

CHAPTER -II

REVIEW OF LITERATURE

Review of literature is a significant step in the search process. Review of the literature refers to an extensive study, a comprehensive methodology, and publications related to the project research. Literature review helps to make sure that what we know about concerning the problem of interest. It provides a foundation for future investigation and justifies the need for replication. A literature review is a summary of current knowledge about the issue of a particular exercise and includes what we know about this problem. Literature is reviewed to summarize knowledge for use in practice or to provide a basis for conducting a study.

A good researcher usually goes through a lot more literature that is incorporated in the paper. This is different literature may have differing significance for the current project, and all of it may not be worth reporting in the end, but in the initial phase, when you are looking for all aspects of an issue that could be relevant, one would like to expansively explore the literature and see if any relevant findings are already available. Some of the literature reviewed is directly relevant and hence used as a preface to explain the background of work. Then other reports may be relevant from the project as they provide some clues to the puzzle by suggesting a hypothesis, which may be the subject matter of your research project.

Lastly, review of literature is also necessary to highlight a difference in opinions, contradictory findings or evidence, and the different explanations have given for their conclusions and differences by different authors. In some cases, an analysis of these factors can help one understand many facets of a complex issue, and at other times, such analysis can lead to a new possibility that we can research upon in the current project.

2.1 NEWBORN CARE

While traditional methods of aging in the care of mothers and children can be expected to fall short of being ideal for mother and child, sometimes even modern

hospitals fail to provide the optimal care needed. Necessities such as hygiene, warmth, and breast milk, and safety and a lack of vigilance and found in some hospitals today (WHO, 2006). While some hospitals provide adequate services, and some hospitals lack even the most basic amenities. There is considerable variation regarding of the country's health.

The World Health Organization (WHO, 1996) recommends the following measures

1. Clean childbirth and cord care to prevent infection.
2. Thermal protection to prevent and manage newborn hypo/hyperthermia.
3. Early and exclusive breastfeeding which should start after one hour of childbirth.
4. Initiation of breathing and resuscitation to facilitate early asphyxia identification and management.
5. Eye care for the prevention and management of ophthalmia neonatrum.
6. Immunization: at birth with Bacilli Calmette-Guerin (BCG) vaccine, Oral Poliovirus Vaccine (OPV) and Hepatitis B Virus (HBV) vaccine.
7. Identification and management of the sick newborn.
8. Care for the preterm and low birth weight newborn.

Costello et al. (2001) conducted a study on the State of the World's New-borns: A Report from Saving Newborn Lives. There has been little change in new-born mortality in the past 20 years, even though proven, cost-effective solutions exist to save many of these young lives. This report reviews the most recent data on the new-born, revealing the alarming poor health and quality of health care for mothers and new-borns in virtually all impoverished countries. The report identifies infections, complications of prematurity, and birth asphyxia and injuries as the primary causes of newborn mortality, with low birth weight an important secondary factor. Another major cause of neonatal deaths in developing countries is identified as poor maternal health, especially during pregnancy. The report argues that many of these neonatal deaths can be prevented with three cost-effective solutions that do not depend on highly technical training or sophisticated equipment: (1) tetanus toxoid immunization; (2) skilled health care at delivery; and (3) immediate and exclusive breastfeeding. Further, the report maintains that policymakers,

nongovernmental organizations, health care professionals, and community leaders need to collaborate in strengthening existing health care delivery systems to provide expectant mothers and their babies the care they need. A key part of this effort is advocating for and creating policies that address new-borns' special needs. The report's appendices include tables providing information on health status and newborn health services and practices, by country. Human Development Index, a composite indicator of development status that includes life expectancy at birth, educational achievement, and real gross domestic product per capita.

Sartaj Ahmad, et al. (2012) conducted an assessment of the Newborn Care Practices in Home Deliveries among Urban Slums of Meerut, UP India. Despite efforts by the government and other health agencies neonatal morbidity and mortality continues to remain high in India. In our community, women receive information about neonatal care from family members, elders and traditional birth attendants regarding antenatal and postnatal care. The community based, cross-sectional study was carried out in the field practice area of urban slums of Meerut, UP. 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 the study showed that many harmful and unindicated neonatal practices were prevalent in the community. 83.92% of the deliveries took place at home, and 51.08 % were conducted by an untrained birth attendant. The new blade was used to cut the cord in 63.82%. Turmeric powder with oil or ghee was applied. Bathing the baby immediately after birth was commonly practiced in 76.60%. 68.08% mothers initiated breastfeeding within 24 hrs of birth and 29.92% initiated after one day. 62.50% mothers had not given colostrum to their baby, in the 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.

2.2 CLEAN CHILDBIRTH

If the risk of infection minimized, that would be a better chance for neonatal survival. This can be ensured by keeping the baby and its environment clean. Ensuring a clean delivery means:

1. Anyone assisting with the delivery should wash their hands with soap before, during and after delivery.
2. The perineal area of the vagina is to be washed before each examination and before delivery, and no foreign material is to be introduced into the vagina (the examiner's hand only when necessary).
3. The delivery surface should be clean, and the birth should not take place on the floor.

Yadav (2007) conducted a study showed that in Pakistan, though respondents knew about the advantages of a clean birth or hygiene was scarcely ever given any importance. Though maintaining the warmth of the newborn was duly seen to, delayed initiation of breastfeeding, avoidance of colostrums and pre-lacteal feeding were also common. The cord care was steered unhygienically, and practices such as applying *ghee* to the cord stump and an unclean cut were widespread among the people. Moreover, even though knowledge of some danger signs in newborns was common, precautionary measures were hardly ever taken.

2.3 DRYING AND WARMING

According to **Parlato *et al.* (2004)** and WHO (1996) body temperature regulation is much less efficient in newborns as compared to adults. They lose heat more quickly too, especially from the head. It is therefore recommended in agreement to WHO (1996) that upon delivery the infant should immediately and thoroughly dry with a clean towel. The stimulation thus provided will also help in regulating the breathing of an asphyxiated newborn. It is also recommended that bathing is delayed to five or six hours after birth (WHO, 1996).

Khadduri et al. (2007) observed in Pakistan that midwives called *dais* left the infant unattended and often on the floor till the placenta was delivered. The babies were washed one or two hours after birth with warm water a mere one or two hours after birth.

Yadav (2007) conducted a study which showed that newborns are considered dirty in Nepal when they came out of mother's womb, and hence they are bathed within an hour of birth.

2.4 CORD CARE

Cord care procedures are crucial to infection prevention. The umbilical cord should be cut with a sterilized blade and tied with sterilized gauze. Furthermore, no substances should be applied to the cord stump (WHO, 1996). It is imperative to keep the cord stump clean because it is the major entrance of infections in babies. The cord stump should be kept clean and dry, it mummifies on its own on exposure to air and does not need to be dressed or bound. As long as it is kept from soiling and is protected with clean cloths, it will remain away from harm. If by accident it does become dirty, it can be cleaned with clean water and wiped with a piece of sterilized gauze. No antiseptic or cleaning reagents are needed for cleaning. Local practices of putting various substances on the stump – whether in the home or medical facilities- should be examined and abandoned if found harmful and should be substituted with proper procedures (WHO, 2006).

In case of a serious infection the cord stump reddens and becomes purulent, and the redness extends to the skin. The baby becomes drowsy, does not suckle well and has difficulty breathing. In such cases, the mother or the caretaker should seek professional medical help. The baby should be taken to a medical facility immediately for proper medical attention (WHO, 2006).

Woodruff et al., (1984) observed that sometimes people lacking in the knowledge of proper health care procedures use blades of grass, bark fibers, reeds or fine roots. Threads, strips of cloth, and strings are used to tie cord. These procedures are harmful,

and since these objects may contain tetanus spores, the baby runs a high risk of contracting neonatal tetanus.

Alam et al., (2008) In the Sylhet district of Bangladesh, among the various substances applied to the cord stump turmeric were found to be the most common. Cord care included bathing, skin massage with mustard oil and heat massage on the umbilical cord. Mothers were the principal providers of neonatal skin and cord care. Most practices were unhygienic in this area.

2.5 IMMUNIZATION

WHO (1996) stipulates that in all populations at a risk of tuberculosis, BCG (*Bacillus Calmette–Guérin*) should be given as soon as possible after birth. A single dose of OPV (*Oral Polio Vaccine*) should be given at birth or two weeks after birth to help in protection from an early stage. The Hepatitis B vaccine should be integrated into national health programs, and in areas more prone to the infection doses should be administered soon after birth.

Vijay Kumar et al. (2015) Immunization status among children between 12-23 months of age attending immunization center at Rajendra Institute of Medical Sciences, Ranchi, Jharkhand. Immunization is one of the most important and most effective methods of preventing childhood diseases. In the past few decades, immunization coverage rates have improved sufficiently in developed countries whereas most of the developing countries are still struggling with faltering rates. The difference in immunization coverage in children in different parts of the world can be attributed to the different socio-demographic profile and effectiveness of ongoing immunization programme. Objectives were to describe the socio-demographic profile of children 12-23 months of age attending Immunization Centre, RIMS, Ranchi. To find the status of immunization and its association with different socio-demographic factors. A descriptive cross-sectional study was done at Immunization Centre, RIMS, Ranchi. The study period was from July 2014 to September 2014. Information of 112 children was collected by using a pre-tested semi-structured questionnaire and from the immunization card. Mean age of the children attending immunization center was 18.53 months ($SD=1.507$). Out of total

112 children, most of them were Hindu [89, 79.5%], male [67, 59.8%] and less than half [49, (43%)] belonging to lower Socio-economic class (SEC) of Revised Prasad's Classification for 2015. Overall, 88 (78.5%) children were fully immunized, and 24 (21.5%) children were partially immunized. There was no any unimmunized child. Education status of the parent was found to be significantly associated with the immunization status of the children. Immunization coverage was relatively better (78.5%). There are gender differences in utilization of services in preventive services like vaccination. Educational level of the parent/guardian was significantly related to the immunization status of the children.

Nath B *et al.* (2017) study on determinants of immunization coverage among 12-23 months old children in urban slums of Lucknow district, India. The study found the suitable factors for raising the coverage of immunization. It also determined the coverage and to identify the various factors of primary immunization. WHO 30-cluster sampling technique was used for the selection of the subjects. Mother, father or relative of a total of 510 children with 17 children per cluster were interviewed in the study. .About 44% of the children studied were fully immunized. The status of complete immunization is about half of what was proposed to be achieved under the Universal Immunization Program. This emphasizes the imperative need for urgent intervention to address the issues of both dropout and lack of access, which are mainly responsible for partial immunization and non-immunization respectively.

Phillips, Clarissa *et al.* (2011) conducted a study on Child Immunization Status among a Sample of Adolescent Mothers: Comparing the Validity of Measurement Strategies. This study of adolescent mothers sought to identify whether a single general question asked by phone or a detailed, vaccine-specific question asked in a self-report questionnaire best-captured infant immunization status at six months postpartum, by comparing them with immunization record books. Responses to a global question about whether infants were up-to-date with immunizations more closely approximated immunization records than did vaccine-specific questionnaire items. High rates of "don't know" and blank responses in the questionnaire suggested respondents were unable to accurately answer detailed questions, even when successful at having their infant immunized. Analyses suggest that

asking respondents about well-baby visits may be part of an alternative strategy for collecting accurate immunization data.

Sanket V *et al.* (2013) conducted a study to assess the immunization coverage in an urban slum of Mumbai by lot quality technique. Immunization against childhood disease is one of the most cost-effective public health interventions available and has saved the lives of millions of children in the past three decades. Immunization also prevents many more millions from suffering debilitating illness and lifelong disability. Achieving and maintaining the high level of immunization among children is necessary for the control and elimination of the major preventable diseases of childhood. Objectives: A present study was conducted to assess the immunization coverage and the impact of socio-demographic profile on that in an urban slum area in Mumbai city. Material and Methods: A cross-sectional study was carried out in the field practice area (cheetah camp urban health center) of the T. N. Medical College, Mumbai from January 2007 to October 2008. A total of 352 children from cheetah camp area in the age group of 12–23 months during the study period were selected by using lot quality technique. In the present study, out of the 352 children taken into consideration, 55.40% were males, and 44.60% were females. The overall coverage of immunization in the urban slum area was 88.07%. The most common reasons for not immunizing the child were: due to the visit to native place/village (14.00%), child was ill, hence not brought (8.20%), unaware of need to return for second and third dose (5.70%), and mother too busy (5.00%). In this study, as the overall coverage of immunization among the urban slum area is good but still it has pockets of non-immunization. Hence, more vigilant surveys should be conducted so that these pockets are identified properly, and proper actions can be taken.

M.M. Angadi *et al.* (2013) did a study of knowledge, attitude, and practices on Immunization of children in urban slums of Bijapur city, Karnataka. The immunization coverage is not uniform in India. In Karnataka, except for Uttar Kannada District (very high immunization coverage of 95%) and 14 districts that have shown a better immunization coverage (>85% coverage), the remaining 15 districts (including Bijapur District) have poor coverage. The United Nations Children's Fund (UNICEF) 2002 report on Bijapur district shows that only a little over one-fourth of the children were fully

immunized (25.8%). The state's fully vaccinated figure was more than two and a half times higher than that of the district. In this prevailing scenario, it becomes the need of the hour to find factors which influence routine immunization in Bijapur district, which will help the planners in implementing the immunization programme in a better way, to achieve >85% coverage. Objectives: To determine the knowledge, attitude, and practices of respondents among guardians of children aged 12-23 months concerning immunization. A community based, cross-sectional study was conducted in the urban slums of Bijapur city, India. Out of the 20 enlisted slums, 7 slums were chosen by using convenience sampling. House to house survey was done. After obtaining oral consents, information regarding knowledge, attitude, and practices were collected by using a semi-structured proforma. A total of 155 mothers/ responsible guardians of children in the age group of 12 to 23 months were included in the study. Children of 54 out of 155 respondents (34.84%) were fully immunized, 97 (62.58%) were partially immunized, and 4 (2.58%) were unimmunized. The main reason for partial and no immunization was found to be lack of information. Immunization coverage in the urban slums of Bijapur is still way short of the 85% coverage mark. A lack of information and motivation among the parents is the main reason for this dismal scenario that needs to be rectified at the earliest.

2.6 BREAST FEEDING

According to WHO (2006), breast milk is the best source of nutrition for an infant. It has numerous advantages. Breast milk is strongly associated with a child's neonatal and future growth and development. Breast feeding begins the process of passive immunization in a baby, even before the active immunization is introduced by the process of vaccination. Breast milk has unique anti-infection properties. It protects the child against a variety of bacterial and viral pathogens. Frequent and exclusive Breast-feeding can help regulate fertility for many women, particularly when other family planning methods are not readily available or desired.

WHO recommends that newborns should be observed for crying and asphyxia immediately after birth. Any symptoms of asphyxia should be attended to immediately,

and infants with this problem should be resuscitated. WHO also asserts that newborns should be breastfed within an hour of delivery. Early contact (immediately after birth) between the mother and the baby has a beneficial effect on breastfeeding according to WHO (1999). Colostrum provides the baby with protection against infections, important nutrients and helps the mother with uterine contractions. The babies' skin and gastrointestinal tract are colonized by the mother's microorganisms. The breast milk contains antibodies which can eliminate these microorganisms. Keeping the baby with the mother is more advantageous than shifting it to another room. Doing so prevents nosocomial infections in addition to providing easy access to breastfeeding.

Important factors in establishing breastfeeding after childbirth include giving the first feed within the hour of the birth, correct positioning of the baby, frequent feeds, no pre-lacteal feeds or other supplements and psychosocial support for breastfeeding mothers.

Babies differ in their behaviors following delivery and not all need to be or are ready to be fed within a universally specified period. However, it helps to be guided by an experienced person in ensuring the correct positioning and attachment of a baby. A healthy baby has no need for large volumes of fluid any earlier than can be provided physiologically by the mother's breast. There is no evidence to support that feeding the baby with additional water or glucose is advantageous to the baby in any way. Traditional pre-lacteal feeds should strongly be discouraged although harmless rituals may be indulged in since they do not come in the way of the first feed. Every birth attendant should also know the importance of unrestricted feeding and the ways of supporting a breastfeeding mother. Mothers should be made aware of dietary precautions and inclusions they must make in their intake of food to sustain lactation. They should be helped and encouraged if they have difficulty feeding (WHO, 1996).

Rokade Helmet *et al.* (2015) conducted a study of breastfeeding practices amongst PNC mothers in urban slum areas in Solapur city, Maharashtra. Since 1993, WHO's effort to improve infant and young child nutrition have focused on promoting breastfeeding. It is estimated that suboptimal breastfeeding especially non-exclusive in first six months of

life results in 1.4 million deaths and 10% of the disease burden in children younger than five years. The objective of present study was to know the various breastfeeding practices and knowledge in lactating PNC mothers. In this Materials and methods were a cross-sectional observational study was carried out from Jan 2012 to Dec 2012. Total of 200 PNC mothers who were enrolled in the Anganwadi were selected for the study. The Results was Out of the total, 14% mothers received advice on breastfeeding during ANC. 6% initiated breastfeeding within 1 hour. 37% mothers had given pre-lacteals. 22% mothers discarded colostrum. 55% babies received demand feeding. Breastfeeding feeding practices were appropriate in 64% of women. In Conclusion, Very few mothers initiated breastfeeding at the correct time. Wrong customs like giving pre-lacteals and discarding colostrum is still practiced in the society. Though the majority of mothers had right knowledge breastfeeding practices was not appropriate. Very few mothers received advised regarding breastfeeding from the trained personnel.

Donald E *et al.* (2002) studied the Breast Feeding Practices in Pakistan. The beneficial effects of breastfeeding, both for the mother and child, are well-known. However, there is evidence that breastfeeding is on the decline in many developing countries. In 1991-92, a nationwide survey was conducted in Pakistan to collect baseline health information on a variety of maternal and child health issues. Several of the survey questions addressed breastfeeding practices. Survey results indicate that fewer mothers are breastfeeding their children and that mothers who do breastfeed often supplement breast milk unnecessarily and stop breastfeeding earlier. Undesirable breastfeeding practices were found to be associated with urban residence, younger mother's age, and higher educational attainment. Possible explanations for the decline in breastfeeding are explored, and implications for the development of more effective breastfeeding promotion campaigns are discussed.

Maheswari Ekambaram *et al.* (2012) studied the knowledge, attitude, and practice of breastfeeding among postnatal mothers. The current study is designed to explore the practices, knowledge, and attitude towards breastfeeding among postnatal mothers and factors that determine them. This descriptive study was carried out in the Neonatal Division, Department of Pediatrics at a tertiary care hospital in South India during April –

July 2009. The data was collected from 100 postnatal mothers by trained interviewers using a structured proforma. In addition to demographic data, mothers were also asked about their knowledge on and attitude towards breastfeeding and the practices they follow. Scoring of the responses to questions was done, and the data was analyzed using Statistical Package for Social Sciences. The knowledge of the mothers was inadequate in areas of time of initiation of breastfeeding (92%), colostrum feeding (56%), duration of exclusive breastfeeding (38%), knowledge on expressed breastmilk (51%) and continuation of breastfeeding while a baby is sick. Better scores correlated significantly with higher maternal age, better maternal education, higher socioeconomic status and having received antenatal care from tertiary care centers and private practitioners. There is still a need for programmes, which support and encourage breastfeeding particularly at a primary care level, focusing more on younger, less well-educated women and those from lower socioeconomic class.

D. K Taneja *et al.* (2003) conducted a study on Infant Feeding Practices and The Underlying Factors in A Rural Area of Delhi. In this study, cross-sectional research design has been used. The study shows that mother's of infants 6-9 Months of age, were attending immunization clinic. Water was commonly given to breastfed babies, and top feeds introduced early. Consequently, exclusive breastfeeding was uncommon. Semisolids were started late, and diluted animal milk was commonly given to infants; as mothers often thought that child cannot digest semisolids or undiluted milk. Milk was also diluted for economic reasons. Insufficient breast milk, illness of mother or child were cited as main reasons for the early introduction of top milk.

Kumari SM *et al.* (2015) conducted a study on breastfeeding practices in rural and urban Warangal, Andhra Pradesh. Breastfeeding is one of the most important determinants of child survival, birth spacing, and prevention of childhood infections. Breast milk is an excellent food and meets all nutritional requirements of the baby for the first six months. The objective was to determine the breastfeeding practices in Urban and Rural areas of Warangal. A cross-sectional study was conducted wherein the mothers of infants in the age group of 0-12 months attending the immunization session at rural and urban health center were interviewed using a pre-designed pretested and pre-coded proforma.

Exclusive breastfeeding for six months in infants above six months of age is better in the rural area (60.6%) than in urban area (47.6%). Information, Education, and Communication activities are required to avoid pre-lacteal feeding, to improve early initiation of breastfeeding and to improve exclusive breastfeeding for six months.

Yadav,(2007) observe that in some backward communities in Nepal colostrum is considered a dirty substance. As a result, newborns are fed on goat or cow milk immediately after birth. It is a popular belief among people here that this makes the child more intelligent.

Khadduri et al. (2007), state that most women breastfed their babies but initiation within an hour of delivery and colostrum feeding were not common.

Bhandari et al., (2003) conducted a study in Haryana, India, showed that 75% of newborns were given pre-lacteal feeds of honey, tea, and diluted milk. The babies were not breastfed for three days after birth. They were often given sweetened water. The study presumes that colostrum was left out of the babies' diet altogether.

2.7 RECOGNITION AND MANAGEMENT OF NEWBORN ILLNESS

It is always better to prevent diseases in newborns. But if an illness does set in deaths can be avoided if the symptoms are recognized early and managed efficiently (WHO, 1996).

Since most infants are born at home or are discharged from the healthcare facilities early, families should make it a point of learning about and being able to recognize early symptoms of illnesses which the child can catch. This will help in taking early steps in curing the child of the disease.

The WHO highly recommends the recognition of major newborn illnesses both at home and at the health center. This way the baby can get a timely referral to a hospital if needed.

The WHO explains further that many signs of normal transition period mimic those of early disease. It is difficult to differentiate between early signs of diseases and

normal signs of transition. Therefore, most often, the disease is in an advanced stage when the newborn is brought to the attention of health workers. Danger signs of diseases in infants are very nonspecific too. They can read in many different ways about different diseases.

Not feeding well, lowering of body temperature, or – in rare cases – fever is some common physical symptoms of illnesses in newborns. Sometimes, the rate of breathing may be accelerated, or intercostals retractions may be accompanied by a grunting sound. The infant may become irritable and may stop waking for feeds.

Vomit diarrhoea and a distended abdomen are other signs of illness. If pus starts draining from the umbilicus or swollen red eyes, the identification of disease is much easier. Jaundice on the first day and convulsions are always a sign of serious illness (WHO, 1996).

A study conducted in rural India to gauge household practices that can affect neonatal health among 200 caregivers reports that more than half of them recognized the signs of fever, irritability, abdominal distention, weakness, vomiting, also breathing, diarrhoea as dangerous for in neonates. 30.38% of the caregivers saw illness in the babies in continuous crying.

The **Newhints Research** (2007) reports that 'Asram' is considered the most common problem in babies. It is described as a sickness that affects children below one month of age or in the womb itself. It is believed by several people that it is caused by accidentally looking at a pregnant woman's breasts or stomach, or a pregnant woman walking past a house with Asram medicine in it. This is just a superstition.

Uchenna Ekwochi *et al.* (2015) studied the knowledge of danger signs in new-born and health seeking practices of mothers and caregivers in Enugu state, South-East Nigeria. This study aimed to assess the perception of mothers and caregivers of danger signs in new born and their knowledge of the WHO recognized danger. A secondary aim was to explore the socio-demographic factors of mothers that influence knowledge of the WHO recognized danger signs and the health-seeking behaviors of these mothers and caregivers. This was a community based descriptive and analytical study which used a

multistage sampling technique to select 376 mothers and caregivers from four communities in 4 of the 17 Local Government Areas (LGA) of Enugu State. Knowledge of more than three of the nine WHO recognized danger sign was poor. Majority of the mothers had knowledge of one (i.e., fever) WHO recognized danger sign. Knowledge of the WHO signs was not significantly associated with maternal socio-demographic variables considered in this study. Healthcare seeking behavior was significantly determined by knowledge of at least one WHO recognized danger sign. A cough, diarrhoea and the excessive crying were the most perceived and experienced non-WHO recognized dangers signs among respondents. There is urgent need to strengthen the teaching and training of expectant mothers across all maternal socio-demographic variables on these danger signs and the most appropriate measures to take when they occur.

Sandberg J *et al.* (2014) conducted a study on “Inadequate knowledge of neonatal danger signs among recently delivered women in south western rural Uganda: a community survey.” Early detection of neonatal illness is an important step towards improving new-born survival. Every year an estimated 3.07 million children die during their first month of life, and about one-third of these deaths occur during the first 24 hours. Ninety-eight percent of all neonatal deaths occur in low- and middle-income countries like Uganda. Inadequate progress has been made globally to reduce the number of neonatal deaths that would be required to meet Millennium Development Goal 4. Poor knowledge of newborn danger signs delays cares to seek. The aim of this study was to explore the knowledge of key newborn danger signs among mothers in south western Uganda. Results from a community survey of 765 recently delivered women were analyzed using univariate and multivariate logistic regressions. Six key danger signs were identified, and spontaneous responses were categorized, tabulated, and analyzed. Knowledge of at least one key danger sign was significantly associated with being birth prepared. Birth preparedness consisted of saving money, identifying transportation, identifying a skilled birth attendant and buying a delivery kit or materials. Overall, respondents had a poor knowledge of key newborn danger signs: 58.2% could identify one and 14.8% could identify two. They found no association between women attending the recommended number of antenatal care visits and their knowledge of danger signs, or

between women using a skilled birth attendant at delivery and their knowledge of danger signs. Study findings indicate the need to enhance the education of mothers in antenatal care as well as those discharged from health facilities after delivery. Further promotion of birth preparedness is encouraged as part of the continuum of maternal care.

2.8 TRADITIONAL PRACTICES

Most deliveries occur at home and even when they occur in hospitals the mother and child are discharged soon after the birth. Hence traditional practices found in homes need to be taken into account when working for the adoption of better neonatal and maternal health care. The treatment is given to the mother and the child at home consists majorly of traditional practices, and these have a significant impact on the neonatal morbidity and mortality patterns (WHO, 2006).

Newhints (2007) Study shows that some traditional practices of newborn care are not by proper medical procedures or guidelines. The fact that most births occur at home increases the chances of such practices taking precedence over the correct ways of giving care to the mother and the child. A study conducted in the Brong Ahafo region of Ghana reports that application of hot water and shear butter on the cord was common and it is believed there that applying nothing and letting it fall off was harmful and might even be fatal to the baby, the mother is confined to the room till it falls off and it is even believed that it delays the child in becoming a human being in some ethnic groups of the region.

Sethi (2005) conducted the study among the rural poor in Western Uttar Pradesh, to identify factors influencing newborn care showed that nearly all infants were left wet and naked on the floor until the placenta was delivered and were washed within the hour. Very few birth attendants washed their hand with soap before attending to the birth. It also reports the use of a new blade dipped in hot water to cut the umbilical cord and a unsterilized string being used to tie off the stump after that. Breastfeeding was not carried out timely. The mothers' behavior was influenced by the mother-in-laws' advice and beliefs, traditional practices.

Parlato et al. (2004) found in his study that hygiene and uninfected conditions are often hard to achieve in poor communities. People are not aware of the dangers an unclean environment poses for a newborn child. Therefore, not much effort is made in taking preventive measures. Furthermore, this lack of hygienic practices extends to cord care, drying and wrapping of the newborn, etc.

Khadduri, (2007) studied cultures where the whole episode of birth is considered unclean and polluted, skin to skin contact and delay in bathing the child may be regarded as a dangerous practice; moreover, they could be seen as a violation of religious faith. These things could be perceived as undermining the principles of religion. A study in Haripur district of Pakistan showed that most deliveries take place at home assisted by a traditional birth assistant called 'Dai' because she is locally accessible and considered experienced. It is the Dai usually cuts the cord, ensures that the baby is breathing, washes the baby and provides post-partum support.

Fikree et al., (2005) conducted a study in Karachi, Pakistan revealed that the vernix was washed immediately after birth because it was considered "dirty-looking" and it was felt it should be removed. Daily massage of the newborn and risk-prone feeding practices which included pre-lateral feeds, supplementary feeds, delaying first feed was common. Apart from breast milk, which was considered the preferred feed, honey 'ghutti' and water were also added to the diet of the newborn. This was done to act as a laxative and reduce colic. These were measures taken by mothers along with TBAs.

WHO (2006) Socio-cultural beliefs lead to the practice of applying substances to the umbilical stump to heal it instead of letting it fall off naturally. This a major health risk due to the propensity of infections to start through here. Religious or cultural beliefs played a major role in the reasons behind such practices. Since each community has its unique traditions and culture, traditional practices differ from community to community

Not all traditional practices are harmful just like not all modern practices are beneficial. Feeding through rubber nipples and plastic bottles, the use of pacifiers is unsafe. It is important to identify traditional and cultural practices and evaluate their impact. They can be classified by beneficial practices that should be promoted, harmful

practices that should be stopped, harmless practices that can be ignored for the time being or practices that need to be researched before being applied.

The World Health Organization maintains that bottle feeding, use of pacifiers and separation of mother from her newborn infant should be discouraged and special efforts are made to study home remedies for simple problems and to promote those which are effective.

2.9 KNOWLEDGE OF THE CARE OF THE NEWBORN

Myles (2003). Newborn care aims at ensuring that the baby is made comfortable can feed and facilities are available to help parents with the attachment process. It is also important to ensure that the baby is protected from airway obstruction, hypothermia, injuries, and infections.

Parlato et al., (2004) Hygiene and aseptic conditions may be unknown or very difficult to achieve in many poor communities. People may not be aware of the environmental dangers of infection and may not make much effort in combating them, this pervasive acceptance of unhygienic conditions may extend to cord care, drying and wrapping of the newborn, etc.

Tarimo (2000) & Chibwana et al., (2009) study reveals that mothers and caregivers in Tanzania and Malawi did not have inadequate knowledge regarding the causes and treatment of conditions such as sepsis and malaria. However, they knew danger signs such as fever in infants. In another study conducted in a rural community in northern India to assess household knowledge that can affect neonatal health among 200 caregivers, it was reported that caregivers identified illness among neonates in the form of continuous crying.

Panul & Deadihic, (2007) defined a healthy newborn as one born at term (between 38 to 42 weeks of gestation) and cries immediately after birth. The period from birth to 28 days of life was referred to as neonatal period and the infant in this period is termed as neonate or newborn. The morbidity and mortality rate in the newborn is high and hence the need for optimal for improved survival.

Padiyath et al., (2010) conducted a study in India; found that older and educated women with higher social, economic status were significantly associated with higher knowledge scores for right neonatal care practices.

Helmy, & Bahgat (1998) In another study to assess the mothers' knowledge and practices of basic newborn care given at home in Obstetric University Hospital in Tanta City revealed that mothers' knowledge and practices were within good and satisfactory in most of the studied items related to newborn care giving at home except breastfeeding.

Asif et al. (2010) A study conducted among postnatal mothers in southern India revealed that the knowledge of mothers was inadequate in areas of umbilical cord care (35%), thermal care (76%) and vaccine-preventable diseases. However, 19% of them still practiced oil installation into nostrils of newborns, and 61% of them administered gripe water to their babies

2.10 ATTITUDES/BELIEVES ON THE CARE OF THE NEWBORN

Malawi National Statistics Office (2004) In Malawi Demographic and Health Survey it was reported that many prevailing cultural and social norms and practices were known to be barriers to improving survival and health of newborns in Malawi concerning newborn care.

Pascale et al. (2007) An epidemiological study was carried out in Yaounde, Cameroon, revealed that 98% of mothers breastfed their children. However, 2% of mothers who did not breastfeed their children because of the belief that milk flow was not enough or the infant's refusal to suckle as the main reason.

Gurong, (2008) A study conducted to determine behavior's related to the immediate care of the newborn in Kailali district, Nepal showed that most people were unaware of the importance of immediate care of the newborn and many unsafe behaviors did exist based on deep-seated traditional beliefs.

Yadav (2007) Another study in Nepal reported that newborn babies were considered dirty as they came out of their mother's womb, hence almost all newborn babies were

bathed within the first hour of birth. The same study revealed that colostrum was regarded as dirty milk in some communities, and as a result babies were fed with cow or goat milk immediately after birth for the popular belief that it will make the baby more intelligent.

Hizel et al. (2006) A study which was conducted on traditional beliefs as influencing factors on breastfeeding performance in Turkey. It was found that more than 30% of the mothers believed that colostrum should not be given to the newborn, and others believed that breast milk could harm their babies.

ErgenekonOzelci (2006) The study showed that the mothers had a positive attitude towards breastfeeding. However, colostrum was usually perceived negatively. No woman was found to feed her infant exclusively by breast-feeding.

Hake-Brooks & Anderson (2008) According to the study mothers' perception of the skin-to-skin contact in the kangaroo-carrying position had improved with the majority of them practicing it more competently and confidently than mothers whose babies were under conventional incubator care. Most mothers were happy because they felt that the kangaroo method was safe, and did not separate them from their infants.

Adeyinka (2008) A study done on the mother's attitudes towards immunization in Western Nigeria revealed that almost 97.6% mothers who attended antenatal clinic thought their child should be immunized. However, 8.2% of the respondents believed that immunization caused fever while 5% believed it causes deformity while others believed that local herbs were good substitutes for immunization

Cyprianet al., (2011) Another study conducted in Aweil East and North counties in the northern Bahr-el-Ghazal region to determine the attitude towards immunization revealed that most mothers had good knowledge and had a positive attitude towards immunization. They believed it protected against diseases such as polio and measles. However, two mothers did not like immunizations, especially the polio vaccine, because complained that it made children sick. One mother said that the child's father was against immunization because it was against their culture

2.11 MOTHER'S PRACTICES IN THE CARE OF THE NEWBORN

According to NSO, UNICEF& MIC (2006 & 2008) in Malawi most newborns and mothers do not receive PostNatal Care (PNC) services from skilled health care providers during the critical first few days after delivery. The result also established that only four percent of newborns received post-natal care the first week after delivery. A community-based study conducted in Sudan indicated that 54.2% of mothers initiated breastfeeding after one hour from delivery and 39.7% of them initiated breastfeeding during from two hours to 24 hours, and only 6.0% of the mothers initiated breastfeeding after one day (Haroun, 2008).

Miso et al. (2008) in their study on understanding home-based neonatal care practices in rural Tanzania reported that the majority of detrimental practices to newborns during the neonatal period included the delay in providing warmth to delivery and bathing newborns soon after birth.

Mesko et al. (2003) A studies by Mesko found that major obstacles to accessing newborn care were “the need to wait and watch” and preference to treat illness within the community. Traditional medicines were used for the treatment of neonatal conditions.

Ogunlesi &Oufowora, (2010) In India, traditional medicines were used for the treatment of neonatal conditions such as bulging fontanel, chest in-drawing, and rapid breathing.

Zulfia et al., (2009) A study revealed the material used for cutting the cord in urban slums included; a new blade was in 59.9% of the cases but by traditional objects such as the edge of a broken cup in 40.3% of the cases. Also, the results showed that 50% of the home deliveries were attended by Trained Birth Attendants and 40% were attended by untrained birth attendants.

Bland et al., (2002) Culturally, most African communities practice mixed feeding instead of exclusive breastfeeding. In most circumstances, primary health practitioners advised mothers according to formal guidelines without being adequately aware of the mothers' preferences, skills, and home circumstances

Sethi (2005) A study conducted among the rural poor in western Uttar Pradesh, to identify factors influencing newborn care showed that nearly all newborns were left wet and naked on the floor until the placenta was delivered and bathed immediately after birth. Very few birth attendants washed their hands with soap before assisting the delivery. It also revealed that they used new blade dipped in hot water to cut the cord but used unsterilized cord ligature.

Bhandari (2003) Another study conducted in Haryana, India revealed that 75 percent of newborns were given pre-lacteal feeds of honey, tea, and diluted milk, and babies are often not breastfed during the first three days. They were often given sweetened water; this presumes that colostrum was discarded.

Li Salami (2006) In contrast to studies reported that 82% of the mothers in Edo State, Nigeria practiced breastfeeding, 66% supplemented with corn gruel and glucose water, and 14% used herbal brew. Only 20% practiced exclusive breastfeeding.

Cyprian (2005) A survey conducted in Aweil East and North counties in the northern Bahr-el-Ghazal region showed that most mothers (94%) breastfed their babies within one hour of birth and 6% gave cow milk immediately after birth. 82% of them breastfed on demand especially during daylight, and 69% breastfed 2-3 times at night.

Sachdev (2006) A survey was carried out in the immunization clinics of Pokhara city of western Nepal revealed that 90% of deliveries took place at home. However, information about reasons for delivering at home and newborn care practices in urban areas of Nepal is lacking.

Sachdev (2006) & Sloan (1994) The preterm infants on KMC have been found to have reduced rates of severe morbidity compared to those on conventional care. Low birth weight infants on Kangaroo Mother Method (KMM) had a significantly lower rate of morbidity than the control group.

BergstrAqm (2005) A study conducted on the impact of newborn bathing on the prevalence of neonatal hypothermia in Uganda revealed that bathing newborn babies

shortly after birth increased the risk of hypothermia. On the other hand, the use of warm water and skin-to-skin care for the thermal protection of the newborn reduced the risk of hypothermia.

Justification and Utility of the Study: Despite a significant improvement in child survival, the burden of neonatal mortality remained almost unchanged. Infant mortality remains a major cause of death among children under five years of age in India, which can be prevented by implementing the WHO's simple and effective recommendation on basic birth care practices. Many studies conducted on basic care for the newborn is showing a poor status of knowledge of mother's, negative attitudes and practices around the world. The present study aimed to identify gaps in the knowledge, attitude, and practices of newborn care among mothers who are living urban slum area of Lucknow city. Health care providers will be informed of the ability to identify gaps in basic birth care knowledge and practices for appropriate interventions that will improve neonatal outcomes.