

FACTORS INFLUENCING THE LEVEL OF KNOWLEDGE AND PRACTICES OF NEWBORN CARE

Alok Das, Ratna Mistry

RN, BSN, MPH, Senior Staff Nurse, 250 Bedded TB Hospital, Dhaka, Bangladesh

Annotation: Each year nearly 7.7 million children under five years die around the world, out of which approximately 3.1 million newborns die during the neonatal period, and almost all these (99%) deaths occur in developing countries. According to the World Health Organization, neonatal deaths account for 45% of under-five deaths. More than one-third of these deaths occur in the first 24 h of birth, whereas three-quarters of the neonatal deaths occur in the first seven days of delivery. This study aims to assess mothers' knowledge, attitude, and practices (KAP) about newborns' care and its related factors in Bangladesh. This cross-sectional descriptive study was conducted in the postnatal ward, DMCH, to assess the level of Knowledge and Practice regarding newborn care among postnatal mother in postnatal ward of DMCH. Pre-testing was done to ensure the validity and reliability of the questionnaire with five patients in post natal ward of study location. Data were collected from 200 post natal mother who met the inclusion criteria. Structured and unstructured (closed and open ended) MCQ for knowledge related and 4 point Liker scale for practice related questionnaire were used to collect data and age was distributed according to class interval. The findings showed that there was an association between patient's knowledge and attitude regarding new born care and their education. Postnatal mothers from urban setting had more knowledge and good practice than postnatal mothers from rural setting. But in this investigator did not compare in this area.

Key words: Knowledge and Practice; Awareness; Housewife; Postnatal Mothers Education; Rural Setting.

Introduction

A newborn baby is God's Devine precious gift to mother. Hence the birth of an newborn is one of the most awe inspiring and marvelous joyful event that occurs in every women's life time. World Health Organization (WHO, 1989) stated that approximately 125 million infants born every year, 8 million die before reaching 1 year of life due to various complications. Bangladeshi mother are not aware about postnatal care of newborn due to various factors such as ignorance, low socioeconomic status etc. Care of the mother (and the new born) after delivery is known as postnatal care. The global burden of neonatal death is estimated to be 5.0 million of which the organization and coverage of delivery care, resuscitation, low birth which 3.2 million deaths occur during the first week of life (WHO,1998). Each year, 26 million infants are born in India. Of these, nearly 1.2million die during the neonatal period, before completing 4 weeks of life, amounting to one quarter of all the neonatal deaths in the world (WHO, 1998). Newborn mortality is one of the world's most neglected health problems. It is estimated that globally four million newborns die before they reach 1 month of age and another four million are still born every year. Death

during the neonatal period (the first 28 days of life) accounts for almost two-thirds of all deaths in the first year of life and 40% of deaths before the age of five (Parlato, Darmstadt and Tinker, 2005). India, thus contributes 30% of the 3.9 million neonatal deaths worldwide (Black, Morries and Bryce, 2003).

According to WHO estimates that globally there are about five million maternal deaths a year. Newborn mortality represents 40 percent of all deaths of children at the age five. In Bangladesh, high proportions of infant deaths (two third) & deaths among children aged less than five years (38%) occur in the neonatal period. Although most of these deaths occur at home due to preventable causes, a few mothers are known about routine domiciliary newborn care practices & care seeking for neonatal illness. Each year, approximately four million babies die during the first 28 days of life (i.e. neonatal mortality) and another three million are stillborn (dying between 28 weeks of gestation and birth) Neonatal mortality now accounts for approximately two thirds of all infant mortality & 38% of deaths of children aged less than five years (under five mortality) 99 percent of these deaths occur in middle & low income countries with half of deliveries occurring in home. The neonatal mortality rate in Bangladesh is relatively high 41 per thousand live births in 2003. The newborn health challenge faced by Bangladesh is more formidable than that experienced by any other country in the world. It is estimated that out of 3.9 million neonatal deaths that occur worldwide, almost 30% occur in Bangladesh. Global under-five mortality rates have declined over the past four decades, but the neonatal mortality rates still remains high. More than 90% of births and neonatal deaths occur at home, generally with little to no involvement of the formal health care system. Most neonatal deaths can be avoided through simple, affordable interventions, especially in areas weak health system and high rates of neonatal mortality. In case of outreach and family – community.

Newborn baby are very susceptible to infection. They are at risk for various health problems even though they born with average birth weight. The morbidity and mortality rate in newborn infants are high and need optimal care to improve survival. Newborn care is highly cost effective because saving life of a newborn baby is associated with survival and productivity of the future adult. They constitute the foundation of life. So, essential newborn care is emphasized to reduce the neonatal illness & death by preventing neonatal problems. Care practices immediately after delivery play a major role in causing neonatal morbidities and mortalities. Essential newborn care practices were outlined to decrease the neonatal morbidity and mortalities. These practices include clean cord care, thermal care, and initiating breastfeeding immediately after birth (within 1 hour). The traditional practices like applying cow dung on the umbilical stump, oil instillation into nose etc also contribute to newborn's risk of morbidity and mortality.

Important newborn care, a mother has to take, includes immunization, maintaining hygiene, preventing infection, exclusive breast feeding, post natal care seeking etc. As 8 major diseases can be prevented through immunization and it has to be completed within one year, so it is so much important for mothers to have clear knowledge about it. From statistics, we came to know that infection and diarrhea are major causes of newborn mortality. So a mother should strictly maintain personal and baby's hygiene such as , washing hand before holding the baby, feeding the baby, changing cloth, during bathing the baby and during cord care. Newborn babies are very susceptible to infection. Many infections occur during post natal period, like septicemia, meningitis, and umbilical sepsis and neonatal tetanus followed by birth asphyxia.

Factor related to neonatal infections are lack of knowledge and practice of mother regarding newborn care. To maintain nutritional status of the newborn baby, exclusive breast feeding is the only way. As, colostrums acts as an antibody and provides major nutrients for the baby, it is important to feed colostrums within one hour of birth. To prevent newborn morbidity and mortality and for the early detection of baby's any congenital anomalies or infection, immediate post natal checkup of the baby by a

trained health care provider is essential (Mohammad A. P, Visnu B. B, Maheshwari. E. et al, 2010). The purpose of this study is to assess the correct knowledge, attitude and practice of postnatal mothers regarding the newborn care. Therefore, this study represents the first investigation into the knowledge and practice of postnatal mothers regarding the newborn care. Therefore, the main aim of this study is to investigate whether mothers have inadequate knowledge and practice regarding newborn care and to examine whether there is a relationship between knowledge and practice regarding newborn care. This study also examines the differences of knowledge and practice among postnatal mothers in Dhaka Medical College Hospitals in Bangladesh from April, 2019 to June 2019. An extensive review of the literature demonstrated that there was a need for identifying and specifying the knowledge and practice of mothers regarding newborn care especially in Bangladesh. The findings of this study would provide an evidence for care providers in all areas including practice, education, administration and research to create further health intervention

Literature review

A cross sectional study was carried out by Bhatt, Parika, Kantharia, Dahat and Parmar (2010) from October to December 2010. Study conducted in 179 postnatal mothers from the maternity wards of a tertiary care hospital in Vadodara city. Mothers were interviewed within 5 days after the birth of the child. Data was collected using a structure questionnaire with some open and closed ended questions and data was analyzed by Epi Info 3.2 (window based) software. Investigator found that most common causes of delay in initiating breastfeeding were caesarian section and fatigue (29.7% and 21.1 respectively). 32.6% mothers initiated breastfeeding within one hour of delivery. Incidence of early initiation of breastfeeding in mothers less than 21 years of age was 29.4% and 24.6% in illiterate mothers and 25% in those delivering caesarian section. Early initiation of breastfeeding was maximum (46.7%) in the first and minimum (24.3%) in the third shift of work of health care worker.

Another study was conducted by Thomas in 2005 with a view to compare the knowledge and practice of postnatal mothers regarding neonatal care from selected urban and rural setting of Bangalore. The research approach adopted for the study is comparative descriptive design which was considered as appropriate for the investigator study. Purposive sampling method was used to select to sample from postnatal ward of St. John's Medical College Hospital and postnatal mothers selected from Anekal Taluk Hospital for comparison (Shamim, 2022). The data gathered through interview was analyzed by descriptive and inferential statistics. Based on the result, the following conclusion was made. The finding of the study are that the mean percentage of knowledge score of postnatal mothers from rural setting was 38.43% and from urban setting was 49.77%. The study result reveals that irrespective of postnatal mothers educational status, their knowledge regarding neonatal care was limited. Postnatal mothers from urban setting had more knowledge and good practice than postnatal mothers from rural setting.

The community based, cross-sectional study was carried out in the field practice area of urban slums of Meerut, UP by Ahmad, Goel, Agarwal, Goel, Kumar, and Prakash (2011). The study was carried out from Jan 2011 to October 2011. In this study 280 mothers of infants up to 03 months of age were interviewed. A semi structured, pre tested questionnaire was used. All participants were informed regarding the purpose of study and their consent was obtained for data collection. The result of study showed that many harmful and un-indicated neonatal practices were prevalent in the community. 83.92% of the deliveries took place at home and 51.08% were conducted by untrained birth attendant. New blade was used to cut cord in 63.82%. Turmeric powder with oil or ghee was applied frequently. Bathing the baby immediately after birth was commonly practiced in 76.60%. 68.08% mothers initiated breast-feeding within 24 hrs of birth and 29.92% initiated after 1 day. 62.50% mothers had not given colostrum to their baby, in majority the reason was it prohibited by family customs and elderly members. Immunization status was poor. Practices

regarding newborn care were harmful and knowledge was poor among mothers and this should be promoted through improved coverage with existing health services.

Vural and Kisa (2006) conducted a study on Umbilical Cord Care among 200 newborns with their mothers participated and used case control method. This study used to compare the effectiveness of 3 interventions like tropical applications of Povidone-Iodine twice daily, topical application of mothers milk twice daily or dry care to protect umbilical cord from omphalitis an ongoing questionnaire was administered by telephone every other day after the participants left the hospital. The study conducted that babies in the dry care or tropical human milk group had shorter called separation times than those in the povidone-iodine group and applying human milk to the umbilical cord stump appears to have now adverse effects and is associated with shorter cord separation times than are seen with the use of antiseptics.

Upul, Senarath, Dulitha, Fernando, Ishani and Rodrigo (2006) conducted study on newborn care at home: Effect of a hospital based intervention. The aim of the present study was to evaluate the effect of an essential newborn care training programme for maternity ward staff in improving newborn care after hospital discharge. Before and after study was conducted in the community involving mothers who had given birth in 2 hospitals, in Srilanka. It was a 4 day training programme of ENC among health care providers. In this study 144 mother-newborn pairs followed up interviewed at their households within 28 to 35 days of delivery. Results revealed that there was a significant improvement in umbilical cord care practices at home following the intervention. Application of surgical spirit, on umbilical card has declined from 71.5% in the pre-intervention to 45.3% in the post intervention ($P < 0.001$). There was a 35% reduction in the proportion of newborn who developed any undesirable health events at home ($P < 0.05$).

The above research studies which are reviewed will provide direction to compare with the findings of proposed study area. The information mentioned in the studies those are undertaken by the researchers implies the need to look at the area of having knowledge regarding the newborn care. The above research studies which are reviewed will provide direction to compare with the findings of proposed study area. The information mentioned in the studies those are undertaken by the researchers implies the need to look at the area of having knowledge regarding the newborn care of postnatal mother. Therefore assessment of the knowledge and practice of postnatal mother regarding the newborn care is very important aspect to look at, and to educate postnatal mother to try to come out from superstition, cultural and religious beliefs which are harmful for themselves and their babies. All these findings suggest that the level of knowledge exists in the mothers are grossly inadequate and they require an intensive health education programme to improve their status of knowledge and practice and to lead a healthy life. All these findings suggest that the level of knowledge exists in the mothers are grossly inadequate and they require an intensive health education programme to improve their status of knowledge and to lead a healthy life. With the above knowledge, the investigators are interested to assess the knowledge of newborn care among postnatal mothers because they are the primary care takers of the neonates.

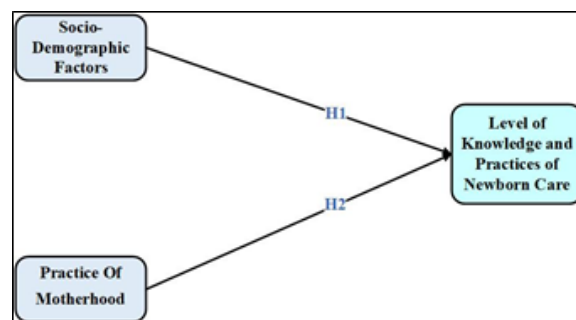


Figure 1: The Research Model

Hypothesis Development

Demographic Factors and Postnatal Motherhood

Utilization of postnatal care can be affected by large number of factors including socio-demographic factors, economic factors, accessibility and availability of maternal and child health services etc.³ Understanding the factors that influence care-seeking behavior for postpartum services in India is vital to improve quality of care and designing appropriate interventions. Our study tried to elucidate these factors in the urban area of Jabalpur district. The principal objective of study was to assess the utilization of postnatal services and factors influencing utilization of health services. Therefore, the following hypothesis can be proposed:

H1: Socio demographic factors has significant influence on the level of knowledge and practices of newborn care characteristics postnatal mother.

Motherhood Practices and Postnatal Motherhood

According to a cross sectional survey conducted in India on Knowledge, attitude and practice of mothers regarding care of the umbilical cord .The samples were 307 mothers with infants less than three months old .The results concluded that good health and cord care practices should be taught to mothers to prevent neonatal sepsis. A study was conducted to assess the effect of home-based neonatal care and management of success on neonatal mortality in rural India .The sample population involves the interventions and 47 Carbol villages of Gadchiroli District. The study concludes that home-based neonatal care including management of sepsis could reduce neonatal mortality substantially in developing countries. Very recently a cross sectional descriptive study was conducted by (Islam, 2012) on different aspects of newborn care in Dhaka Medical College Hospital. Data was collected from 350 post natal mother by using structure and semi structure questionnaire. Result showed that 57.50% mother had knowledge regarding the newborn care. Investigator did not cover investigate the practice the practice related care. Further more result also found that exclusive breastfeeding practice was 51%,which is not acceptable. This result suggest that postnatal mothers need extensive educational programme on EBF as well as postnatal care. As a result, it can be suggested that:

H2: Motherhood Practices have significant influence on the level of knowledge and practices of newborn care characteristics postnatal mother.

Method

A cross sectional descriptive research design was utilized during this study. This design was chosen in order to collect the information and to explore an area of personal interest. A descriptive design is particularly helpful while researching little known phenomena (Beanland, Schneider, LoBiondo- Wood and Haber, 1999) Further-more, these authors stated that the descriptive design is a type of non-experimental research that gathers descriptions of existing phenomena for the aim of using the data to prove or assess current conditions. This type of research design enables characteristics of the area under study to be systematically recorded without the researcher attempting to actively change the situation (Polgar and Thomas, 2000). Cookers and Davis (1998) suggested- that the descriptive design is suitable when the researcher wants to identify a situation, to identify variables which occur within it, to describe variables and to identify the norms for that population. In this study the sample consists of postnatal mothers who were admitted in the maternity ward of Dhaka Medical College Hospital during the data collection period. 200 post natal mothers were selected for this study using a non-probability convenience sampling.

Findings

This Non-experimental, descriptive quantitative research design was conducted with 200 postnatal mothers in DMCH which is very popular and major government hospital of Bangladesh. The responses rate of the questionnaires was 100%.

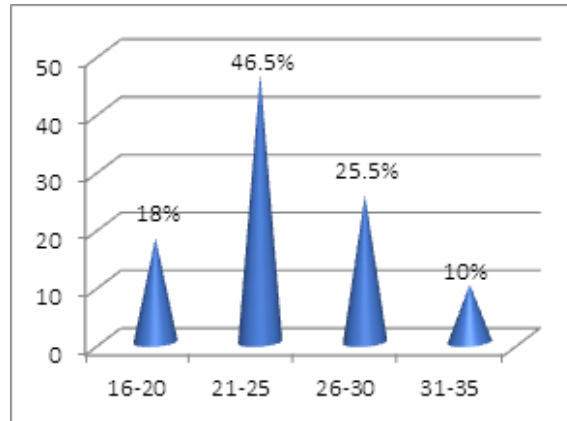


Figure 2: Age range

The age range is from 16 to 35 years. Age is distributed according to Class Interval. The age of the postnatal mother was categories into 4 groups as group 1(16-20), group 2(21-25), group 3(26-30), group 4(31-35). Figure 2 represented that the highest of the age group study population was group 2(n=93) and lowest of the age group was group 4(n= 5). The mean age of the postnatal mother was estimated as 25.37 (\pm SD 2.95) years.

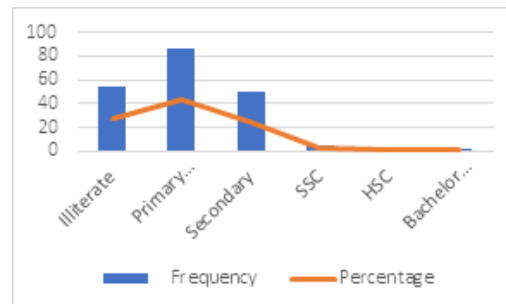


Figure 3: Husband's Education Knowledge

Regarding educational qualification of the respondents, it was highlighted from the study that out of all, the highest number 43.50 percent (n=87) respondent's husband had completed their primary School, next second highest 27.50 (n=55) were illiterate, and lowest 1% (n=2) had completed HSC. The mean education of the respondents' husband was estimated as 2.20 and (\pm SD 1.06). The above table-3 reveals this scenario very clearly.

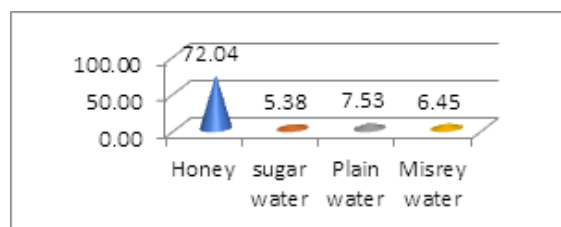


Figure 4: Pre-lactating feeding ratio

According to the distribution of the Women by the name of pre-lactating feeding Out of 200 postnatal mother 46% gave pre- lactating feeding. Of them majority 72.04% gave honey as prelactating feeding, lowest 5.38% gave sugar water. . This feature is well depicted in the figure -5.1. All respondents were asked about given breast feeding after delivery . 100% told that gave breast milk to the baby after birth.

Moreover, table 1 showed the whole result of the practice areas. It is revealed from the study result that greater part 53% opined “always”, 33.8% opined “sometimes”, 8% opined “rare” and 4.45% opined” never”. This data might suggest that postnatal mothers need more knowledge on practical area. This result can not be considered as high level of knowledge or up to the standard level.

Table 1: Result Of The Practice Areas

	Item	Always	Some times	Rare	Never	Total
1	Keep the baby warm with cloth after delivery	139	61	0	0	200
		-69.50%	-30.50%	0%	0%	-100%
2	Clean and dry baby's cord	47	72	32	49	200
		-23.50%	-36%	-16%	-24.50%	-100%
3	Clean the cord site with antiseptic daily	33	79	64	24	200
		-16.50%	-39.50%	-32%	-12%	-100%
4	Change baby's diaper/napkin frequently	179	19	2	0	200
		-89.50%	-9.50%	-1%	(%)	-100
5	Nothing is applied in cord stump	92	79	14	15	200
		-46%	39.5%)	-7%	-7.50%	-100%
6	Clean the baby's eyes	52	116	32	0	200
		-26%	-58%	-16%	0%	-100%
7	Wash hand before and after handling the baby	60	133	6	1	200
		-30%	-66.50%	-3%	-0.50%	-100%
8	Clean perineum during changing diaper	124	75	1	0	200
		-62%	-37.50%	-0.50%	0%	-100%
9	Use warm water to bath the newborn	171	21	8	0	200
		85.5%)	-10.50%	-4%	0%	-100%
10	Provide exclusive breast feeding	178	21	1	0	200
		-89%	-10.50%	-0.50%	0%	-100
	Total	53.75%	33.80%	8%	4.45%	100%

Table 2: Level of Knowledge and attitude on newborn care

Age	Frequency	percentage	Knowledge and attitude on newborn care				χ^2	p-value
			Had knowledge		Had no knowledge			
Less Than 25 Years	129	64.5%	111	63.07%	118	75%	2.916	.088
More than 25 Years	1371	35.543.33%	665	36.95%	6	25%		
Total	200	100%	176	100%	24	100%		

Table 2 shows that the knowledge level was higher (64.5 percent) among women regarding the new born care with the age less than 25 years while 35.5 percent in the age group greater than 25 years. More awareness has been found in the lower age group and p-value was .088.

Discussion

The findings of this study showed that occupation of the post natal mother, the study found that, among 200 respondents 82.5% (n=165) women were house wife, 1.5% were (n=3) were students, 9.5% were service holder, 3% were business and others 3.5% that means they were tailor, daily labor etc. the study result also showed that occupation of the post natal mothers husbands' majority 33.5% were business man, 28.5% were farmer, 10.55 were daily labor, and other 16.5% that means they were tailor, vegetable seller, cook, fish seller. Regarding the postpartum day, the study found that all mothers were different post partum day. The study result also revealed that among 200 participants, 86.67% (n=173) had children at home. Of them majority 48.50% reported that they had one child, 18% had 2 children and 19% had three children at home in their married life. This study also result showed that all post natal mothers age of the last child were different ages. Among them majority 73.93% (n=125) were 1 year.

Next to demographic questionnaire there are other group of questions to assess the Knowledge level of postnatal mother regarding the prelactating feeding 46% were agreed that they gave prelactating feeding to their baby, 45% did not give and 9% did not know. The result also showed that among 46% 72.04% gave honey as prelactating feeding to their child, All postnatal mother were asked regarding breast feeding 100% told that they gave breast feeding after delivery. Of them majority 42% (n=84) started breast feeding after deliver. This study result can be compared with the study of Bhatt, Parika, Kantharia, Dahat and Parmar (2010) who found 32.6% gave breast milk to their baby after one hour. Study result also showed that 100% postnatal mother told that breast milk is the best food for the baby. It is evident from the study result that out of 200 mother majority 60% told that breast feeding should be continued up to 2 year, 25% told up to 3 years, 6.67% told up to 1 year and only 3.33% (n=1) told up to 4 years. It was reflected from the study that among 100 mothers, all post natal mother gave the multiple answer regarding the advantages of breast feeding. In addition Majority 57% had no knowledge about colostrum and 43% had knowledge about colostrums, among them 54.5 gave the colostrums to their baby. This study is not similar with the study of Ahmad, Goel, Agarwal, Goel, Kumar, and Prakash 2011) who found 62.50% gave colostrums to their baby after birth.

The study result also reveals that all post natal mother gave the multiple answer about the time of colostrums should be started, duration of exclusive breast feeding should be given, benefits of EBF, how infection can be prevented, how to prevent neonatal infection, how to prevent heat loss, Essential vaccine for baby and Maintenance babies' cleanliness. What is more, all postnatal mothers gave the multiple answer regarding the benefits of colostrums. What is more, the study results also found that 52% had knowledge about exclusive breast feeding. Among them Majority 43.33% opined 4 months, 36.66% opined 6 months and 17.30% opined 1 year exclusive breast feeding showed be given. This study result can be compared with the study of (Islam, 2012) who found 57.50% post natal mother had knowledge of postnatal care. It was also found from the study result that all postnatal mother gave the multiple answer regarding the – essential vaccine for baby, period of vaccination should be finished, how to maintain baby's cleanliness and when parents should be visited physician.

Study result showed that all postnatal mothers gave the multiple answer regarding the knowledge level questions. Study result also showed that in practice related question always score were 59%, Sometimes score were 53.75, rare score were 33.8 8% and never score were 4.45%. Though the sample size 200 is not large enough but still this finding is very important. The study result shows that there was an association between patient's knowledge and practice regarding new born care and their age. The knowledge level was higher (64.5 percent) among women regarding the new born care with the age less than 25 years while 35.5 percent in the age group greater than 25 years. More awareness has been found in the lower age group and p-value was .088.

The study result shows that there was an association between patient's knowledge and attitude regarding new born care and their education. The knowledge level was higher (79.5) percent) among women regarding new born care with the educated mothers while 20.5 percent in the illiterate mother. More knowledge regarding new born care has been found in the educated group and p-value was .783. This result can be compared with the study of Thomas (2005) who found that irrespective of postnatal mothers educational status, their knowledge regarding neonatal care was limited. Postnatal mothers from urban setting had more knowledge and good practice than postnatal mothers from rural setting. But in this investigator did not compare in this area.

The study results also indicate that there is a large gap of information, which had not been disseminated properly. The social-economic and cultural factors are also responsible for this. The results of the study indicated that there is a need to gain more knowledge of postnatal mother by which they will give emphasis /make them efficient to take care of new born. It is recommended that the aim and effort should be directed towards the growing awareness and motivation of practicing NBC. This can be achieved by providing proper education regarding NBC to the community as well as to the hospital both within OPD and In Patients Department (IPD) of the ANC and PNC. The findings of the study could be placed to the decision and policy-making authority to develop strategy and plans so as to improve service delivery system in future.

Implications for Clinical Practice

The data from this study suggested several areas in which nurses can provide assistance to postnatal mother. The results from the study were quite significant in the context of Bangladesh because, the maternal mortality and morbidity rate in our country are still poor. Nurses are often in the best position to provide postnatal care and give counseling, necessary advice to gain knowledge and motivate mother and their family members to attend educational program.

Conclusion

This study has focused on mothers 'knowledge and practice regarding the new born care. To find out how much knowledge they have on newborn care. The results from this study have provided some important information about postnatal mother knowledge regarding the new born care. It is very important for every post natal mother to gain knowledge regarding NBC. Proper NBC and timely antenatal checkups and delivery by trained personnel (skilled midwives) can significantly reduce the risk of maternal and infant morbidity and mortality. The study result showed that 46% gave the prelactating feeding, 42% gave breast feeding to their child within ½ hour, 33.5% after delivery, 33.5% Within ½ hour to 1 hour. Furthermore, 60% opined that breast feeding should be continue up to 2 years. The study result shows that there was an association between patient's knowledge and attitude regarding new born care and their age. The knowledge level was higher (64.5 percent) among women regarding the new born care with the age less than 25 years while 35.5 percent in the age group greater than 25 years. More awareness has been found in the lower age group. The study result also shows that there was an association between patient's knowledge and attitude regarding new born care and their education. The knowledge level was higher (79.5) percent) among women regarding new born care with the educated mothers while 20.5 percent in the illiterate mother. More knowledge regarding new born care has been found in the educated group.

The results from this study have provided some important information about post natal mother knowledge and practice regarding the newborn care.

It is noticed from the study result that in knowledge related result and practice related score level is not up to the standard level/not satisfactory. After discussion of major findings several recommendations were made and the limitations, implications of the research in clinical practice are discussed.

Conclusions and recommendations

This study has focused on mothers 'knowledge and practice regarding the new born care. to find out how much knowledge they have on newborn care. The results from this study have provided some important information about postnatal mother knowledge regarding the new born care. It is very important for every post natal mother to gain knowledge regarding NBC. Proper NBC and timely antenatal checkups and delivery by trained personnel (skilled midwives) can significantly reduce the risk of maternal and infant morbidity and mortality. The study result showed that 46% gave the prelactating feeding, 42% gave breast feeding to their child within ½ hour, 33.5% after delivery, 33.5% within ½ hour to 1 hour. Furthermore, 60% opined that breast feeding should be continuing up to 2 years. The study result shows that there was an association between patient's knowledge and attitude regarding new born care and their age. The knowledge level was higher (64.5 percent) among women regarding the new born care with the age less than 25 years while 35.5 percent in the age group greater than 25 years. More awareness has been found in the lower age group. The study result also shows that there was an association between patient's knowledge and attitude regarding new born care and their education. The knowledge level was higher (79.5) percent) among women regarding new born care with the educated mothers while 20.5 percent in the illiterate mother. More knowledge regarding new born care has been found in the educated group. The results from this study have provided some important information about post natal mother knowledge and practice regarding the newborn care. It is noticed from the study result that in knowledge related result and practice related score level is not up to the standard level/not satisfactory. After discussion of major findings several recommendations were made and the limitations, implications of the research in clinical practice are discussed. This study was cross sectional descriptive design using questionnaire directed to the study population of postnatal mothers who admitted in postnatal ward. The sample size was too small to generalize the study findings. Therefore, a further study with sufficient number of respondents should be conducted for generalization.

Bibliography

1. Adewale, O. R. (2006) The lived experience of first times breast feeding mothers. *Journal of Child Birth Education*, 23,21-25.
2. Beanland, C., Schneider, Z., LoBendo Wood, G. and Haber, J. (1999). *Nursing Research Method, Critical Appraisal and utilization* 4th edition, Mosby Publisher: Geoff Hasler, Sydney, New York Tokeyo Toronto.
3. Beanland, C., Schneider, Z., LoBendo Wood, G. and Haber, J. (1999). *Nursing Research Method, Critical Appraisal and utilization* 4th edition, Mosby Publisher: Geoff Hasler, Sydney, New York Tokeyo Toronto.
4. Beanland, C., Schneider, Z., LoBendo Wood, G. and Haber, J. (1999). *Nursing Research Method, Critical Appraisal and utilization* 4th edition, Mosby, Publisher: Geoff Hasler, Sydney, New York Tokeyo Toronto.
5. Bhat B, Padiyath A Md, & Ekambar M, et al (2010), *A Study of Maternal Knowledge Regarding Newborn Care*, Delhi, India.
6. Bhatt, S., Parika, P., Kantharia, N. Dahat, A., and Parmar, Rahul (2010). Knowlwdgw Attitude and Practice of postnatal mothers for early initiation of breast feeding in the obstretical wards of a Tertiary care Hospital of Vadodara city. *National Journal of community Medicine* Vol- 3 issue -2 April - June
7. Black RE, Morris SS, Bryce J (2003) *Where and why are 10 million children dying every year?* *Lancet* 361: 2226-2234.

8. Chatman, L.M., Shalihu, H.M., Roofe, M.E.A., Wheatle, P., Henry, D., Jolly, P.E., et al (2004). Influence of Knowledge and attitudes on exclusive breastfeeding practice among rural Jamaican mothers.
9. Clarke, A. (1999). *Data collection: the research interview Professional Nurse* Vol. 14, No. 4 pp 246-249
10. Clarke, A. (1999). *Data collection: the research interview Professional Nurse* Vol. 14, No. 4 pp 246-249
11. Cookers, PA. And Davis, S. (1998). '*Research into practice*'. Bailliere Tindall, London.
12. Cookers, PA. And Davis, S. (1998). '*Research into practice*'. Bailliere Tindall, London.
13. D. L. Lowdermilk & S.E. Perry (Eds). *Maternity & Women's Health Care*(8th ed., pp.755-788), St. Louis: Mosby.
14. Galligon M. (2006). Proposed guidelines for skin-to-skin treatment of neonatal hypothermia. *MCNAM J Matern Child Nurs.* Sep-Oct;31(5):298-3-4;quiz 305-6.
15. Green C. J. & Wilkinson.J.M (2004) *Maternal Newborn Nursing Care Plan.* Mosby, U.S.A
16. Hannon, P.R., Willis, S. K., Bishop – Townsend, V.,Martinez, I.M.& Scrimshaw, S.C.(2000). African-American & Latina adolescent mothers infants feeding decisions and newborn care: A qualitative study. *Journal of Adolescent Health*, pp 26,399-407.
17. Klossner, N. J. (2006), *Introductory Maternity Nursing.* Lippincott Williams & Wilkins. Philadelphia
18. Olds' (2008) *Maternal-Newborn Nursing & Women Health Across the Lifespan.* 8th ed. Volume, 3
19. Omery, S. (1993). *Data collection : The research interview Professional Nurse* vol. no. 4 pp 146-249.
20. Omery, S. (1993). *Data collection : The research interview Professional Nurse* vol. no. 4 pp 146-249.
21. Parajuli, B.K. (1996). *A study on Knowledge of mothers attending an urban clinic regarding antenatal and postnatal care in Dhaka City.* NIPSOM.
22. Parlato RP, Darmstadt GL, Tinker A (2005) *Saving newborn lives, Initiative.* Washington DC
23. Polgar,S., and Thomas, SA. (2000). *Introduction to Research in the health Sciences.* Fourth edition, Churchill Livingstone, Harcourt Publishers Ltd. Edinburgh, London. a and New York.p 36.
24. Polgar,S., and Thomas, SA. (2000). *Introduction to Research in the health Sciences.* Fourth edition, Churchill Livingstone, Harcourt Publishers Ltd. Edinburgh, London. a and New York.p 36.
25. Roberts, K., and Taylor, B. (1998). *Nursing Research Process: an Australian perspective.* First edition Nelson International Thomson Publishing company, South Melbourne.
26. Roberts, K., and Taylor, B. (1998). *Nursing Research Process: an Australian perspective.* First edition Nelson International Thomson Publishing company, South Melbourne.
27. Shamim, M. M. I. (2022). The Effects of COVID-19 on Project Management Processes and Practices. *Central Asian Journal of Theoretical & Applied Sciences*, 3(7), 221-227.
28. Shrilanka Vural G, Kisa S. (2006). Umbilical Cord Care: a pilot study comparing topical human milk, povidone- iodine, and dry care. *Obstet Gynecol Neonatal Nurs.* Jan-Feb; 35(1):123-8.
29. SRS (2010) *Registrar General of India. Statistical Report.*

30. Thomas, S. (2005). A study to compare the knowledge and practice of postnatal mothers regarding neonatal care from selected urban and rural setting of Bangalore. Dissertation on Obstetric and Gynaecological Nursing, RGUoHS, Bangalore, Karnataka, India.
31. WHO(1998). *World Health Report*. Geneva.
32. Worsley, A. 1989. *Questionnaire. Research on health in human population; the Menzies foundation, East Melbourne*, pp 55-76.
33. Worsley, A. 1989. *Questionnaire. Research on health in human population; the Menzies foundation, East Melbourne*, pp 55-76.