

*Original Research Article*

# Knowledge, Attitudes and Practices Regarding Premature Baby Care among Mothers in Community, Lahore Pakistan

Safa Ikram<sup>1\*</sup>, Muhammad Afzal<sup>2</sup>, Muhammad Hussain<sup>3</sup>, Arooj Younis<sup>4</sup>, Shahmeen Shahbaz<sup>5</sup>

## Abstract

<sup>1</sup>BS Nursing, Lahore School of Nursing, The University of Lahore, PO box 54000, Lahore, Pakistan

<sup>2</sup>Associate Professor, Lahore School of Nursing, the University of Lahore, PO box 54000, Lahore, Pakistan

<sup>3</sup>Assistant Professor, Lahore School of Nursing, the University of Lahore, PO box 54000, Lahore, Pakistan

<sup>4</sup>BS Nursing, Lahore School of Nursing, The University of Lahore, PO box 54000, Lahore, Pakistan

<sup>5</sup>BS Nursing, Lahore School of Nursing, The University of Lahore, PO box 54000, Lahore, Pakistan

\*Corresponding Author Email: [takeexclusive786@gmail.com](mailto:takeexclusive786@gmail.com)

The objective of this study is to assess the knowledge, attitude and practices of mothers regarding premature baby care in community, Lahore Pakistan. The study was held in Lahore community for 6 months. In this analysis, a quantitative descriptive cross-sectional design was used. The mothers had a sample size of 150. The purpose of this study is to examine the awareness, attitude and experience of mothers about premature baby care. SPSS version 21 analyzed the results, mean and standard deviation was used to assess mothers' awareness and attitude and practices on premature baby care. The overall experience of the mothers regarding premature baby care was positive. A conducted study helped to assess the knowledge, attitudes and practices of mothers regarding preterm baby care in the community of Lahore. The results of study showed positive knowledge among mothers regarding preterm baby care in community. They showed positive attitudes regarding treatment and prevention of risks in preterm babies but still there is deficiency in their preventive measures and treatments. Therefore, educational programs or health educations must be held in hospitals, health care settings of community in order to provide a large access of knowledge related to preterm baby care.

**Keywords:** Premature, baby care, Knowledge, Attitude, Practices

## INTRODUCTION

During female pregnancies, babies born before 37 weeks of gestation are called 'premature babies. Usually they did not complete the thirty-seven week gestation period. The prenatal birth stages were divided on the basis of a complete gestational period e.g., less than 28 weeks premature, 28 to 32 weeks premature and 32 to 37 weeks are divided as intermediate to premature onset.

Many countries around the world have a problem with prenatal care. Pakistan as a developing country is also giving birth prematurely as a complicating health problem.

If we define the birth rate in Pakistan by a smart percentage, then the Pakistan position will be the eighth in the world. Every year, the Pakistan Preterm Birth Rate is 15.8 percent while the global birth rate is more than 10 percent. Throughout the growing period of the child, there are many important changes in growth especially in the last months and weeks. As the brain structure for solid understanding, lung formation of respiratory functions

and liver for proper blood production (Abraham and Rejiya, 2016).

All of these growing changes usually end in the last weeks of pregnancy to allow the human organs to grow fully. But if for some reason or other causative agents, the baby fails to suffer during normal pregnancy and is born before 32 weeks with high mortality and disability rates. Overweight children can be at risk for many common problems, namely, respiratory problems, difficulty in eating, brain impairment, growth retardation, vision problems, hearing problems etc. Premature infertility is the leading cause of death in the world among children under five. Many causes lead to premature death especially in cases with more than half of income babies born prematurely or less than 32 weeks often do not survive and die due to lack of resources, expensive treatments such as heat treatment especially preterm birth, strengthening support, care basic pre- and post-infection infections and difficulty in breathing (Barros et

al., 1996). A comparison of high incomes rates of preterm births are likely to survive. Several set points regarding early delivery include: history of premature birth, twins, triplets or other repeated deliveries, interval between pregnancies less than six months, pregnancy with in vitro fertilization, uterine problems, cervical or placenta, current history or past smoking, chronic conditions of infection in the body, such as high blood pressure and diabetes, a history of injury or physical trauma. The WHO (World Health Organization) also released a report published in 2012, entitled "Born too soon": it was a global action report on preterm birth adopted by international health organizations. It includes initial prenatal estimates by country percentage. The WHO's primary commitment was to reduce the health risks associated with premature births and to improve the survival rates of premature babies. In addition, the measures and standards of health care treatment also meant improvement (Baltussen et al., 2002). Some of the essential steps involve:

- It is important to work with the members of the United Nations and colleagues working for all newborns: An effective plan to reduce safe deaths was adopted in May 2014 through the framework of the UN Secretary-General's plan for women's and children's health
- It is important to work with the member of the state to support the availability and quality of data collection by prenatal care
- Development of tools and equipment to develop the skills of health professionals and determine the quality of care provided to preterm mothers and premature babies.
- To provide strong international support for the implementation of the WHO guidelines on prenatal health, the main objective of these guidelines was to reduce the adverse effects of pregnancy, including prenatal birth and to obtain points to ensure good pregnancy information for all mothers (Borowiec et al., 2018).

WHO is currently working on two clinical trials known as the WHO ACTION Trials (Antenatal Corticosteroids for Improving output in Preterm's Births) for women who are prone to premature birth

- Current international Kangaroo Maternal Care (KMC) trial (compared to current recommendations for implementing KMC when the child is stable) in Ghana, India, Malawi, Nigeria and the United Republic of Tanzania.
- Implementation of KMC growth research in India and Ethiopia. The trials will assess how steroid injections can be used safely and effectively for women and preterm newborns in low-and middle-income countries (Blencowe et al., 2013).

### **Purpose of the study (Objective)**

The purpose of my study is to assess knowledge, attitude

and practice of mothers regarding premature baby care in the community.

### **Research Questions**

What is the knowledge, attitude and practices of mothers regarding premature baby care in the community?

### **Significance of the study**

This study helped to assess the knowledge, attitudes and practices regarding preterm baby care among mothers in the community of Lahore. Majority of mothers as residents of communities (rural areas) are unaware of premature deliveries and associated risk factors and complications with preterm births especially preterm baby care. More importantly, the anxiety causes negative effects on their pregnancies. More access and information on this topic have minimized the negative consequences related to preterm births.

### **LITERATURE REVIEW**

The study was conducted in Europe by Henrique Barros, Margarida Tavares and Teresa Rodrigues. This study was designed to link an independent association between prenatal care intake and adverse physical effects, measured due to prenatal events or low obesity. Adequate and moderate maternity care (compared to inadequate) was significantly associated with lower maternal risk (OR = 0.20, ninety-five percent CI 0.12-0.32, and OR = 0.35, 95 percent CI 0.23-0.54, respectively) or low birth weight (OR = 0.23, 95 percent CI 0.15-0.35, and OR = 0.31, 95 percent, CI 0.0-0.46, respectively). The adjustment of maternal age, social status, marital status, physical condition and type of hospitalization lower the chance of premature delivery for women who received adequate (OR = 0.18, ninety-five percent CI 0.11-0.28) or central care (OR = 0.35, 95 percent CI 0.23-0.54). Adjustment of maternal weight index, marital status, smoking, pregnancy weight and complications, type of hospital, newborn sex and body condition, high risk of low birth weight loss remaining in girls with adequate (OR = 0.39, 95% CI 0.23-0.65) or intermediate care (OR = 0.47, 95% CI 0.29-0.76). Our findings show that in the past, for people who have free access to antenatal care, the adequacy of the amount of prenatal care has an independent effect on the outcome of the condition, whether or not tested for prenatal conditions or low birth weight infants.

A case-control study was conducted in southern Europe by Montserrat Gómez-Olmedo, Miguel Delgado-

Rodriguez, Aurora Bueno-Cavanillas, Juan Antonio Molina-Font and Ramón Gálvez-Vargas. The importance of prenatal care is controversially associated with the difficulty of establishing it. A national birth control policy was developed and implemented throughout Andalusia (Southern Spain) in 1984. Here, we tend to report the results of an analysis of this health care system in relation to prenatal delivery disorders. The effectiveness of prenatal care was evaluated in the context of 2 case-control studies: Pre-compulsory care (1981-1982) and therefore another six years after the program began (1990-1993). A total of 229 cases and 395 controls of 1981–1982 counts have been filed, with 207 cases and 381 controls of 1990–1993 selected. Maternity care was evaluated based on the number of maternity visits, the date of the main visit, and the yankee composite index that changes body age. Many adjusted levels of constraints and therefore their 95% confidence intervals (CI) were countless. The use of maternity care has improved significantly over time: the number of girls receiving prenatal care decreased from more than 30% to less than 5%, and the number of women starting prenatal care during the 1990-1993 trimester was three times higher in 1981 – 1982.

In 1981-1982, instance control condition reported the particular date of the initiative visit and the complex index were proven to be unrelated to the hazard of preterm birth and the figure of visits demonstrated an important affiliation although a definite course could not be established. In 1990-1993, event control written reported an enlightened and substantial relationship that was mentioned between the figure of prenatal care visits and the one-fourth of the initiative visit and the sufficiency of care establish on the complex indicator. The results propose that the flow of Andalusian programme helps forbid untimely birth. Nevertheless their lower limit criterion need to be brought up to further repress the risk of exposure of preterm birth.

## RESEARCH METHODOLOGY

### Study Design

A descriptive cross-sectional study is designed to figure out the knowledge attitude and practice of mothers regarding premature baby care.

### Sample Size

The population of this study was selected mothers of the community. The target population consists of 150 participants and all were mothers from the community.

### Study setting

This study was conducted in the Lahore community.

### Study population

The mothers were selected for the study population.

### Sampling

Simple random sampling was used in this study

### Research Instrument

A well written structured and adopted questionnaire from the study was used for collecting the data from the participant. After taking informed consent, data were collected from mothers of the community

### Data Gathering Procedure

A formal written letter of permission to conduct the research. Also, an ethical approval was obtained from the author to use this questionnaire and the questionnaire was distributed to mothers of the community.

### Sample size

Slovin's sampling was used to find the sample size of the study population.

Total population is 240

If N=population; n= sample size; E= margin of error

$$n = \frac{N}{1 + (N)(E)^2}$$

$$n = \frac{240}{1 + (240)(0.05)^2}$$

$$n = \frac{240}{1 + (240)(0.0025)}$$

$$n = \frac{240}{1 + 0.6}$$

$$n = \frac{240}{1.6}$$

$$n = 150$$

### Inclusion criteria

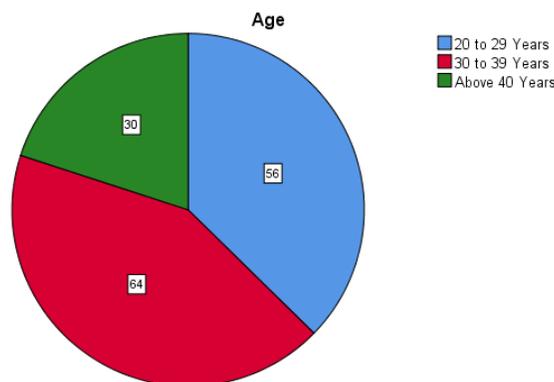
Inclusion criteria included all mothers who were willing to participate in our research study and gave informed consent.

### Exclusion criteria

Exclusion criteria refers to all mother who were not willing to participate in our research study. This segment also

**Table 1.** Demographic Data  
Age of Participants

Age	Frequency	Percent	Valid Percent	Cumulative Percent
20 to 29 Years	56	37.3	37.3	37.3
30 to 39 Years	64	42.7	42.7	80
Above 40 Years	30	20	20	100
Total	150	100	100	



excluded those who were absent at the time of data collection process.

### Data collection techniques

Various families of the community were assessed for the purpose of identifying problems. Assessment including questionnaire, observations, focus groups, interviews.

### Ethical consideration

In this research, ethical consideration was highly preferred. For this purpose, the permission was obtained from the ethical committee of the health care institution before data collection. Permission was acquired by a written approval from the head of the department of Lahore school of nursing in the form of consent. Furthermore, informed written and verbal consent was taken before data collection from participants. Students were given the right of autonomy and nature. The purpose of the study was informed prior to the implementation of any action. The risk related to this study was discussed before. Participants were given the right to leave the study participation at any time. In this case other participants were added for the accomplishment of data information. Participants were informed about the aims of the study and secrecy of the collected data was assured. A written consent was taken from respondents who were willing to participate in this study. All respondents were informed that their participation is highly appreciated and they can participate voluntarily. Participants were taken in

confidence that all the collected information and records remained confidential.

## RESULT AND DATA ANALYSIS

Results and data analysis were taken up through systematic and logical techniques (SPSS) after the accomplishment of the data collection process. This section presents the outcomes of the study

### Profile of the Respondents

#### Demographic Data

Respondents were taken from the Lahore community.

Table 1 shows that ages of mothers were 30 to 39 years (42.7%), 20 to 29 years (37.3%) and above 40 years (20%).

Table 2 show that the educational status of mothers was primarily 48.7%, illiterate 26%, higher 13.3% and middle 12%.

Table 3 show that occupation of mothers was housewife 63.3%, private worker 28.7% and Govt. employee 8%.

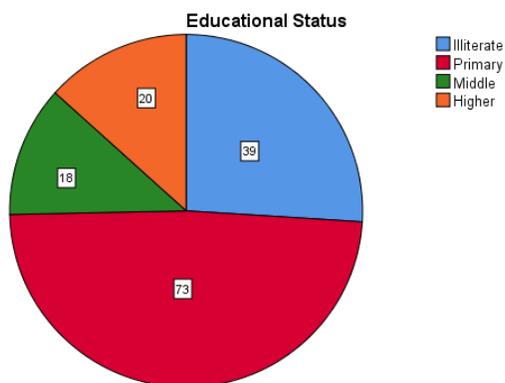
Table 4 show that residence of mothers was rural area 52.7% and urban area 47.3%. (Table 5-7)

## RESULTS

Data was collected from a total of 150 mothers among a community of majority n = 64 age of 30 to 39 years

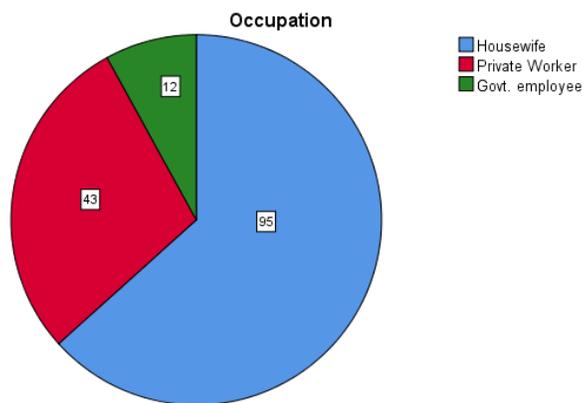
**Table 2.** Educational status of Participants

<b>Educational Status</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Illiterate	39	26	26	26
Primary	73	48.7	48.7	74.7
Middle	18	12	12	86.7
Higher	20	13.3	13.3	100
Total	150	100	100	



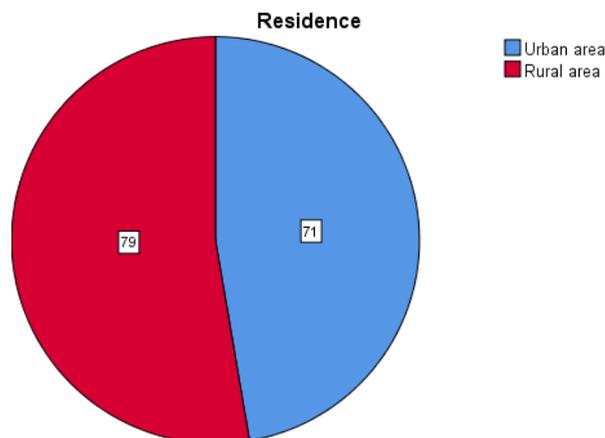
**Table 3.** Occupation of Participants

<b>Occupation</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
House Wife	95	63.3	63.3	63.3
Private Worker	43	28.7	28.7	92
Govt. employee	12	8	8	100
Total	150	100	100	



**Table 4.** Residence of Participants

<b>Residence</b>	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Urban area	71	47.3	47.3	47.3
Rural area	79	52.7	52.7	100
Total	150	100	100	

**Table 5.** Knowledge of the mothers regarding premature baby care

S.No	Knowledge of the mothers	%
1	Preterm babies are born before 32 weeks of gestation?	42.7%
2	Preterm babies require extra care?	48.7%
3	Preterm babies are more immune compromised as compared to neonates?	63.3%
4	Preterm babies are at risk to hypothermia?	32%
5	Extra thermal care is required for preterm babies?	32%
6	Kangaroo Mother Care is for small babies (birth weight <2,000 g preterm babies)?	39.3.3%

**Table 6.** Attitude of mothers regarding premature baby care

Sr.No	Attitudes of mothers	%
1	RDS (respiratory distress syndrome) is a problem often seen in preterm babies. The condition makes it hard for the baby to breathe?	35.3%
2	Hypothermia can increase risk of infections, mortality and for preterm babies increase risk of RDS?	37.3%
3	Preterm babies are at risk of Cord and skin infections, neonatal sepsis?	36%
4	Extra attention to infection prevention and skin care is essential for preterm?	33.3%
5	Hypoglycemia = low blood sugar Increases risk of impairment or death in preterm	34.7%
6	In case of hypoxia Safe oxygen use is preferred in preterm babies?	41.3%
7	Lack of breast milk is a risk factor for necrotizing enterocolitis in preterm babies?	34.7%
8	Hypoxia = low oxygen levels Increases risk of impairment or death for preterm babies, higher risk of RDS and intracranial bleeding?	36%

**Table 7.** Practices of mothers regarding premature baby care

Sr.No	Practices of mothers	%
1	Extra thermal care includes Kangaroo Mother Care, baby hats, blankets, overhead heaters, incubator for preterm babies?	33.3%
2	Extra support for breastfeeding e.g., expressing and cup or tube feeding, supplemented breast milk if indication is important for preterm babies?	34.7%
3	Safe oxygen use means Monitored oxygen use e.g. in the head box or with nasal cannula, routine use of pulse oximeters?	41.3%
4	Supportive care for RDS (respiratory distress syndrome) and Case management of significant jaundice situations is mostly required in premature babies?	34.7%

(42.7%). Majority n=73 educational status of mothers were primary education (48.7%). Majority n=95 occupation of them are housewives (63.3%). Majority

n=79 residence of mothers were rural area (52.7%). Majority n=48 of mothers agreed that preterm babies born before 32 weeks of gestation (32%). Majority n=48

of mothers agreed that preterm babies require extra care (32%). Majority n=59 of mothers were neutral that preterm babies are more immune compromised as compared to neonates (39.3%). Majority n=53 of mothers was neutral.

Preterm babies are at risk of hyperthermia (35.3%). Majority n=56 of mothers agreed that preterm babies require extra thermal care (37.3%). Majority n=54 of mothers agreed that kangaroo mother care is for small babies i.e., babies with birth weight <2,000 g preterm babies (36%). Majority n=57 of mothers agreed that respiratory distress disorder (RDS) is a problem or issue common in preterm babies. In this situation, preterm babies find difficulty in breathing (38%). Majority n=56 of mothers agreed that hypothermia can increase the risk of infections, mortality and for preterm babies, it increases risk of RDS (37.3%). Majority n=51 of mothers strongly agreed that preterm babies are at a risk of cord and skin infections and neonatal sepsis (34%). Majority n=50 of mothers agreed that extra attention to infection prevention and skin care is essential for preterm (33.3%). Majority n=50 of mothers agreed that low blood sugar level (hypoglycemia) increases risk of impairment or death in preterm babies (33.3%). Majority n=52 of mothers agreed that in case of hypoxia (less oxygen) in preterm babies', safe oxygen use is preferred in them (34.7%). Majority n=62 of mothers agreed that lack of breast milk is a risk factor for causing necrotizing enterocolitis in preterm babies (41.3%). Majority n=52 of mothers agreed that low oxygen levels (hypoxia) increases risk of impairment or death in preterm babies, higher risk of RDS and intracranial bleeding among preterm babies (34.7%). Majority n=53 of mothers agreed that extra thermal care for preterm includes kangaroo mother care, baby hats, blankets, overhead heaters and incubators for preterm babies (34.7%). Majority n=54 of mothers are neutral about the extra support for breast feeding e.g., expressing and cup or tube feeding, supplemented breast milk if indication is important for preterm babies (36%). Majority n=50 of mothers strongly agreed that safe oxygen means monitored oxygen use i.e., in the head box or with nasal cannula or routine use of pulse oximeter (33.3%). Majority n=54 of mothers agreed that supportive care for RDS (Respiratory Distress Syndrome) and case management of significant jaundice situations is mostly required in preterm babies (36%).

## DISCUSSION

Present study was conducted to assess the knowledge, attitudes and practices of mothers regarding preterm baby care in the community of Lahore, Pakistan. Several studies were conducted related to this topic but the current study showed different results and conclusion in

past studies. The knowledge of mothers in the community was at a lower score but in present study, the knowledge score of mothers is relatively higher and positive towards newborn baby care. Most participated mothers were middle aged with primary education as their educational status and majority of them were housewives. Most mothers were from rural areas as their residence. The study was conducted in Europe by Henrique Barros. A past study showed that mothers had less knowledge of preterm baby care but present study resulted in mothers having improved knowledge of preterm baby care. The present study showed positive attitude of mothers towards preterm care and its importance in saving lives of immune compromised preterm babies. Present study showed that preterm babies require extra care as compared to neonates or newborn babies. Similar to past study, this present study also showed that extra thermal care is integral for preterm babies. Moreover, the present study also showed that hypothermia can increase adverse effects in preterm babies. Present study expressed that preterm babies are at high risk of hypothermia and they are more immune compromised. As compared to past study conducted, present study had provided concise and clear knowledge on kangaroo mother care and showed that kangaroo mother care is essential for preterm babies. Current studies according to past study showed that respiratory distress syndrome (RDS) mostly occurs in preterm babies. In addition to it, RDS causes difficulty in breathing for preterm babies. Past study and present study showed that hypothermia increases risk of infections, mortality increases risk of RDS in preterm babies. The current study also enhanced the knowledge of mothers regarding possible risks of preterm babies. Premature delivery of infant aspirations within the Natalatal Care Unit (NICU) is a stressful situation for mothers and fathers, leading to the fragmentation of the family structure due to disabilities, limitations, and conditions damaging the family circle practice (Hoffman et al., 2020). The hospitalization of a child within the NICU is a difficult one for mothers and their families, because the NICU's current and technological environment separates children physically, mentally and emotionally from their fathers and mothers. In addition, families have to deal with many problems during hospitalization, especially the knowledge of separation, fear of disease and anonymity, the place of health, and the uncertainty that exists and the future of the family this emergence of the child's clinics and its survival. In accordance with past study, this present study showed that in case of hypoxia (low level of oxygen), safe oxygen is used for treating the risks and effects of hypoxia in preterm babies. Similar to past study, current study also gives information that lack of breast milk becomes a risk factor for causing necrotizing enterocolitis in preterm babies. Moreover, in low oxygen levels, the risk of impairment or death, higher risk of RDS and intracranial bleeding increased for preterm babies.

Similarly, the present study explained that extra thermal care for preterm babies include Kangaroo Mother Care, baby hats, blankets, overhead heaters, incubator for preterm babies. Extra support for breastfeeding e.g., expressing and cup or tube feeding, supplemented breast milk if indication is important for preterm babies had also enhanced the knowledge of mothers in the community.

### Limitation

Study was conducted during a short period of time. Data collected from community Knowledge, Attitude and Practice among mothers in community of Lahore only.

### CONCLUSION

A conducted study helped to assess the knowledge, attitudes and practices of mothers regarding preterm baby care in the community of Lahore. The results of study showed positive knowledge among mothers regarding preterm baby care in community. They showed positive attitudes regarding treatment and prevention of risks in preterm babies but still there is deficiency in their preventive measures and treatments. Therefore, educational programs or health education must be held in hospitals, health care settings of the community in order to provide a large access of knowledge related to preterm baby care.

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