the same above mentioned questionnaire was administered to the participants to check the effectiveness of demonstration.

Results

This was an experimental study, conducted, to determine the knowledge, skill and attitude of midwives in Pakistan. The findings are consistent with literature and some of the research studies conducted internationally on knowledge, skill and attitude of midwives. The current study found that the, the empowering tools of midwives i.e. knowledge, skills, attitude have significant effects on midwifery practice. This Pie chart demonstrates the institutions and percentage of participants from each school of midwifery.

Figure.1.

Figure.2.

Similarly, Figure. 2. Represents the age distribution of respondents which reveals that 2/3 of participants had age range between 20-25 years as 1/3 had 30-35 year.

Figure. 3.

Figure.3. demonstrates that majority of midwives was unmarried while 41% were married and only 2% were divorced.

Figure. 4.

Figure. 4. Corresponds to the experience of all participants. It reveals that 33% had one year, 42% had 1.5 years and 25% had two years of experience in midwifery practice after passing midwifery examination.

Figure. 5.

Figure.5.

The graph of figure.6 shows that there was not a significant change in the scores of pre and posttest except two responses of midwives of Women Christian Hospital, Multan. They all scored more than 50% marks in both pre and posttest. None of the students were failed or got less marks in both test.

Similarly, in figure .6 displays the results of midwives from school of nursing and midwifery, Nishtar Hospital, Multan who had passed the pre and posttest however, there were significant changes in pre and posttest of seven midwives out of thirty. These responses were about fetal movement, causes of increased uterine contractions, variation in uterine contractions,

and psychotherapy during labor pains and knowledge of drugs used in labor. They scored higher in posttest as compared to pretest. The maximum score was twenty eight out of thirty.

Figure.7. Practices

Figure.8.graph displays the results of pretest and post-test of Public Health Nursing School, Nishtar Hospital, Multan. It demonstrates that out of thirty, twelve midwives were unable to pass pretest but there was a significant improvement in their post test results. It shows positive impact of demonstration. However, one of the midwives was unable to pass pre and posttest.

Figure.8. practices

In figure.8. Reveals the results of midwives from school of nursing and midwifery, Muzffar Garh. The highest score of midwives in pretest was 20/30 in pretest six midwives scored less than 50% marks. On the other hand, after taking demonstration, in posttest nine midwives were able to score 80% but all were passed in posttest.

MEAN

Sr #	Pretest	Posttest
A	21.4	24.5
B	14.5666	20.8
C	21.4	22.9
D	17.43333	22.16667

Table.1.

In Table.1. MEAN. Depicts the difference of value in pre and posttest of all four setting of midwives. This table demonstrates that there is a significant change in posttest.

Mean is a measure of central tendency is a single value that attempts to describe a set of data by identifying the central position within that set of data.

SD

Sr.#	Pretest	Posttest
A	1.959592	2.156386
B	4.192719	3.841875
C	1.306395	1.998889
D	2.53881	2.23731

Table .2.

Table.2.Expressed that how much the four SON and Midwifery differ from the mean value for the group. Standard deviation is a measure of the dispersion of data from its average. This table depicts the SD of pre and posttest results of four schools.

Correlation Coefficient

A	B	C	D
0.599515	0.265708	0.538677	0.362865

Table.3.

Table.3.displays the correlation coefficient of four schools. The correlation coefficient is a measure that determines the degree to which two variables' movements are associated. Positive correlation is a relationship between two variables in which both variables move in tandem. In statistics, a perfect positive correlation is represented by 1.Covariance is a measure of how two variables change together. By dividing covariance by the product of the two standard deviations, a normalized version of the statistic is calculated.

CORELATION COEFFICIENT of SON&M,NH,M

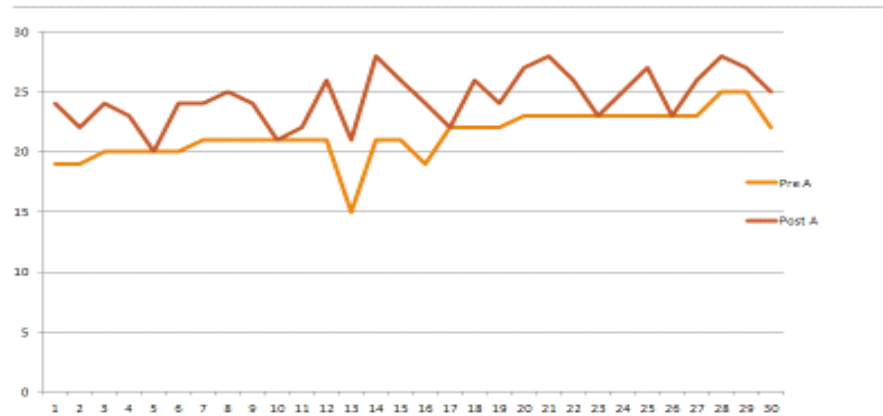
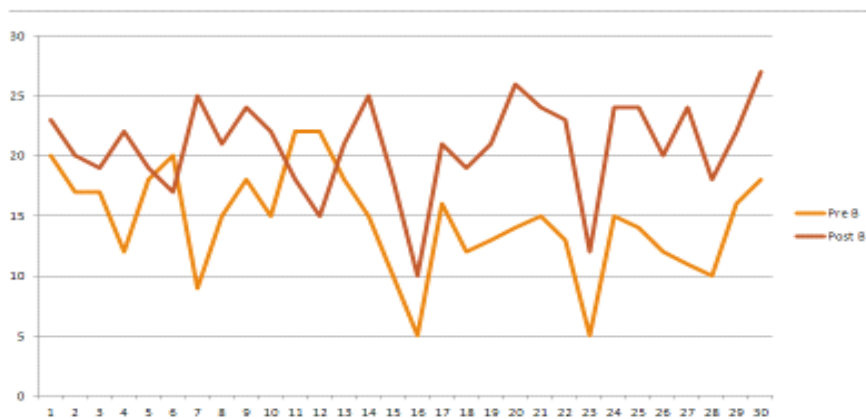


Figure.9, shows the results of SON and Midwifery, NH, M reveals positive correlation of demonstration and posttest.

CORELATION COEFFICIENT of PHNS



This figure 10.reveals the results of PHNS expresses high positive correlation of demonstration and posttest.

CORELATION COEFFICIENT OF SOM, WCH

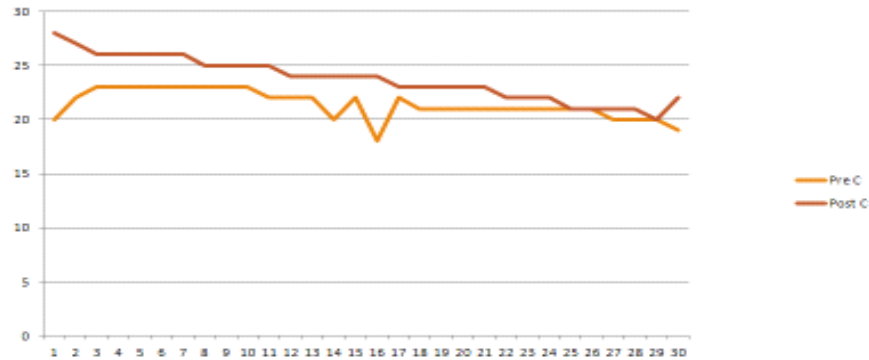


Figure.11.

In figure.11. The results of WCH also reveals positive correlation of demonstration and posttest.

CORELATION COEFFICIENT OF SON, MG

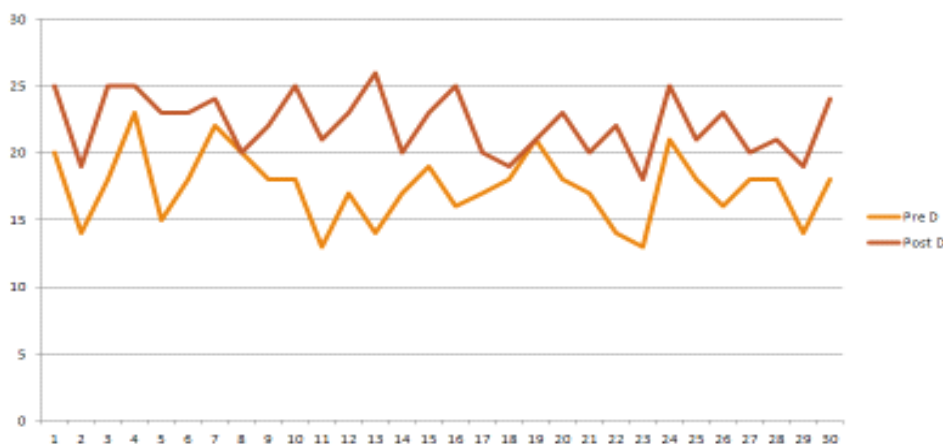


Figure.12

Figure.12.proves the results of SON, MG in positive correlation of demonstration and posttest.

Discussion

The current study is aimed at answering two research questions in term of knowledge, skill and attitude of midwives regarding intranasal care. What is the knowledge, attitudes and practice of Midwives towards intranasal care in Pakistan? And what factors can develop the knowledge, skills and attitude of midwives for intranasal care to reduce MMR and IMR at Pakistan? The discussion encompasses a brief summary of results of the study followed by an explanation of the important findings and relevant literature. The finding of this study can help the government, through the Ministry of Health, to make deliberate efforts to reverse the situation.

In discussion the demographic profile of the participants, the knowledge, skill and attitude of midwives regarding intranasal care are discussed in detail. Moreover, this discussion presents implications for midwifery practice, education, research, institutional administrators, and policy makers, for the up gradation of knowledge, skill and attitude of midwives in Pakistan. It will also offer some recommendations for midwifery leadership and the regulatory body. Finally, it will present the conclusion, strengths and limitations, of the study.

Demographic Profile

The 120 respondents were from the four school of nursing and midwifery, including three government and one private schools in Punjab, Pakistan. Each school represented 25% participation. The demographic profile also identified that all respondents had one and half year diploma in midwifery. This result is in accordance with midwifery training available in Pakistan. For midwives, the diploma in midwifery has been the only program available in the country. (PNC, 2010) However, to compete with the challenges of the 21st century, Pakistani midwives need to acquire higher education, like Bachelors' and Masters' degree in midwifery, and should be familiar with the use of the information technology system. Higher education is crucial for a competent midwife to practice safely to contribute for reduction in MMR and IMR in Pakistan. Moreover, it will bridge the theory -practice gap.

Knowledge Regarding Three Stages of Labor

The findings of this section indicate that midwife from women Christian hospital had the highest score, followed by midwives of the school of nursing and midwifery, Nishtar hospital and Muzffar Garh. Moreover, they had the freedom to refer mothers and newborns to appropriate health care professionals, in case of complication or a need for a caesarean section. The participants also mentioned that the obstetricians visited the women once a day or they were called upon when there was a complicated case. Such policies are vital to help the mother and baby to receive care without delay, which in turn, could reduce MMR and IMR in Pakistan. A level of autonomy over their work could make midwives feel that they are respected and valued members of the health care team. These findings correspond with a study in the USA which indicates that nurses/midwives are attracted and retained at their work because of job satisfaction through autonomy, participation in decision-making, and collaboration with other health care providers. (Kronfol, 2009)

On the other hand, midwives from the public health nursing school had lower score in pre-test however, there was a significant improvement in post-test which indicates the positive effect of demonstration. In this school midwifery practices were medicalized and midwives had less opportunity over the care of mothers and neonates as compared to the above-mentioned school. For example, midwives had to wait for physicians/obstetricians' orders in case of emergency, they could not refer the mother and newborn to appropriate health facilities which could result in delayed interventions and adverse outcomes. The midwives at this school work as an assistance to physicians and their job was to carry out medical orders. Such an environment can result in a decrease retention rate of staff. These results are parallel to the EMRO report (as cited in WHO, 2008) about working environment of midwives/nurses in Pakistan and the Middle East countries, it states that lack of autonomy and involvement in intranatal care at different levels of the health care delivery system pushed nurses and midwives to migrate from the resource country.

Ability to Conduct Normal Delivery

The midwives from the Christian hospitals had highest score in pre and post-test, for conducting normal deliveries. All normal deliveries were conducted in that center by midwives. This provided them maximum exposure and opportunities for enhancing their competence. They

were capable to manage the intranatal care of three stages. They had an updated record of pregnant women to whom they had provided care and conducted normal deliveries, as reported by them. They had a positive attitude toward women, family, and community. This center was found to be women-friendly. The midwives of the school of nursing and midwifery, Nishtar hospital, Multan were at a lower score as compare to Christian hospital, Multan for conduct of normal delivery. It was reported by the midwives of this center that midwifery practices were mainly medicalized and midwives usually work to assist obstetricians during delivery or other related tasks and lack exposure to conduct normal delivery.

Furthermore, this study indicated that midwives of public health nursing school, Multan had the lowest score among all four centers to conduct normal deliveries. They were less competent to provide care during labor and normal delivery, as most of the deliveries in these centers were conducted by obstetricians. The midwives at these centers need to be empowered through provision of more opportunities to work with women during labor and delivery to enhance their competencies. The assessment of knowledge, skills and attitude of midwives, prime indicators were ability to conduct normal delivery, perform episiotomy, provision of intranatal care and newborn resuscitation.

The midwives of Government centers were dissimilar to the role of midwife as described by WHO, PNC and ICM, a midwife must be able to give necessary care to women during labor, to conduct normal delivery and episiotomy. (2008,2010,2013) To assume the role of a competent midwife, the midwives are required to have a certain level of core competency, knowledge, skills, and a positive attitude, that they could apply in clinical settings to provide quality care for the satisfaction of mother, the family and the community, hence, reducing the chances of MMR and IMR.

Newborn Resuscitation

It is noteworthy in this study, that all the midwives of the four settings had the reasonable score for newborn resuscitation. They had sufficient knowledge and skills to provide emergency care to neonates, including handling of birth asphyxia or hypothermia. They were well organized for provision of comprehensive neonatal care. These findings indicate that most of the post-delivery tasks are performed by midwives.

Pakistan is at a critical stage and did not meet the MDGs for reduction of MMR and IMR by 2015. Therefore, there is a dire need to prepare and develop a critical mass of midwifery practitioners. The literature shows that midwives could help the women, neonates, and children in their own community. Previous studies in Chile and Sri Lanka showed the evidences that the development of national midwifery coverage is important measures in reducing maternal and perinatal mortality. (Kwast 1991; Murray 2000; Fernando, Jayatilleka, & Karunaratna, 2003)

Experiences have shown that there is a close association between educational development and quality of health-care services, especially those provided by midwives. Overall, the above mentioned four settings lacked opportunities for career and professional development for midwives. The range of work experience of the respondents was from 6 months to more than 2 years. The majority of midwives expressed their dissatisfaction with the limited opportunity for career and professional development in midwifery. It is apparent that the knowledge and skills of the existing midwives' workforce need to be upgraded; hence, Professional development is important as it plays a key role in the growth of an individual midwife and the midwifery profession. Midwives must be made capable to address the challenges, facing the health care system today for sustainable, safe, and quality care delivery.

Results of the current study revealed that the Christian hospitals were well established, and midwives were well versed and had all facilities needed for maternal and newborn care. In the public health nursing school, Multan and Muzffar Garh midwives did not have proper knowledge, skill and midwifery practices were more medicalized. This could pose a major barrier to the pathway of the midwifery model in Pakistan. The Government, through the Ministry of Health, needs to make deliberate efforts to reverse the situation. The job description of midwives as laid down by PNC could be put into practice and supported by policy makers as a priority agenda for maternal and child health.

Implications

In the context of the findings of this study, the researcher has tried to highlight some implications to improve midwifery practices which could potentially contribute in reduction of MMR and IMR in Pakistan. The findings of this study and, literature presented, have established links among knowledge, skill, attitude and midwifery practices. All these factors are imperative

in the professional practice of midwives. It is therefore, necessary that problems related to these factors should be addressed.

Midwifery Education

To enhance the competence of midwifery tutors, Training of Teachers (TOT) workshops for trainers in Essential Maternal and Newborn Care (EMNC) are vital in all the four provinces of Pakistan. Although improvements have been made, through national and international agencies, and NGOs, but more changes still are needed. It requires joint efforts of nursing/midwifery leadership, regulatory body, policy makers and all the concerned stakeholders to understand the criticality of the issue and to plan for the future of midwifery education in Pakistan. (Maternal, Neonatal and Child Health, 2010)

To update the knowledge and skills of midwives, competent midwifery teachers with a strong midwifery background are important. The training should consist of a competency-based clinical practicum that is supported by ongoing activities to improve clinical practices and quality of care. Such trainings could cover the critical areas to assess the progress of labor, monitor labor, and detect warning signs of potential complications.

Midwifery Research

Looking at the existing midwifery practice and findings in this study, it is suggested that more studies are required to be conducted in all provinces of Pakistan on knowledge, skill and attitude and other factors. These studies will help to measure the degree to which these factors are problematic and to plan and apply appropriate measures to remove the barriers and promote the facilitators towards midwifery practices in Pakistan.

Institutional Administrators and Policy Makers

The study highlights the factors knowledge, skill and attitude that could affect midwifery practices and can have potential implications for clinical practice. The administrators of the four settings and policy makers of the country are required to consider these factors for the improvement of midwifery practices in Pakistan. It was obvious in the findings that the midwives in midwifery school, Christian hospitals had appropriate knowledge, skills, and a positive attitude. The appropriate knowledge, skills, and a positive attitude are powerful tools

that could help midwives in contributing to the reduction in MMR and IMR in Pakistan. The literature presented and the findings of this study have acknowledged potential links between midwifery practices and professional knowledge, skill and positive attitude.

REFERENCES

- Adeyemo, F.O. (2013). Comparative Analysis of Health Institutions on the Attitude and Practice of Midwives towards Pregnant Women during Child Delivery in Ogbomoso, *Journal of Nursing and Health Science*, 1, 3.
- Afzal, U. & Yousaf, A. (2013). *The Lahore Journal of Economics*; pp. 233–247
- Bhutta, Z.A., Darmstadt, G.L., Haws, R.A., Yakoob, M., & Lawn, J.E. (2009). Delivering interventions to reduce the global burden of stillbirths: Improving service supply and community demand. *Pregnancy and Childbirth: Bio-Med Central*.
- Citizens for Midwifery. (2005). *The midwives model of care*. Retrieved May 4, 2009, from <http://www.cmidwifery.org>
- Dobson, S. & Lalji. (2011). Are community midwives competent to practice? Lessons from Pakistan. Retrieved from <http://www.trfpakistan.org>
- Fernando, D., Jayatileka, A., & Karunaratna, V. (2003). Pregnancy reducing maternal deaths and disability in Sri Lanka: National strategies. *British Medical Bulletin*, 67, 85–98.

- International Confederation of Midwives. (2013). Essential Competencies for Basic Midwifery Practice; Strengthening Midwifery Globally. Retrieved from www.internationalmidwives.org
- Kwast, B.E. (1991). Midwives' role in safe Motherhood. *Journal of Nurse-Midwifery*, 36, 366-372.
- Kronfol, N. (2009). Encouraging retention; the first Magnet institution in the region. Retrieved February 26, 2010, from http://www.who.int/hrh/nursing_midwifery/en/
- Lalji, N, Thaver. A.M, Kamal. A. (2012). Maternal, Neonatal and Child Health: Brief of the national maternal, neonatal and Child Health Program. Islamabad, Pakistan.
- Matthews. A, Anne.P, Gallagher.P, Melissa A. (2006). An exploratory study of the conditions important in facilitating the empowerment of midwives: *Midwifery*, 22, 181-191.
- Maternal, Neonatal and Child Health. (2010). Brief of the national maternal, neonatal and Child Health Program. Islamabad, Pakistan: Author.
- Murray, S. (2000). Relation between private health insurance and high rates of caesarean section in Chile. Qualitative and quantitative study. *British Medical Journal*, 321, 1501-1505.
- Pakistan Nursing Council. (2010). Skills and obligations of midwife, Community Midwifery. Curriculum: Islamabad, Pakistan: Author.
- Pakistan Economic Survey. (2011-12). High Infant, Maternal Mortality Rate, Retrieved from <http://nation.com.pk/national>
- Pakistan Demographic & Health Survey. (2012-13). Infant, Child and Maternal Mortality
- Say, L., Chou, D., Gemmill, A., Tunçalp, O., Moller, Daniels, J., Gülmezoglu, A.M., Temmerman, M., Alkema, L. (2014). Global causes of maternal death: A WHO Report.
- World Health Organization. (2008). *Managing Human Resources for Accelerating Reduction of Maternal and Infant Mortality Rate.*

IJSER