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# "A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME (STP) ON KNOWLEDGE REGARDING SELECTED NEWBORN DANGER SIGNS AMONG MOTHERS OF NEWBORN IN SELECTED HOSPITALS OF LUCKNOW UTTAR PRADESH"

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### **ABSTRACT**

Newborn danger signs signify the presence of clinical signs the presence of clinical signs that would indicate high risk of neonatal morbidity and mortality and need for early therapeutic intervention. The study aimed to assess the effectiveness of structured teaching programme on knowledge regarding newborn danger sign among mother of newborn and to find out the association between the pretest knowledge with their selected demographic variable of selected hospitals in U.P. A Quasi -Experimental one group pre- test post- test only design was used to conduct the study among 60 mothers of newborn danger sign who were conduct the study as a sample are non-probability convenience sampling technique was used the study. Tool made reliable with r=0.79 pilot testing done with 10% our all population. Pretest done followed by intervention was given and after seven days' post-test was given. The data was analyzed by using both descriptive and inferential statistics. The findings of the study revealed that the maximum percentage was in the age of mothers 33(55.0%) were 26–30 years, Majority of mothers 38(63.3%) were belongs to Hindu

religion, Majority of mothers 38(63.3%) area of residence belongs urban, majority of mothers38(63.3%) type of family nuclear, most of mothers 31(51.7%) Education qualification was intermediate, on the basis of occupation of mothers showed that most of mothers 34(56.7%) was housewife, most of mother's monthly family income 34(56.7%) was Rs.10000/- to 20000/. Majority of mother's no of children 28(46.7%) one children, Majority of mothers 17(28.3%) any previous knowledge about new born problem and Majority of mothers 30(50%) had received source of information from obtained from health care worker. The mean score of post-test knowledge (21.57%) was apparently higher than the mean score of pre-test knowledge (12.23%), and standard deviation of post-test 2.81 was apparently higher than the standard deviation score of pre-tests 2.17, suggesting that the structured teaching programme was effective in increasing the knowledge of the mothers of newborn regarding newborn danger signs. Knowledge received about newborn danger signs among mothers of newborn were found non-significant at 0.05 level of significant the mean difference 9.34 between pre-test and post-test knowledge score of mothers of newborn was found to be significant. So, there was a significant difference in pre-test and post-test knowledge scores among mothers of newborn. There was significant association between pre-test level of knowledge regarding new born danger signs among the mothers of newborn with their occupation. The study concluded that there was an effectiveness of structured teaching programme on newborn danger signs among mothers of newborn.

*Keyword:* Assess, Effectiveness, Structured Teaching Programm (STP), Newborn danger signs (NDS<sub>S</sub>), Mothers of Newborn,

### **CHAPTER-I**

### INTRODUCTION

The periods from birth to 28 days of life is called neonatal period and the infant in this period is term as neonate or newborn baby. The first week of life is known as early neonatal period and the late neonatal period extends from 7th to 28th days of age. The healthy newborn infant born at term between 38 to 42 weeks cries immediately after birth establishes independent rhythmic respiration quickly adapts with the extrauterine environment, having an average birth weight and no congenital anomalies. Common health problems in newborn include colds, coughs fevers and diaper rashes, infection, dermatitis eye sepsis, hypothermia or hyperthermia, jaundice (Hyperbilirubinemia) bloated belly, vomiting, abdominal distension, noisy breathing colic, hiccups all common problem symptoms of newborn.<sup>1</sup>

The first 28days of life the neonatal period are the most vulnerable time for a child survival. Globally, 2.6 million newborns died in 2016 or 700 every day and sub-Saharan Africa account 38% of glob newborn deaths. Neonatal danger signs (NDS) refer to the experience of clinically detected signs that might indicate a high risk of neonatal m morbidity and mortality and the need for timely medical treatment or therapeutic intervention.<sup>2</sup>

Globally the main causes of newborn's deaths are preterm birth complications, complications during labor and delivery and sepsis. Neonates and young infants often present with nonspecific symptoms and signs of severe illness. Neonatal danger sings signify the presence of clinical signs the presence of clinical signs that would indicate high risk of neonatal morbidity and mortality and need for early therapeutic intervention. In

rural eastern Uganda newborns with danger signs were at higher risk of death than those who Studies indicate that healthcare- seeking behavior of mothers was affected by their knowledge on newborn danger signs which is important to recognize. Maternal knowledge of NDSs and delays in deciding to seek care were major contributors for neonatal mortality. Knowledge of mothers on NDSs varies in different studies; in Nepal mean knowledge of 26.30%, Kenya 84.5% of mothers attending well baby clinic had low level of knowledge and in Ethiopia 50.6% in Mekelle city, 31.3% in Wolkite town 43.7 in Aksum town 50.3% in Chencha district, 18.2% in Gondar town and 21.7% in hospital. A newborn or neonate is a child under 28 days of age. During these first is at highest risk if dying. It is thus crucial that appropriate feeding and care provided during this period, both to improve the child's chances of survival and to lay the foundation for a healthy life. <sup>2</sup>

The first twenty-eight day of neonatal life comprise an extremely critical period for the survival of neonates as a result it is the foremost endangered period due to which neonates undergo many physiological and environmental changes to adapt to the extra – uterine life. Globally, 2.6 million neonates ended up with preventable death within the initial 4 weeks of life properly death accounting for 46% of all under five mortalities. Africa represents 25% of the global neonatal death. Five countries including Ethiopia accounted for half of the world neonatal death recent data in Ethiopia showed that the neonatal mortality rate is 30 per 1000 live birth.<sup>2</sup>

According to world health organization key recommendation high grade fever, fast breathing hypothermia, severe chest in drawing, convulsion, unconsciousness, jaundice in the 1st 24 hours/ involving the palm sole, lethargy, Umbilical redness or pus drainage and unable to breastfeed are danger sign for a neonate some other studies reported that diarrheas from the eye are considered as neonatal danger signs. Evidence recommends that there is a need to increase awareness on NDSs through continue care to improve mother knowledge of neonatal danger signs. However, there is negligence of health professional to create awareness on neonatal danger sign in the real-world Mother Knowledge of neonatal danger sign and health seeking practices. The effective provision of compassionate and respectful care throughout all the continuum of care will increase the conscious intention of the mother's health seeking practice for neonatal illness. Beside knowledge and health seeking practice of mothers on neonatal dangers signs are the best indicators of accessibility y and quality of care provided by health professional.<sup>3</sup>

Generally improving newborn and children health is a national and global agenda that comprises the third component of the sustainable development goal (SDG). Consequently, improving the health of a newborn and reducing their mortality will play a great role in the achievement of the SDG. This could be achieved by identifying factor affecting a mother's knowledge of neonatal illness and health and health sleekness practice, even though researches were conducted on mother's knowledge of neonatal danger signs and health seeing practice in Ethiopia. The currently conducted researches failed to address some variable like birth preparedness, husband involvement in maternal, neonatal and children health (MNCH) history of neonatal death the role of health extension workers (HEWs)and mothers 'autonomy in MNCH care utilization in common. Millions of mothers and their newborns throughout the world are living in a social

environment that does not encourage healthcare-seeking behavior. Thus, many mothers do not generally seek formal healthcare during the postpartum, which has a major impact on healthcare-seeking for mothers and the survival of their newborn.<sup>4</sup>

In low- and middle-income country settings approximately three-quarters of neonatal death occur in the first week of life and nearly half occur in the 24 hours of which more than half occur at home. Most newborn morbidity and mortality could be averted if mothers and newborns receive appropriate care during pregnancy child birth and during the post-partum period. The essential newborn cares include thermal care exclusive breast feeding and clean. Cord and eye care to delivered successful neonatal health care facilities and providers must not only be available and accessible, but illness must first be recognized and core desired by the neonate's care giver after a parents or other family member. As such understanding care seeking practices become essential for health interventions have a positive impact. Management of neonatal and childhood illness developed by the world health organization (WHO)identified the newborn danger signs of severe illness as history of difficulty feeding, movements only when stimulated temperature above 37.5 degree Celsius, respiratory rate over 60 breath per minute severe chest in drawings and history of convulsions According to who children face the highest risk of dying in their first 28 days of life at an average global rate of 18 death per 1000 live birth in 2018 three quarter of neonatal mortality, occur in the first seven days of life and 1/3 dying on the first day. The first four weeks of life is the time which the highest risk of newborn death occurs. NDSs are one of the most common causes of neonatal mortality in developing nation. The highest prevalence of neonatal mortality occurs at home, where a few mothers seek medical care of signs of neonatal illness, and nearly no newborn is taken to health facilities when they are sought.5

Assessment of these signs will result in a high overall sensitivity and specificity for predicting the need for hospitalization of a neonate in the first weed of life Increase the awareness about danger signs among parents is therefore considered as one of the most important components of the strategy to reduce mortality among newborn babies. It was envisaging that this would help by ensuring that medical assistance is obtained at the earliest in case of an illness thereby reducing the chances of mortality.<sup>5</sup>

### NEED FOR THE STUDY

The most common identified newborn danger signs are fever, lethargy, inability to feed, low temperature, fast breathing, persistent vomiting, convulsions, and pus draining/bleeding from umbilical area, lack of consciousness, yellow palm/sole/eye and eye discharge/redness. Danger signs in the neonatal period (0–28 days) are non-specific and that indicates severe illness. Neonatal Danger Signs (NDSs) are signs used in integrated management of neonatal and child illness (IMNCI) by practitioners to identify children who need medical care. <sup>6</sup>

Early detection of neonatal illness is an important step towards improving newborn survival. If mothers know appropriate manifestations of neonatal danger signs, it is possible to avert related neonatal mortality, because the health-seeking behavior of mothers highly relies on their knowledge of neonatal danger signs.

Based on the above facts, we aimed to assess the knowledge of neonatal danger signs and its associated factors among mothers' Newborn danger signs refer to the presence of clinical signs that would indicate a high risk of neonatal morbidity and mortality and the need for early therapeutic intervention. Which includes, cough, difficult/fast breathing, lethargy, loss of consciousness, convulsion, fever, hypothermia, poor feeding or unable to suckle, persistent vomiting, diarrhea, yellow palms or soles or eyes, eye discharge/redness, and discharge or pus from the umbilicus.<sup>7</sup>

WHO neonatal danger sign was considered as having good knowledge and those who mentioned less than were considered as having poor knowledge. According a study in which awareness regarding newborn danger signs among mothers in this study knowledge among mother Neonatal danger signs are signs that sick neonates show as stated by world health organization (WHO), which include not able to feed, or stopped feeding well, convulsed or fitted since birth, fast breathing, high temperature (37,5C or more), and hypothermia.<sup>7</sup>

The factors that influencing mother level of knowledge about neonatal danger sign are varied and may include age, maternal and husband education, occupational status place of residence history and frequency of antenatal care (ANC)visits history of postnatal care (PNC) newborn and adult infant mortality and morbidity rate. Knowledge of mothers on NDSs varies in different studies; in Nepal Mean knowledge of 26.30%, Kenya 84.5% of mothers attending well-baby clinic had low level of knowledge and in Ethiopia 50.6% in Mekelle city, 31.3% in Wolkite town, 43.7 in Aksum town, 50.3% in Chencha district, 18.2% in Gondar town and 21.7% in Woldia Hospital. Studies indicated that different factors were affecting mother's knowledge on NDSs. Lack of specificity of the clinical manifestations of various neonatal illnesses and delay in seeking care were resulting in mortality. The first 28 days of life the neonatal period is the most vulnerable time for a child's survival. Globally, 2.6 million newborns died in 2016 or 7000 every day and Sub-Saharan Africa accounts 38% of global newborn deaths. Half of all newborn deaths occurred in: India, Pakistan, Nigeria, Democratic Republic of Congo and Ethiopia. Studies showed that there are disparities across regions and countries to end preventable deaths of newborns to at least as low as 12 deaths per 1000 live births. Majority of neonatal deaths (46.3%) occur within the first 24 h and 75% occur during the 1st week of life. In Ethiopia, neonatal-mortality ranges from 27.6 to 63/1000 live-births with 37 in 2011 and 29/1000 live-birth in 2016.8

Preventing mortalities by enhancing the child health in the community is at the principal of the approach named Integrated Management of Childhood Illness (IMCI), which was developed by UNICEF and the WHO in 1992 to prevent or detect and treat the top childhood killers. The IMCNI initiative adopts a crosscutting approach recognizing that, in many cases, more than one underlying cause can lead to the child illness. IMCI attempts to combine the lessons learned from various preventive nationwide programs into an effective approach for managing the sick child. IMCI attempts to decrease childhood mortality and morbidity by enhancing family and community practices for the home management of illness.<sup>8</sup>

According to UNICEF, 40% of all under-5 deaths occur within the first month of life and half of these within the first few days of life. Knowledge of mothers about the danger signs in newborn is imperative to reduce these delays and preventable mothers as danger signs and those that mothers have actually experience in their current or previous newborns of the WHO recognized danger signs, fever (25.4%), refusal to feed (8.5%) and weakness (7.1%) were the most frequent signs mentioned as danger signs by the mothers. Others include convulsion (6.1%), "cold body" (hypothermia) (3.6%), yellowness of the body (i.e., jaundice) 41 (3.4%), difficulty in breathing (2.9%), boil and/or rashes (2.5%) and fast breathing 20 (1.7%). Mothers also mentioned signs perceived as dangers signs which are not WHO recognized. They include but were not limited to diarrhea 123 (10.3%), excessive crying (8.1%), vomiting (6.8%) and abdominal colic (2.1%). Of all mothers experienced these signs in their newborns (current or previous), fever (30.9%), convulsion (4.8%) and jaundice (3.7%) were the commonest WHO recognized danger signs that have been experienced by the mothers while cough 29 (7.7%), diarrhea (5.3%) and the excessive crying (3.7%) were the most frequent Different tools to facilitate identification of these health problems and reduce neonatal mortality have been introduced into health programs in several countries.

Integrated Management of Newborn and Childhood Illness (IMNCI) developed by the World Health Organization (WHO) focuses on assessment of general danger signs in the examination of children presenting with illness at health care centers. The danger signs of severe illness included are history of difficulty feeding, movement only when stimulated, temperature below 35.5°C, temperature above 37.5°C, respiratory rate over 60 breaths per minute, severe chest in drawings and, history of convulsions. Assessment of these signs will result in a high overall sensitivity and specificity for predicting the need for hospitalization of a newborn in the first week of life. 10

If mothers know the appropriate manifestations of the causes of death in newborn (neonatal danger signs), it is possible to avert related mortality because of the health seeking behavior of mothers highly relies on their knowledge of neonatal danger signs. Knowledge or awareness of care of newborn properly, reduce the mortality and morbidity rate, mothers' good knowledge of neonatal danger signs, to create awareness for mothers on the importance of the early identifying NDSs.<sup>10</sup>

**SUMMARY-** After reviewing these the investigator felt there is a good to assess the knowledge regarding newborn danger signs among mothers of newborn thus, improve practice and learning needs can be developed.

### **CHAPTER-II**

### AIMS AND OBJECTIVE

### PROBLEM STATEMENT

"A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME (STP) ON KNOWLEDGE REGARDING SELECTED NEWBORN DANGER SIGNS AMONG MOTHERS OF NEWBORN IN SELECTED HOSPITALS OF LUCKNOW UTTAR PRADESH."

### **OBJECTIVES OF THE STUDY**

- 1. To assess the knowledge regarding newborn danger signs among mothers of newborn in selected hospitals of Uttar Pradesh.
- 2. To assess the effectiveness of Structured Teaching Programme (STP) regarding selected new born danger signs among mothers of newborn in selected hospitals of Uttar Pradesh.
- 3. To find out the association between pretest knowledge regarding newborn danger signs among mothers of newborn with their selected demographic variables.

### **OPERATIONAL DEFINITION**

**Assess** - It refers to evaluating the effectiveness of structure teaching program on knowledge regarding mother's knowledge regarding selected Newborn danger signs among mothers of newborn selected hospitals in Lucknow.

Effectiveness - It refers to the extent to which the structure teaching programme on Newborn danger signs among mothers of newbornn in improving the knowledge level of mothers by using the structured knowledge questionnaire.

**Structured Teaching Programme (STP)** - It refers to a systematically developed structured teaching programme designed on Newborn danger signs among mothers of newborn with the help of chart, and flash card in order to provide information regarding meaning, benefits importance of newborn danger signs among.

**Newborn danger signs** - It refers to signs in the neonatal period (0–28 days) which are non-specific and that indicates severe illness. Fever, lethargy, inability to feed, low temperature, fast breathing, persistent vomiting, convulsions, and pus draining/bleeding from umbilical area, lack of consciousness, yellow palm/sole/eye and eye discharge/redness.

**Mother of newborn** - It refers to postnatal mother who have a newborn of (10 28 days old) admitted in selected hospitals.

### RESEARCH HYPOTHESIS

Hypothesis is this statement of the relationship between two of more variables. In this study researcher hypothesis are

**H**<sub>01</sub>: There is no significant difference between pretest and posttest knowledge scores regarding Newborn danger signs among mothers of newborn.

H<sub>02</sub>: There is no significant association between pretest knowledge scores regarding newborn danger signs among mothers of newborn with their selected demographic variables.

**H**<sub>1</sub>: There is a significant difference between Pretest and posttest knowledge scores regarding newborn danger signs among mothers of newborn.

**H<sub>2</sub>:** There is a significant association between pretest knowledge scores regarding newborn danger signs among mothers of newborn with their selected demographic variables.

### **ASSUMPTION**

- There may be lack of knowledge among mothers of Newborn regarding Newborn danger signs.
- The mothers of Newborn will be cooperative and willing to express their knowledge regarding Newborn danger signs.
- Structured Teaching Programme (STP) may enhance the knowledge on newborn danger signs.

### **DELIMITATION**

- Study period was limited to 4 weeks.
- Study was limit to 60 samples.

### **CONCEPTUAL FRAMEWORK**

J.W. Kenny General System Model (1936). This model explains the breaking of whole things into parts and gaining knowledge about how the parts works together in a system and decision pertinent concept about them as well as making priduction about how these parts of whole will function behave and react.

### **INPUT**

Input is a process by which system is able to communicate or react with its environment. It is Define as any information or matter that enters into the system. In this study the investigator Asses the pretest level of knowledge regarding newborn danger signs among mothers of newborn and provide structured teaching programme on mothers of newborn.

### **THROUGHPUT**

It is common process by which a system transforms or creates and organizes input, resulting in a reorganization of the input. in the study the samples transform and organizes the information received from the structured teaching programme on mothers of newborn.

### **OUTPUT**

It is end product of a system .it is energy, matter or information given out by the system as a result of its processing in this study, it refers to the attainment of adequate knowledge on newborn danger signs among mothers of newborn. the investigator assesses the posttest level of knowledge.

### **FEEDBACK**

It is the evaluation or response of the system. feedback may be positive or negative in this feedback emphasize to strengthen the knowledge. The output is based on the information provide to school teachers. positive outcome indicates attainment of adequate knowledge and negative outcome indicate inadequate knowledge which may be used to strengthen the knowledge by providing the structured teaching programme again.

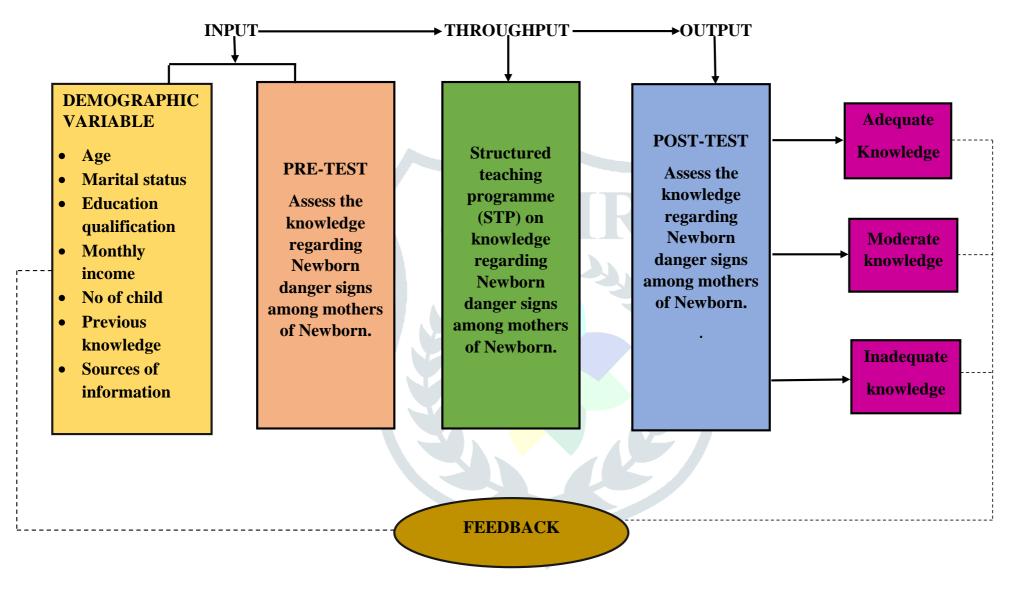


Fig.1- Conceptual frame work based on modified J. W. KENNY'S General System Model (1936)

### **SUMMARY**

This chapter deals with the statement of problem, objectives, operational definition, hypothesis, projected come and conceptual framework of the present study. This chapter help the investigator to conduct the study

### **CHAPTER-III**

### **REVIEW LITERATURE**

Literature review is a critical summary of research on a topic of interest, often prepared to put Research problem in context or the basic for an implementation project. Review of literature is defined as board comprehensive in depth systematic and critical review of scholarly publication in particular topic. The purpose of review of related literature was to gain an insight into various aspect of the problem under study such as design method, instrument, measure and techniques of data collection that may prove useful in the proposed project.

- 1. Reviews related to Newborn danger signs.
- 2. Reviews related to knowledge regarding Newborn danger signs among mothers of newborn.
- 3. Reviews related to effectiveness of structured teaching programme (STP) on knowledge regarding selected newborns danger sign.

### Reviews of related to Newborn danger signs-

A Descriptive Study was conducted Knowledge of neonatal danger signs, care seeking Practice and associated factors among postpartum mothers at in public health facilities of Ambo town, from February 1st to March 30th 2018 in Ambo town. A total of 404 mothers were interviewed during data collection making the response rate of 100%. In this study majority 371 (92%) of them were in the age group of 18–35 years old, 363 (89.9%) were married and 341 (84.2%) of them were from urban. This study concluded the level of postpartum mother's knowledge on NDSs and care-seeking practice for their newborn with danger sign is low in the study area as knowing those general danger signs are important for early detection of serious illness and seeking health care for their child from health facilities.<sup>11</sup>

A Descriptive Cross-Sectional study was conducted is to awareness of postnatal mother on the neonatal danger signs in rural community awareness on neonatal danger sing among rural post-natal mother wards of Tansen Municipality Nepal. Most of mothers (93.1%) delivered their newborn at any health facilities. 100% of mothers were prepared for the place of delivery (Health facility) and early preparation of essential expenditure. Most (94%) mothers heard about neonatal danger signs. Among them, 100% percent of mother aware about unable to suck as neonatal danger followed by fever (99.1%), breathing difficulties and jaundice (88.2%), umbilical cord infection (83.6%), watery stool/ blood in stool (69.1%), hypothermia (62.7%) and least number of mothers (18.2%) were aware about convulsion as a neonatal danger sign. Similarly, most of mothers (94.5%) got information through radio. Most of mothers (89%) did their self-

decision within 24 hours of danger signs for the treatments of sick newborn. 48.18% of mothers were aware on the neonatal danger's signs. The study was concluded was more the mature mother the more the awareness on neonatal danger sign, neonate mortality, a teaching must be provided on neonatal danger signs from the pregnancy to the delivery of baby.<sup>12</sup>

A Community Based Cross-Sectional study was conducted Knowledge of neonatal danger signs, care seeking Practice and associated factors among postpartum mothers at public health facilities in United Arab Emirates from June 2020 to August 2020. Simple random sampling method was used and the sample size was calculated as 150. Mothers of children aged below 1 year were included in the study. A semi-structured pre-tested questionnaire was used in this study for interview purposes. The finding prevalence of good knowledge of danger signs among mothers of children aged less than 1 year in this study was found out to be 28.6%. 91.2% of the mothers have reported having sought medical care when any of the mentioned Danger signs occurred whereas 8.7% of them had opted to treat at home. This study Concluded was coverage of maternal and child health services, the knowledge and awareness of the danger signs in neonates are fairly low in the mothers.<sup>13</sup>

A Study was conducted to assess the Knowledge of at least one key danger sign was significantly associated with being birth prepared Birth preparedness consisted of saving money, identifying Newborn danger signs knowledge of at least one of the defined key danger signs was present in 58.3% of all women: however, only 14.8% could name at least two signs. "Fast or difficulty breathing" was the most commonly known danger sign and referred to by almost 30% of the women. The response "fever" and "difficulty feeding" was given by approximately 20% of the women. The least known danger signs were "convulsions", "movement only when stimulated" and "hypothermia", stated by less than 5% of the respondents. This study concluded our findings indicate the need to enhance education of mothers in antenatal care as well as those discharged from health facilities after delivery. 14

A Cross-Sectional study conducted was assess the knowledge Intranatal post-natal newborn care practices in rural areas in rural areas of Navsari district, Gujarat, included 243 women who had one child aged 12 to 23 months preceding data collection. Objectives the maternal care in, Intranatal and Postnatal care practices and assess newborn care practices in rural areas. Mothers under study had adequate ANC check-ups. All the mothers had received Iron supplements during ANC but 72.8% of them completed it for 3 months. Majority (99.2%) had institutional delivery. More than one third (37.8%) of babies were bathed in less than 24 hours of birth. Most of the mothers (93.4%) had put substances on the umbilical cord. About 32% of the infants had received pre-lacteals feeds. The colostrum was fed by 90.9% of mothers. Only 56.4% mothers-initiated breast-feeding within 1 hour of birth. This study Concluded in majority of cases, correct practices regarding newborn care were observed among mothers and this should be promoted through improved coverage with existing health services. <sup>15</sup>

A Cross Sectional study was conducted to assess the knowledge neonatal dangers sign among recently delivered mothers from December 2014 to June 2015 among mothers who attend public health

institutions of Mekelle city, Simple random sampling technique was used to select the study participant's total of 350 mothers whose neonate aged 28 days. Fever was more commonly known danger sign by almost 81.4% of the mothers. The response "persistent vomiting" and "poor feeding" was given by 57.1% and 42% of the respondents respectively. The awareness of mothers of the remained neonatal danger signs, however, is very low which ranges from only 10.6% to 1.4% of mothers were aware of either of the remained eight neonatal danger signs. This study concluded Majority of mothers had low awareness of the majority of neonatal danger signs. Strengthening educational programs at a health facility or community level is highly recommended. But nearly half of mothers had low awareness of the neonatal danger signs. <sup>16</sup>

A Community based Descriptive was conducted Knowledge of Neonatal Danger Signs and Associated Factors Among Mothers of <6 Months Old Child and analytical study which used a multistage sampling technique to select 376 mothers and care-givers from four communities in 4 of the 17 Local Government Areas of Enugu State. To assess knowledge of more than three of the nine WHO recognized danger sign was poor (0.0-30.3%). Majority of the mothers had knowledge of one WHO recognized danger sign (95.2%). This study Concluded that Knowledge of mothers about the danger signs in newborn is preventable deaths 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.<sup>17</sup>

A Community-based Cross-Sectional study was conducted inadequate knowledge of neonatal danger sign among delivered women in Riyadh City of Saudi Arabia of Saudi mothers and caregivers towards the WHO neonate's danger signs. A total of 1428 women were included in the analysis. Only 37% of the participant's knowledge covered three or more danger signs. The frequently reported participants' knowledge of danger signs in this study was for yellow soles (48.0%), not feeding since birth or stopping to feed (46.0%), and signs of local infection (37.0%). The majority (69.0%) of the participants had experienced at least one of the danger signs with their baby. This study was concluesed mother's knowledge and awareness of neonatal danger signs to reduce infants' mortality and morbidity. <sup>18</sup>

A Community based Cross Sectional study was conducted in to assess the effectiveness teaching programme on knowledge postnatal mothers among newborn danger signs in community level 630 mothers structured interviewer administered pre-tested questionnaire was used to collect the data. The collected data were entered variables with P<0.2 in the bivariate analysis were included in to final model and statistical significance were declared at P< 0.05. Result: In this study 50.3% of mothers had good level of knowledge who knows three or more neonatal danger signs out of WHO stated 10 neonatal danger signs. This study Concluded revealed that mother's level of knowledge about neonatal danger signs were low. and community level and advocate to use media as source of information should be promoted.<sup>19</sup>

A facility-based Cross-Sectional study was conducted to assess knowledge of neonatal danger signs and its associated factors among mothers attending child vaccination centers among 351 mothers who attended health centers for child vaccination in Sheko District from March 17 to April 30, 2018. Data were collected by using structured questionnaires through face-to-face interviews. the 351 mothers interviewed,

39% (137) had good knowledge of neonatal danger signs. The study also found that mothers aged 29-40 years' educational status of primary and above attending≥4 antenatal care visits during pregnancy, and history of postnatal attendance after birth were significantly associated with good knowledge of neonatal danger signs. This study concluded the proportion of mothers with good knowledge of neonatal danger signs was low neonatal danger signs plus to avert the high magnitude of neonatal mortality.<sup>2</sup>

## Reviews related to knowledge regarding Newborn danger signs among mothers of newborn-

A pre-experimental study was conducted effectiveness of planned teaching programme on Knowledge Regarding Identification of Danger Signs in Neonates among Post-Natal Mothers Dadra and Nagar haveli, India 60 Postnatal mothers were selected by purposive sampling technique. Findings of the study revealed that the overall posttest mean score was 18.88 with standard deviation 3.147 and the responded knowledge were significantly higher than the overall mean pretest knowledge scores 11.20 with standard deviation 3.172. The study Concluesed by planned teaching programme was a suitable and effective method of enhancing the knowledge. There was a significant difference between the Pre and Post test score categories of Knowledge. Therefore, we can say that the intervention was very effective.<sup>21</sup>

A Community based Cross-Sectional study was to assess the knowledge maternal and child health services, the knowledge and awareness of the danger signs in neonates in United Arab Emirates from June 2020 to August 2020. Simple random sampling method was used and the sample size was calculated as 150. Mothers of children aged below 1 year were included in the study. A semi-structured pre-tested questionnaire was used in this study for interview purposes. The finding prevalence of good knowledge of danger signs among mothers of children aged less than 1 year in this study was found out to be 28.6%. 91.2% of the mothers have reported having sought medical care when any of the mentioned Danger signs occurred whereas 8.7% of them had opted to treat at home. This study Concluded In spite of extensive coverage of maternal and child health services, the knowledge and awareness of the danger signs in neonates are fairly low in the mothers more awareness and health education campaigns need to be implemented.<sup>22</sup>

A Descriptive study was conducted on to assess the knowledge regarding danger signs of neonatal illness among mothers in 110 mothers in postnatal ward of hospital by purposive sampling technique. The objective of this study is to assess the knowledge regarding danger signs of neonatal illness among mothers Data was collected by using self-structured questionnaire. The result of the study revealed that the mean score was 6.20 for the knowledge among the mothers regarding danger signs of neonatal illness. It was found that half of the mothers that are 61 out of 110 had average knowledge (55.5%) regarding danger signs in neonate illness, 46 respondents had average knowledge and. There was significant association between the knowledge among mothers regarding danger signs of neonatal illness and educational status of mothers at the level of 0.01 and with source of knowledge regarding health at the level of 0.05. This study concluded the findings of study conclude that there is need to enhance the knowledge among mothers regarding danger signs of neonatal illness.<sup>23</sup>

A Community-Based Cross-Sectional design study was conducted to assess the knowledge of neonatal danger signs medical care at a health facility among post-natal mothers in Dire Dawa from March 01/2019 to April 30/2019. Data were collected from 699 randomly selected mothers through a face-to-face interview. Bivariate logistic regression with p-value < 0.25 was entered into the multivariable logistic regression analysis. Finally, AOR with 95% confidence intervals at P-value < 0.05 was considered a significant association with the outcome variable. Results about 285 (40.8%) of mothers had good knowledge of neonatal danger signs, and 97.1% of mothers sought medical care at a health facility, those mothers received education on neonatal danger sign had a significant association with knowledge of neonatal danger signs. This study Concluded Maternal knowledge toward neonatal danger signs was low and a high number of mothers sought medical care at a health facility.<sup>24</sup>

A Community based Cross Sectional study was conducted to assess the level of maternal knowledge newborn danger signs and practice for their sick neonate was unsafe in Wolkite town from March to April; 2017.A total of 368 mothers who gave birth within 12 months prior to the study period was selected by using systematic random sampling technique. Pretested Structured questionnaire was used to collect data. In this study, 31.32% of mothers have good knowledge about neonatal danger sign. From a total of mothers, 64.5% respondents' practice for their sick neonate was unsafe. Mothers secondary and above educational level, income, place of birth and source of information were factors for having good knowledge. This study Concluded There was poor knowledge of mothers towards neonatal danger signs and unsafe practice.<sup>25</sup>

A community-based study was conducted to assess the knowledge newborn danger signs among postnatal mother on November 1, 2017, and December 30, 2017 757 mothers who were selected by stratified simple random sampling between. A structured interviewer-administered pretested questionnaire was used to collect the data. Data were entered into Epi Data, version 3.1, and for analysis. only 28.2% of mothers were knowledgeable about neonatal danger signs. Significant predictors of a good level of knowledge on newborn danger signs included those who attended secondary education, were urban residents, higher decision-making ability to seek neonatal health care, completed up-to-date immunisation of the infant, had heard about neonatal danger signs from health workers and had a history of neonatal death. this study concluesed by Educating women, increasing mothers' health service use and providing health education for mothers who attend pregnancy-related services showed a positive impact on their knowledge of neonatal danger signs and should therefore be promoted.<sup>26</sup>

A community-based cross-sectional study was conducted to assess maternal knowledge, healthcare-seeking behavior, and associated factors about neonatal danger signs from June 1 to 22, 2020 among postpartum mothers in Shashamane town. Systematic random sampling was employed then data was analyzed using at p < 0.05 were considered statistically significant. this study aimed to assess maternal knowledge, healthcare-seeking behavior, and associated factors about neonatal danger signs. Maternal knowledge of neonatal danger signs was poor. Giving health education about neonatal danger signs and early care seeking at health institutions is recommended. The study was concluesed was improved the maternal knowledge healthcare-seeking behavior among neonatal danger signs.  $^{27}$ 

A cross-sectional study was conducted to assess mothers' knowledge of neonatal danger signs, to promote early recognition of neonatal illness and reduce the delay in care seeking in a rural county of southwest of China. A total of 112 respondents were included from November 2020 to February 2021 among women who had babies aged 0–12 months and brought their babies to health care centres for immunization within the study period. Mothers who scored above average were considered to have relatively good knowledge whereas those who scored below average were considered to have relatively poor knowledge. Independent predictors of mothers' knowledge were identified by multivariable logistic regression analysis. This study aimed to examine the knowledge of neonatal danger signs and risk factors of poor knowledge among mothers in a rural county of southwest of China. The study was concluesed by mothers' knowledge about neonatal danger signs in rural China is poor even though the coverage of maternal and child health care services is expanded.<sup>28</sup>

A community-based cross-sectional study was conducted to assess the knowledge of neonatal danger signs among postnatal mother who have delivered live birth in the past six months in three districts of Northwest Ethiopia were the source populations. A total of 2424 mothers were selected using two-stage stratified cluster random sampling technique. A pretested and semi-structured interviewer-administered questionnaire was used to collect data from eligible mothers. Hospital staff during delivery, and poor mothers' knowledge on neonatal danger signs, were the predictors of mother's experience on neonatal danger signs. This study concluded was the knowledge of mothers on neonatal danger signs is high, the practice or experience in using their knowledge is very low. <sup>29</sup>

A community-based cross-sectional study was conducted to assess the mother's knowledge of neonatal danger signs and health-seeking practices. from July 1st to August 10th in Debretabor town, northwest Ethiopia and cluster sampling technique was used to select 772 mothers. A semi-structured, pretested and interviewer-administered questionnaire mother's knowledge of neonatal danger signs and health-seeking practices. Neonatal mortality is increasing the mother's knowledge of neonatal danger signs and health-seeking practices. Northwest Ethiopia. Our findings show that maternal knowledge of neonatal danger signs was low. The study was concluesed by improving mother's knowledge of neonatal danger signs and health-seeking practices.<sup>30</sup>

A Facility based cross sectional study was conducted to assess the level of knowledge of neonatal danger signs and associated factors among mothers by using structured questionnaire. A total of 190 mothers were involved and the data was analyzed P-value less than or equal to 0.05 was considered as statistically significant difference. The response rate was 182 (95.8%). All 182 mothers interviewed, only 87(47.8%) of respondents were knowledgeable about Newborn danger sign. The most common danger sign recognized by mothers were persistent vomiting 136(74.7%), Lethargy/unconsciousness134 (73.6%), Poor sucking/Unable to feed 127(69.8%), but 53(29.1%) of mothers of the neonatal danger signs, postnatal mothers were 57.75 times knowledgeable than as compared with those who were not literate. This study

concluesed by the knowledge of the postnatal mothers was good and majority of the health professionals had commitment to provide information on the neonatal dangers' signs for mothers. <sup>31</sup>

# Reviews related to effectiveness of structured teaching programme (STP) on knowledge regarding selected newborn danger sign

A descriptive study conducted was to assess effectiveness of a structured teaching programme (STP) Knowledge Regarding New Born Danger Signs among The Post Natal Mothers. 50 patients from selected hospitals of Bangalore were enrolled in the study and assessed for existing level of knowledge. the pre-test and post -test knowledge assessment was recorded. The mean age of the subjects was  $25.08\pm4.68$ . Majority of the subjects were residing in urban community. The mean pre-test score was  $17.24\pm3.73$  and the post-test mean score was higher than the pre-test. $28.76\pm2.87$  and this difference was found to be statistically significant at p value less than 0.001. This study was concluded that STP may be routinely used as an effective way to improve the post-natal mother's knowledge about newborn danger signs.  $^{32}$ 

A Quasi- Experimental design was to assess the effectiveness structured teaching programme on newborn dander signs among postnatal mothers' preventive measures, educating mothers and actions to reduce newborn mortality rate at Jayanagar General Hospital, Bangalore were the samples and the sample size was 50. The Post-natal mothers were selected by purposive sampling technique. Findings of the study revealed that the overall post -test mean score was 36.86 (89.32%) with standard deviation 3.89 and the respondent's knowledge were significantly higher than, the overall mean pre-test knowledge scores 9.76 (25.87%) with standard deviation 1.3 and computed paired t 'value 23.78 is higher than table value 2.56 at P<0.001 level. The study was concluded structured teaching programme on new born dander signs among postnatal mothers was found to be effectiveness. The findings of the study can be used in the areas of nursing practice, nursing education nursing administration, and nursing research.<sup>33</sup>

A Pre-Experimental study was conducted to assess the Effectiveness of Structured Teaching Program on knowledge regarding newborn care and danger signs of new born among the Postnatal mothers in Kirumambakkam PHC, Pondicherry. Non-probability purposive sampling technique was used to select the samples. The study findings revealed that the pretest mean score of knowledge was 24.23 with standard deviation of 5.981 and the posttest mean score was 40.52with standard deviation of 8.902. the calculated paired 't' value 10.50 was found to be statistically highly significant at p<0.001 level of knowledge which showed the effectiveness of structured teaching program regarding newborn care and danger signs of new born among the postnatal mothers. This study Concluded assess the knowledge about neonatal care and danger signs was.<sup>34</sup>

A Quasi-Experimental study was conducted study was to assess the effectiveness of structured teaching program on knowledge regarding selected newborn danger signs among antenatal mothers Participants were recruited from Fortis Hospital, Bannerghatta Road, Bengaluru. Nonprobability purposive sampling techniques were adopted to select the 60 antenatal mothers. Administration of structured teaching program on selected newborn danger signs is done for antenatal mothers. Day 7 post-test was done using the same structured knowledge questionnaire. The study revealed that structured teaching program on prevention and

management of selected newborn danger signs among antenatal mothers was effective in enhancing knowledge of antenatal mother as indicated by significant 0.05 level of significance. There was a statistically significant association between the knowledge and selected demographic variable of antenatal mothers. Conclusion: Structured teaching program was effective in increasing the knowledge of antenatal mothers regarding selected newborn danger signs. <sup>35</sup>

A descriptive cross-sectional study was conducted was to effectiveness of structured teaching program awareness regarding newborn danger signs among prenatal. The total duration of the study was from September 5, 2018 to September 19, 2018 hospital of Rupandehi. 56 mothers selected through non probability purposive sampling method. Statistical Package for Social Science software (SPSS) version 20.0. The findings of the study mothers' level of awareness regarding newborn danger signs with education status (p=0.001). Based on the study findings, it is concluded that still half of the respondents had low awareness regarding newborn danger signs. If all the mothers were aware regarding danger signs of their newborns. This study concluesed by to aware the prenatal mothers help structured teaching program through to reduce newborn morbidity and mortality. Thus, it is recommended to concerned authority to conduct awareness program to mothers regarding newborn danger signs.<sup>36</sup>

A pre-experimental research study conducted to evaluate the effectiveness on structured teaching program on knowledge and prevention of hypothermia in newborn among mothers. One group pretest, post-test design was used 30 postnatal mothers were selected by nonprobability sampling and pretest questionnaire was administered through structured interview schedule. After STP 7 days after posttest was conducted on same group. Results were analysed by 't' test. The results revealed that there was statistically significant association between knowledge of mothers and age and religion, and remaining three variables there was no statistically significant association (p < 0.05). The STP was the best teaching strategy as it the knowledge on prevention of hypothermia. <sup>37</sup>

A Pre-Experimental study was conducted to assess the Effectiveness of structured teaching program on knowledge regarding birth asphyxia among staff nurses birth process takes only few hours' phase of life. The study was conducted in a tertiary hospital at Bangalore, Karnataka, India. The mean post- test knowledge score (26.03) was higher than the mean pre-test (17.8). The scores predicted the significant difference (8.23) at p level. The calculated "t" value of (5.71) at p the study concluded that structured teaching programme (STP) was effective to increase the knowledge of staff nurses regarding birth asphyxia. Among socio-demographic variables none had association with the knowledge of staff nurses.<sup>38</sup>

A study was conducted Quantitative approach with Pre- Experimental Design was used to study to assess the Effectiveness of STP knowledge on newborn danger signs among postnatal mothers. Sixty postnatal mothers were selected from tertiary care hospital. The Purposive sampling techniques was used to select the study subjected by using Structured Knowledge questionnaire. The results show that the overall mean pre-test knowledge score of postnatal mothers was 19.8 and mean post-test knowledge score of postnatal mothers was 26.28 and the mean difference was 6.48. This revealed that the STP was an effective method in improving mother's knowledge on postnatal care. There was no significant association found between pre-test knowledge score with their demographic variables except occupation. This study

concluded the findings of the study STP was effective in enhancing the knowledge of postnatal mothers on newborn danger signs .<sup>39</sup>

A Quasi-experimental study was conducted to assess the effectiveness of structured teaching program on knowledge regarding selected newborn danger signs among antenatal mothers from Fortis Hospital, Bannerghatta Road, Bengaluru. Nonprobability purposive sampling techniques were adopted to select the 60 antenatal mothers. Pre-test was conducted of the study was find out the effectiveness of structured teaching program on knowledge regarding selected newborn danger signs among antenatal mothers on prevention and management of selected newborn danger signs among antenatal mothers was effective in enhancing knowledge of antenatal mother as indicated by significant 0.05 level of significance. There was a statistically significant association between the knowledge and selected demographic variable of antenatal mothers. This study concluesed by Structured teaching program was effective in increasing the knowledge of antenatal mothers regarding selected newborn danger signs.<sup>40</sup>

**SUMMARY**-In sum, the literature review helped the investigator to establish the need for the study and develop the tool in order to achieve the objectives of the study.

### **CHAPTER 1V**

### **METHODOLOGY**

This chapter deals with the description of the research methodology adopted by the investigator to assess the effectiveness of structure teaching programme regarding Newborn danger signs among mothers of newborn admitted in selected hospitals.

Methodology is the most important part of any research study, which enables the researcher to form a blue print for the study undertaken. Research methodology refers to the controlled investigations related to the ways of obtaining, organizing and analyzing data. Methodological studies address the development, validation, and evaluation of research instrument and techniques.

The steps which were undertaken to conduct the study include: research approach, research design, research setting, population, sample and sampling technique, development and description of tool, procedure and technique of data collection, pilot study and a plan for data analysis.<sup>41</sup>

### RESEARCH APPROACH

In view of the nature of the problem selected for the present study and the objectives to be accomplished, an evaluative approach was considered appropriate for the present study.<sup>42</sup>

In the present study, the analyst wished to assess the improvement in knowledge of mothers of newborn selected hospitals in Lucknow after the administration of structure teaching programme (STP) on newborn danger sign. Evaluative research designs are intended to provide data on the success of action programs, method, procedure or product to assess its quality, applicability, feasibility of some meaningful criterion. Hence the research approach received for this investigation was an evaluative approach

### RESEARCH DESIGN

The research design refers to the investigator overall plan or blue print obtaining answers to the research questions, testing hypothesis and how to handle some of the difficulties encountered during the research process. The research design spells out the strategies that the researcher adopts to develop information that is accurate, objective and interpretable.  $^{43}$ 

The selection of design depends upon the purpose of the study, research approach and variables to be studied.

The research design used for the present study was Quasi Experimental one group pre- test post- test only design.

Table No.1 -Research design

Sample	Pretest	Intervention	Posttest
	$O_1$	X	$\mathbf{O}_2$
Sample of 60	Assessment of	Structured teaching	Assessment of
mother of	knowledge before	programme on	knowledge after
newborn	structured teaching	newborn danger	structured teaching
	programme	signs among	programme
		Mothers of newborn	

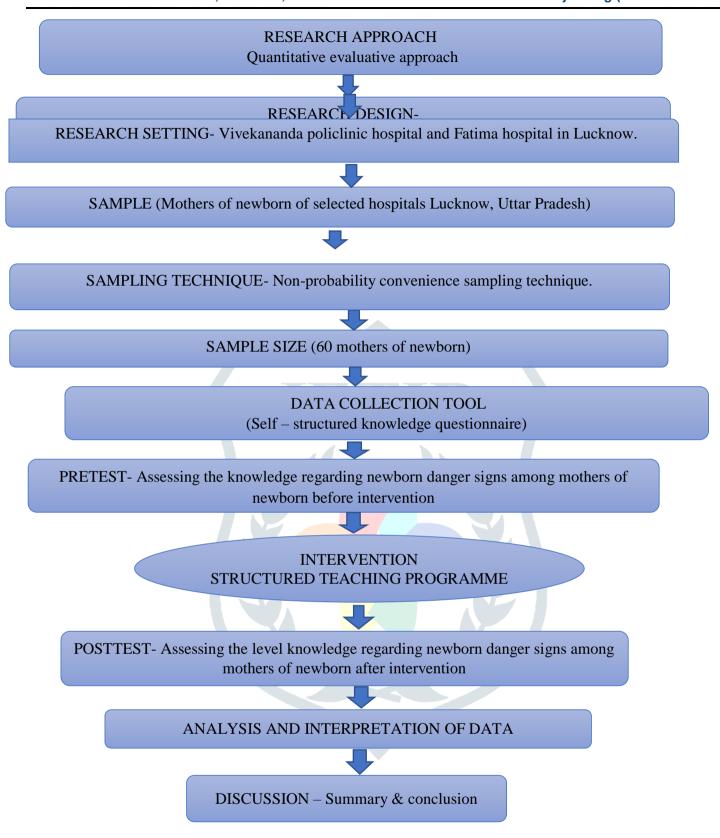


Fig.2- Schematic presentation of research design

### RESEARCH SETTING

Setting is a general location and condition in which data collection takes place in the study.<sup>44</sup>

The study was conducted at hospitals, Vivekananda policlinic hospital and Fatima hospital in Lucknow Uttar Pradesh.

### **VARIABLES:**

Variables are qualities, properties or characteristics of the person, things or situation that change or vary. 45

### **Independent variables**

In the present study, dependent variables were Structured teaching programme regarding selected Newborn danger signs.

### Dependent variable

In the present study, independent variables were Knowledge regarding Newborn danger signs among mothers of newborn.

### Socio demographic variables

In the present study, demographic variables are i.e., age of mother, religion, area of resident, type of family, education qualification, mother occupation, monthly income of family, number of children, any previous knowledge about newborn problems and source of information.

### **POPULATION**

The population is a distinct group of individuals, whether that group comprises a group of people with a common characteristic. Thus, any selection of individuals grouped together by a common feature can be said to be a population. The population of present study consisted of mothers of newborn those who was present in selected hospital in Lucknow, at the time of data collection.

### TARGET POPULATION

The target population is defined as the "entire aggregation of cases that meets designated set of criteria". 46

The target population of present study consisted of mothers of newborn selected hospitals in Lucknow.

### **ACCESSIBLE POPULATION**

The accessible population of the present study includes mothers of Newborn in Vivekananda policlinic hospital and Fatima hospital in Lucknow.

### **SAMPLE & SAMPLE SIZE**

"A Sample consists of a sub-set of a population selected to participate in a research study." <sup>47</sup>

The sample used for this study was 60 mothers of Newborn at Vivekananda policlinic hospital and Fatima hospital in Lucknow Uttar Pradesh those who full fill the inclusion criteria.

### **SAMPLING TECHNIQUE**

Sampling refers to the process of selecting a portion of the population to represent the entire population.<sup>48</sup>

The investigator had utilized non-probability convenient sampling technique in which convenient sampling technique had been used for the selection of the subjects.

### CRITERIA FOR THE SELECTION OF THE SAMPLE

### **INCLUSION CRITERIA**

- Mothers who were present at the time of data collection.
- Mothers who were ready to participate in the study.

### **EXCLUSION CRITERIA**

- Mothers who were sick/ill.
- Mothers who were not able to read & write Hindi.

### DEVELOPMENT OF THE TOOL

The tool developed for the study was, structured teaching programme lession plan through prepare the questionnaire to assess the knowledge regarding selected Newborn danger signs among mothers of newborn. The tool was translated in to Hindi for the better understanding of mothers. The tool was developed based on;

- Past clinical experience of the student investigator
- Related review of literature (books, journals, reports, and articles, published and unpublished studies) was reviewed and used to develop the tool.
- Guidance and consultation with subject experts.
- Objectives of the study and blue print.
- English tools translated into Hindi

### DEVELOPMENT OF STRUCTURED TEACHING PROGRAMME (STP)-

The idea to produce the particular Structured Teaching Programme on Newborn danger sign lesion plan was developed by the researcher by keeping the following points in mind.

- Structured Teaching Programme is one of the accepted teaching strategies.
- Feasible to explain the Newborn danger sign lesion plan.
- Assuming that it will promote the interest of the mothers and ultimately helps in Improving the knowledge and practice regarding Newborn danger sign among mothers of New born.

### **DESCRIPTION OF THE TOOL**

The investigator has developed a structured knowledge questionnaire after reviewing the literature and considering the opinion of paediatric nursing experts, to assess the effectiveness of structured teaching program on knowledge regarding newborn danger signs among mothers of newborn at selected hospitals of Lucknow.

The investigator develops the tools were structured knowledge questionnaire and checklist. It consists of part I, and part II

### SECTION -I: Socio demographic Performa.

### SECTION -II: Structured knowledge questionnaire of Newborn danger signs.

**SECTION-I-** Section -I dealt with demographic data which was used to collect the characteristics of the samples with an instruction to participants. It contained 10 items such as age of mother, religion, area of resident, type of family, education qualification, mother occupation, monthly income of family, number of children, any previous knowledge about newborn problems and source of information.

**SECTION-II-** Section -II dealt with structured knowledge questionnaire on newborn danger signs. It contained 34 items.

### DEVELOPMENT CRITERIA FOR KNOWLEDGE SCORE

In order to achieve the objectives of the study opinion from the statistician, guide and experts was taken to categorize the sample according to their knowledge.

Table No. 2- Grading of structured knowledge questionnaire score

S.No.	Knowledge Score Ra	ange Category
1.	1-11	Inadequate
2.	11-22	Moderate
3.	22-34	Adequate

### VALIDATION OF THE TOOL

The validity of an instrument is the determination of the extent to which the instrument reflects the abstract construct that was examined.<sup>49</sup>

The tool was given to seven experts in the field of Paediatric Department for content validity and one research statistician. All comments and suggestions given by the experts were duly considered and corrections were made after discussion with the research guide. The tool was finalized in English by the investigator and Hindi translation was done. The final tool was edited by language expert.

### RELIABILITY OF THE TOOL

Reliability of the instrument is the degree of consistency with which it measures the attribute it is supposed to measure.<sup>50</sup>

To establish the reliability, the questionnaire was administered to the 6-sample other than study sample. The test-retest method was used to estimate homogeneity. The reliability was found to be 0.79 for the knowledge. The tool was found to be valid, reliable and feasible for the purpose of study.

### **PILOT STUDY**

"Pilot study is a trial study carried out before a research design is finalized to assist in defining the research question or to test the feasibility, reliability, and validity of the proposed study design." <sup>51</sup>

The pilot study was conducted Vatsalya Hospital Research Centre, Lucknow. Formal permission was obtained from the Medical Officer. Pilot study was conducted on 6 mothers of newborn. The knowledge regarding newborn danger signs among mothers of new born were assessed with the prepared self-structured questionnaire. The structured teaching program was given with the help of lession plan. The result of the pilot study showed that there was an inadequate knowledge regarding newborn danger signs among mothers of new born among in pre-test and gained moderate knowledge in post-test.

The data collected during pre-test and post-test were coded numerically and tabulated and entered into a spread sheet by keyboard entry. A concise analysis was done using the statistics. During the pilot study did not face any problem and found that the study is feasible.

The pilot study also helped to estimate the total time required to conduct main study including the budget.

The collected data was analyzed using descriptive and inferential statistics. The significant difference between the pre-test and post-test score was found using paired t' test.

### PROCEDURE FOR DATA COLLECTION-

"Data collection is the identification of mothers of newborn and the precise, systematic gathering of information (data) relevant to the research purpose or the specific objectives, questions, or hypothesis of a study."<sup>52</sup>

The data collection was done in Vivekananda policlinic hospital and Fatima hospital in Lucknow. Formal approval was obtained from nursing superintendent of both hospitals and collection was done for a month. The data were collected from mothers of newborn by convenient sampling technique by lottery method. The investigator selected the sample from selected hospitals, the mothers of newborn present in ward IPD & OPD paediatric and NICU. Each mothers give the questionnaire tool. Based on selected criteria 60 sample were selected by using non-probability convenience sampling technique.

Firstly, pre-test was conducted through self-structured knowledge questionnaire was administered to collect the data, to assess the level of knowledge among mothers of newborn. after the pre-test, the investigator was administered the structured teaching program on newborn danger signs among mothers of new born for 45 minutes, then the post-test was done by using same self-structured knowledge questionnaire after 7 days on the same mothers of newborn to assess their post-test knowledge. The investigator thanked all the participants for their cooperation. Confidentiality was assured throughout the study. Termination of data collection procedure was done by thanking each mother of newborn for their kind participation and cooperation.

### ETHICAL CONSIDERATIONS

"The ethical principles have to be considered before conducting any research i.e., the principle of respect for persons, beneficence and justice that are relevant to the conduct of study." <sup>53</sup>

An ethical clearance certificate was obtained from the research ethical committee of Rama College faculty of Nursing, Mandhana, Kanpur after presenting the research proposal with condition not to violate the right of human being/ animals, formal permission was also obtained from Vivekananda policlinic hospital and Fatima hospital in Lucknow. Before conducting the study, informed consent was taken from the study participants after explaining the purpose of the study to them. Written inform consent was obtained from the study subjects regarding their willingness to participate in the research project. The purpose for carrying out research project was explained to the subjects and assurance of confidentiality was given

### PLAN FOR DATA ANALYSIS

After coding the collected data, it was transferred to the master sheet. Then the data was analyzed by using descriptive and inferential statistics. Descriptive statistics include frequency, percentage, mean, mean% and standard deviation was used to explain the demographic variables and to compute the knowledge of mothers of newborn regarding optimal Newborn danger signs.

The investigator adopted Inferential statistics include the chi-square test was used to find out the association between demographic variables. Paired 't' test was used to find out the knowledge difference between pretest and post- test. Karl Pearson method used to find out the correlation. The data was presented in the form of tables and figures.

**SUMMARY:** -This chapter deals with the research approach, variables, research design, research setting, Population, target population, accessible population, sample & sampling technique, inclusion and exclusion criteria, selection & development of tool, description of the tool, validity of the tool, reliability of the tool, pilot study, data collection procedure, ethical considerations and plan of data analysis.

### **CHAPTER V**

### DATA ANALYSIS AND INTERPRETATION

Results or Analysis is defined as categorizing, ordering, manipulating and summarizing of data to reduce it to intelligible and interpretation form so that, research problem can be studied and tested including relationship between the variables.<sup>53</sup>

This chapter deals with analysis and interpretation of data collection to assess the effectiveness of structured teaching programme regarding newborn danger signs among mothers of newborn in selected hospitals U.P.

The samples are selected by non-probability convenience sampling technique. The data was collected from 60 samples using structured knowledge questionnaire for assess the knowledge effectiveness of Structured teaching programme regarding newborn danger signs among mothers of newborn.

### DATA PRESENTATION

The result of data analysis is organized and presented under the following broad heading: **Section I-** Frequency and percentage wise distribution of demographic variables of newborn danger signs among mothers of newborn.

**Section II** -Assessment of knowledge of the mothers of newborn according to the pretest and posttest knowledge level of newborn danger signs.

**Section III-** Comparison of pretest and posttest knowledge level regarding newborn danger signs among mothers of newborn in selected hospitals Lucknow U.P

**Section IV** -Effectiveness of Structured teaching programme on knowledge regarding newborn danger signs among mothers of newborn in selected hospitals Lucknow U.P.

**Section V** - Association of the pre-test level of knowledge regarding newborn danger signs among mothers of newborn in selected demographic variables.

### **SECTION-I**

FREQUENCY AND PERCENTAGE WISE DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF NEWBORN DANGER SINGS AMONG MOTHERS OF NEWBORN

Table no 3: -Frequency and percentage wise distribution of mothers of newborn according to their age.

Age of mother in year	Frequency	Percent (%)
20 -25 year	25	41.7
26- 30 year	33	55.0
31- 35 year	2	3.3
Total	60	100.0

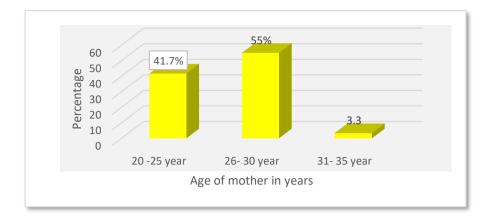


Figure No.3. Bar diagram shows Percentage wise distribution of mothers of newborn according to their age

Table no3 & figure no 3 show that Percentage wise distribution of mothers of newborn. The data represent that majority 33 (55.0%) are 26-30 years and of age group 20-25 years are 25(41.7%) age group 30-35 years' age group 2(3.3%).

Table no 4: -Frequency and percentage wise distribution of mothers of newborn according to their religion.

Religion	Frequency	Percent
Hindu	38	63.3
Muslim	22	36.7
Total	60	100.0

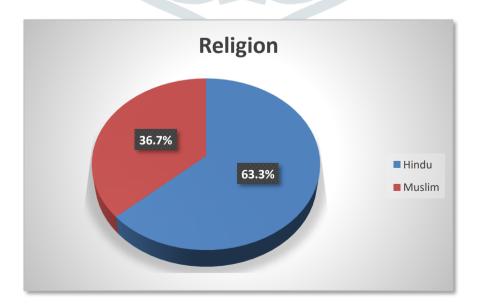


Figure No. 4 – Pie diagram shows Percentage wise distribution of mothers of newborn according to their religion.

The above table no.4 & fig.4 Percentage wise distribution of religion mother of newborn. The data represent that majority 38 (63.3%) Hindu religion, 22(36.7%) Muslim religion and there no Christian and others.

Table No.5 -Percentage and frequency distribution of mothers of newborn according to their area of resident.

(N=60)

Area of resident	Frequency	Percent
Rural	22	36.7
Urban	38	63.3
Total	60	100.0

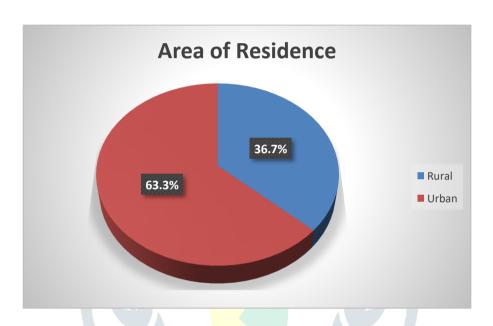
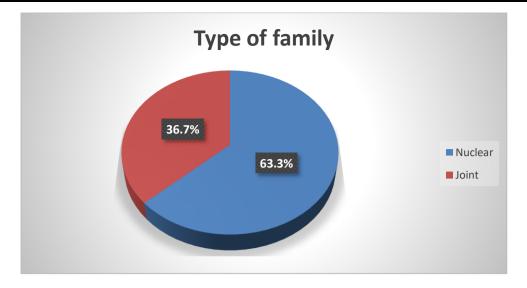


Figure No. 5 -Pie diagram shows Percentage wise distribution of mothers of newborn according to their Area of resident.

The above table no.5 & fig.5 shows percentage wise distribution of area of resident of mothers of newborn. The data represent that majority 38 (63.3%) urban and rural 22(36.7%).

Table No.6 -Percentage and frequency distribution of mothers of newborn according to their Type of family.

Type of family	Frequency	Percent	_
Nuclear	38	63.3	_
Joint	22	36.7	
Total	60	100.0	



FigureNo.6 – Pie diagram shows Percentage wise distribution of mothers of newborn according to their type of family.

The above table no.6 & fig.6 shows Percentage wise distribution of type of family of mother of newborn. The data represent that majority 38 (63.3%) are joint family ,22(36.7%) nuclear family are mothers of newborn.

Table.no.7 Frequency and percentage wise distribution of mothers of newborn according to their educational status. (N=60)

<b>Educational Qualification</b>	Frequency	Percent
High School	16	26.7
Intermediate	31	51.7
Graduation	13	21.7
Total	60	100.0



Fig. 7. Bar diagram shows percentage wise distribution of mothers of newborn according to their educational status.

The above table no.7 & fig.7 shows percentage wise distribution of educational status of mothers of newborn. The data represent highest percentage of mother's education Intermediate 31 (51.7%) were high school 16 (26.7%) were Graduate 13(21.7%).

Table No. 8 - Percentage and frequency distribution of mothers of newborn according to their occupation.

(N=60)

Mother occupation	Frequency	Percent
House wife	34	56.7
Private employee	17	28.3
Government employee	9	15.0
Total	60	100.0

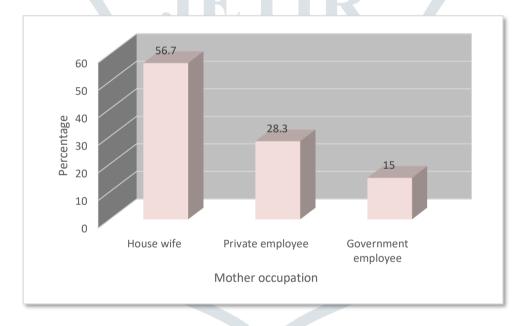


Figure No.8- bar diagram shows Percentage wise distribution of mothers of newborn according to their occupation.

The above table no.8 and fig.8 shows Percentage wise distribution of occupation mothers of newborn. The data represent that majority 34 (56.7%) are house wifes, 17 (28.3%) are private job 9 (15.0%) are government job.

Table No. 9- Percentage and frequency distribution of mothers of newborn according to their monthly income of family.

(N=60)

Monthly income of family in rupee	Frequency	Percent
Rs.10000/- to Rs 20000/-	34	56.7
Rs.20001/- to Rs 30000/-	19	31.7
Rs.30001/- to Rs 40000/-	7	11.7
Total	60	100.0

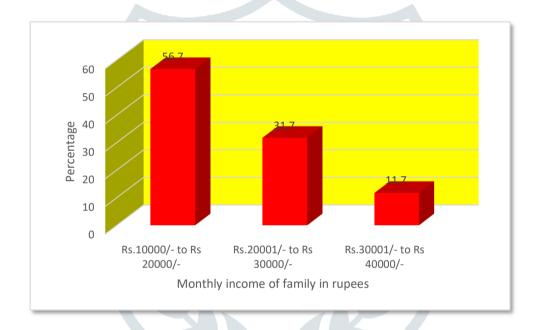


Figure No.9- Bar diagram show Percentage wise distribution of mothers of newborn according to their monthly income of family.

The above table no.9 & fig.9 show the percentage was distribution of mothers of newborn according to monthly income of family monthly income. The bar diagram represents the most of mothers of newborn 34 (56.7 %) had mothers' monthly income of family of Rs.10000/- to 20,000 per month ,19(31.7%) had mother's monthly income of family of < Rs20001/ to-30000/per month and 7 (11.7%) had mother's monthly income of family of mothers of <Rs. 30001 – Rs. 40,000.

Table.no.10 Frequency and percentage wise distribution of mothers of newborn according to number of children.

(N=60)

Number of children	Frequency	Percent	
One	28	46.7	
Two	22	36.7	
Three	10	16.6	
Total	60	100.0	

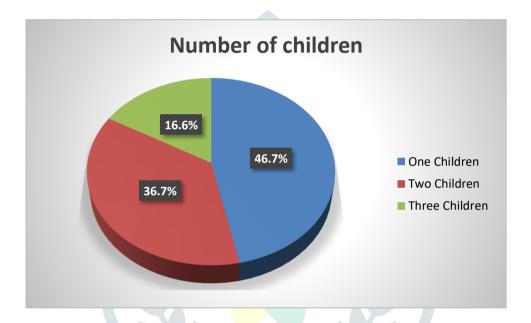


Fig.10. Pie diagram shows percentage wise distribution of mothers of newborn according to number of living children.

The above table no.10 & fig.10 shows percentage wise distribution of number of living children of mothers of newborn. The data represent that majority 28(46.7%) were have one child, 22 (36.7%) were have two children, 10 (16.6%) were have three children.

Table.no.11 Frequency and percentage wise distribution of mothers of newborn according to previous knowledge about newborn problems.

Any previous knowledge about			
newborn problems	Frequency	Percent	
Yes	17	28.3	
No	43	71.7	
Total	60	100.0	

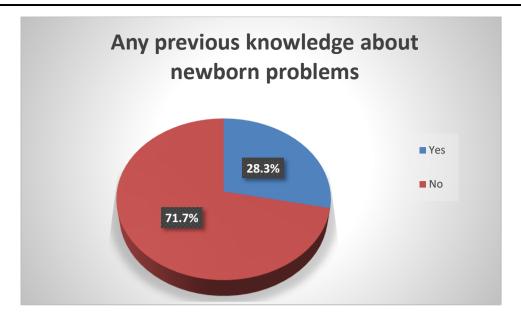


Fig. 11. Pie diagram shows percentage wise distribution of mothers of newborn according

to previous knowledge about newborn problems.

The above table no.14 and fig.13 shows percentage wise distribution of mothers of newborn according to previous knowledge about newborn problems. The data represents the majority of the mothers of newborn 43(71.7%), had received no previous knowledge about newborn problems, 17(28.3%) had previous knowledge about newborn problems.

Table No.12 -Percentage and frequency distribution of mothers of newborn according to source of information.

Source of information	Frequency	Percent
Friend & Family member	30	50.0
Health care worker	30	50.0
Total	60	100.0

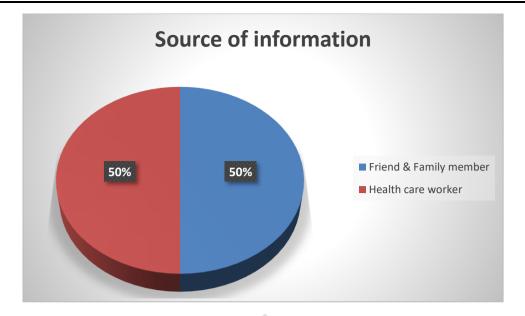


Figure No. 12 - Pie diagram shows Percentage wise distribution of mothers of newborn according to source of information.

The above table no.12 & fig.12 Percentage wise distribution of mothers of newborn according to source of information mothers of newborn pie diagram represent that majority of the mothers of newborn 30 (50 %) had received information from health care workers,30 (50%) had received information from friends and family members in newborn danger signs.

### **SECTION-II**

Assessment of knowledge of the mothers of newborn according to pre- test and posttest knowledge level on newborn danger signs

Table No.13: Distribution of knowledge level of mothers of newborn according to pretest.

	Y		
re knowledge level	Frequency	Percent	
nadequate	21	35.0	
<b>1</b> oderate	39	65.0	
'otal	60	100.0	

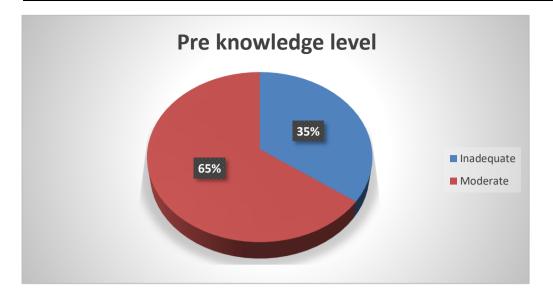


Figure no.13 Pie diagram shows distribution of knowledge level of mothers according to pre-test.

The above table no.13 & fig.13 pie diagram indicates that in pre-test level of knowledge majority 21(35.0%) mothers of newborn had inadequate knowledge, 39(65%) mothers of newborn had moderate knowledge and none of the mothers had adequate knowledge.

Table No.14: Distribution of knowledge level of mothers of newborn according to posttest.

Post knowledge level	Frequency	Percent
Moderate	37	61.7
Adequate	23	38.3
Total	60	100.0

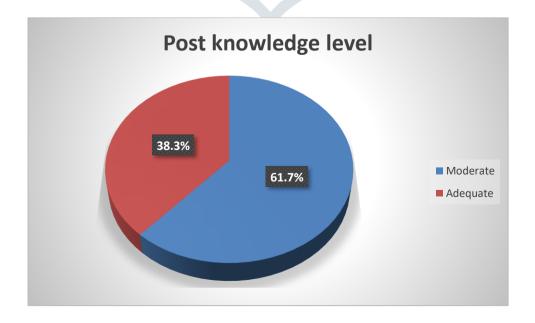


Figure no.14: Pie diagram shows diagram showing distribution of posttest knowledge level of mothers according to post test.

The above table no.14 & fig.14 shows that of posttest level of knowledge mothers of newborn post-test 37(61.70%) mothers of newborn had adequate knowledge, 23(38.3%) mothers of newborn had moderate and none of the mothers had inadequate knowledge.

### **SECTION III**

Effectiveness of Structured teaching programme regarding newborn danger signs among mothers of newborn in selected hospitals U.P.

Table no. 15: Frequency, Mean, & SD percentage, Paired 't' test of structured knowledge questionnaire.

(N=60)

	Inadequate		Moderate		Adequate	Mean±SD % Mean Change
	N	%	N	%	N %	
Pre Knowledge	21	35	39	65	0 0	12.23±2.17
Post Knowledge	0	0	37	61.7	23 38.3	76.37% 21.57±2.81

0.05 level of significance

Table no15 shows that the pretest Mean±SD of score were 12.23±2.17and posttest Mean±SD score were 21.57±2.81 mean percentage 76.37%. The calculated t values were -19.77 which shows significant at the <0.05 level of significance.

Therefore, the finding implied that the structured teaching programme had significant effect in the improvement of knowledge regarding newborn danger signs among mothers of newborn. Hence, the formulated research hypothesis H<sub>1</sub> was accepted and H<sub>01</sub> was rejected because there were significant differences between pre-test and post-test knowledge regarding newborn danger signs among mothers of newborn.

### **SECTION-IV**

Association of the pre- test level of knowledge regarding newborn danger signs among mothers of newborn in with their selected demographic variables.

Table no. 16. Association of the selected demographic variables with pretest level of knowledge regarding newborn danger signs among mothers with their selected demographic variables.

(N=60)

Structured knowledge Questionnaire									
Demograph	Pre kn	owledge l	χ2 values	p-value					
Var	Inadequate		Moderate		(df)				
		N	%	N	%				
Age of mother	20 -25 year	11	52.4%	14	35.9%		0.376 <sup>NS</sup>		
in year	26- 30 year	9	42.9%	24	61.5%	1.95 (2)			
	31- 35 year	1	4.8%	1	2.6%				
	36 - 40 year	0	.0%	0	.0%				
Religion	Hindu	13	61.9%	25	64.1%		0.866 <sup>NS</sup>		
	Muslim	8	38.1%	14	35.9%	0.028 (1)			
	Christian	0	.0%	0	.0%	0.028 (1)			
	Other	0	.0%	0	.0%				
Area of resident	Rural	7	33.3%	15	38.5%	0.16 (1)	0.694 <sup>NS</sup>		
	Urban	14	66.7%	24	61.5%	0.10 (1)			
Type of family	Nuclear	13	61.9%	25	64.1%	0.028 (1)	$0.866^{NS}$		
	Joint	8	38.1%	14	35.9%	0.020 (1)			
Educational Qualification	High School	3	14.3%	13	33.3%				
	Intermediate	13	61.9%	18	46.2%	2.58 (2)	$0.275^{NS}$		
	Graduation	5	23.8%	8	20.5%				
	Postgraduation	0	.0%	0	.0%				
Mother occupation	House wife	11	52.4%	23	59.0%	1.84 (2)	0.399		
	Private employee	8	38.1%	9	23.1%				

	Government employee	2	9.5%	7	17.9%		
Monthly income of family in	Self-employee	0	.0%	0	.0%		
	Rs.10000/- to Rs 20000/-	16	76.2%	18	46.2%		
rupee	Rs.20001/- to Rs30000/-	4	19.0%	15	38.5%	5.12 (2)	$0.077^{ m NS}$
Number of children	Rs.30001/- to Rs40000/-	1	4.8%	6	15.4%		
	> Rs 40000/-	0	.0%	0	.0%		
	One	11	52.4%	17	43.6%		
	Two	8	38.1%	14	35.9%	1 22 (2)	$0.540^{\rm NS}$
	Three	2	9.5%	8	20.5%	1.23 (2)	
Any previous	More than three	0	.0%	0	.0%		
	Yes	10	47.6%	7	17.9%		
knowledge about Newborn problems	No	11	52.4%	32	82.1%	5.92 (1)	0.015 <sup>NS</sup>
F	Social media	0	.0%	0	.0%		
Source of information	Friend & Family member	6	28.6%	24	61.5%	7.00 (1)	0.017NS
	Health care worker	15	71.4%	15	38.5%	5.93 (1)	0.015 <sup>NS</sup>
	Newspaper / TV	0	.0%	0	.0%		
Significant	NS= Non significant				<0.05 level of significance		

The above table 16 study for shows the association of the pre-test level of knowledge regarding newborn danger signs among the mothers of newborn with their selected demographic variables. The pretest score variables of age of mothers (chi-square=1.95), religion (chi-square=0.028), area of resident (chi-square 0.16), type of family (chi-square=0.028), educational qualification (chi-square=2.58), mother occupation (chi-square=1.84), monthly income of family (chi-square=5.12), no of child (chi-square=1.23), any previous knowledge about newborn problem (chi -square=5.92) source of information (chi-square=5.93) were found non-significant at <0.05 level of significance whereas is previous history of newborn danger signs (chi-square 1 0.50) were found significant at 0.05 level of significance.

So, the research hypothesis H<sub>2</sub> was accepted and H<sub>02</sub> was rejected because there was significant association between pre-test level of knowledge regarding new born danger signs among the mothers of newborn with occupation.

**SUMMARY-** This chapter deals with the analysis and interpretation based on objectives. Paired t test was used to evaluate the effectiveness of structured teaching programme regarding new born danger signs among the mothers of newborn. The chi square was used to determine the association of the selected demographic variables with pretest level of knowledge regarding new born danger signs among the mothers of newborn.

## CHAPTER - VI DISCUSSION

The discussion section is devoted to a thoughtful and insightful analysis of the findings, leading to a discussion of their theoretical utility.

A Quasi -Experimental one group pretest post design was use to assess the effectiveness of structure teaching program on knowledge regarding newborn danger signs among mothers of newborn. Data were collected from 60 mothers of newborn. By using non-probability convenient technique and analysis by using descriptive and inferential statics and presented in the form of table and diagram.

This chapter deals with the major findings of the study and discusses them in relation to similar studies conducted by other researchers. The findings of the study have been discussed with reference to the objectives and hypothesis state and with findings of other studies.

#### **OBJECTIVES OF THE STUDY**

- 1. To assess the knowledge regarding selected newborn danger signs among mothers of newborn in.
- 2. To assess the effectiveness of Structured Teaching Programme (STP) regarding selected new born danger signs among mothers of newborn.
- 3. To determine the association between pretest knowledge regarding newborn danger signs among mothers of newborn with their selected demographic variables.

#### **HYPOTHESIS**

**H**<sub>01</sub>: There is no significant difference between Pretest and posttest knowledge scores regarding Newborn danger signs among mothers of newborn.

 $H_{02}$ : There is no significant association between pretest knowledge score regarding newborn danger signs among mothers of newborn with their selected demographic variables.

**H**<sub>1</sub>: There is significant difference between Pretest and posttest knowledge scores regarding Newborn danger signs among mothers of newborn.

**H<sub>2</sub>:** There is significant association between pretest knowledge score regarding newborn danger signs among mothers of newborn with their selected demographic variables.

#### The findings of the study are discussed under the following sections:

**SECTION-I:** Description of assessment of knowledge regarding newborn danger signs among mothers of newborn.

**SECTION-II:** Comparison of pre-test and posttest knowledge level regarding newborn danger signs among mothers of newborn.

**SECTION-III:** Effectiveness of structured teaching program on knowledge regarding newborn danger signs among mothers of newborn.

**SECTION-IV:** Association of the pretest level of knowledge regarding newborn danger signs among mothers of newborn their selected demographic variables.

#### MAJOR FINDINGS OF THE STUDY

# Section I: Description of assessment of according knowledge regarding newborn danger signs among mothers of newborn.

The demographic variable of considered in the present study included variables like age, religion, Area of resident type of family, educational qualification, mother occupation, monthly income of family in rupee, number of children, any previous knowledge about newborn problems, source of information, newborn danger signs knowledge received newborn danger signs among mothers of newborn.

Out of 60 samples age, majority 33 (55%) were 26-30 years, 25(41.7%) were age between 20-25 years, 2(3.3%) and were between 30-35 years. In context religion of mother that majority is 38 (60.3%) Hindu and Muslim mother 22(36.7%). In context to type of the family that majority 38 (63.3%) a had nuclear family, 22(36.7%) had joint family and no one had single parent family. In context to educational qualification majority 31(51.7%) had Intermediate 16 (26.7%) had high school 13(21.7%) had Graduate. In context to mother occupation majority 34 (56.7%) are Housewife 17(28.3%) are private employee and 9(15.0%) government employee. Regarding income of the family majority 34(56.7%) had 10,000/- to 20000/- per month and 19(32.7%) are 20001/- to 30000/- and 7(11.7%) are 30001/- to Rs 40000/-. Regarding the number of living children majority 28(46.7%) mothers having one child, 22(36.7%) mothers having two children, 10(16.6%) mothers having three children. In context to source of information majority 30 (50%) mothers were had knowledge from Health care workers, 30(50%) mothers were hade knowledge from family members. Regarding previous knowledge about newborn problem, 43(71. %) had no having previous knowledge and 17(28.3%) previous knowledge about newborn problem.

A similar previous study conducted was supported by a descriptive cross-sectional study was conducted in to assist the knowledge of mothers of newborn regarding newborn danger signs. this study result indicate that mothers have inadequate knowledge about newborn danger signs. In pre-test 62(62%) of antenatal mothers were having inadequate knowledge and 38(38%) of antenatal mothers were having moderate knowledge. It was inferred that majority of the antenatal mothers were having inadequate knowledge in pretest. In post-test 41(41%) of antenatal mothers were moderate knowledge and 59(59%) of antenatal mothers were having adequate knowledge. It was inferred that majority of the antenatal mothers were having adequate knowledge in post-test. The findings of the study concluded that structured teaching programme (STP) was effective to increase the knowledge on mothers of newborn among newborn dangers signs.<sup>54</sup>

# Assessment of pre-test and posttest knowledge level regarding newborn danger signs among mothers of newborn.

The present study findings showed that, in the pre-test majority 39(65.0%) mothers of newborn of the had moderately knowledge on newborn danger signs, 21 (35.0%) of the mothers of newborn had inadequate knowledge newborn danger signs. In the post- test, majority 23(38.3%) of the mothers of newborn had adequate knowledge on newborn danger signs, 37 (61.7%) of the mothers of newborn had moderate knowledge regarding newborn danger signs.

In similar study findings in pre-test 62(62%) of antenatal mothers were having inadequate knowledge and 38(38%) of antenatal mothers were having moderate knowledge. It was inferred that majority of the antenatal mothers were having inadequate knowledge in pretest. In post-test 41(41%) of antenatal mothers were moderate knowledge and 59(59%) of antenatal mothers were having adequate knowledge. It was inferred that majority of the antenatal mothers were having adequate knowledge in post-test. <sup>55</sup>

# Section II: Comparison of pre-test and posttest knowledge level regarding newborn danger signs among mothers of newborn.

The findings of the study showed that the compression of mean, standard deviation to assess the effectiveness of structured teaching programme on newborn danger signs among mothers of newborn. Reveals that the post-test mean percentage of knowledge level was (31.28%) with mean score and S.D 21.57±2.81 was high when compared to the pre-test mean percentage of knowledge with the mean score and SD 12.23±2.17. Mean difference is 9.34.

A similar previous study was conducted to Following that a post-test knowledge assessment was recorded. The mean pre-test score was  $17.24 \pm 3.73$  and the post-test mean score was higher than the pre-test.28.76  $\pm 2.87$  and this difference was found to be statistically significant at p value less than 0.001. This study was concluded that STP may be routinely used as an effective way to empower the post-natal mother's knowledge about newborn danger signs.<sup>56</sup>

# Section III: Effectiveness of structured teaching program on knowledge regarding newborn danger signs among mothers of newborn

In the post test, Majority of the mothers 39(65%) had moderate knowledge. The posttest mean score was 21.57 and mean percentage 31.28%. The post-test mean score (18.77) was high when compare to pre-test mean (9.34). The calculated paired "t" test value -19.77 was significant at<0.05 level of significance, which shows there was a significant difference between the pretest and post-test knowledge regarding newborn danger signs among mothers of newborn. Hence the formulated research hypothesis H<sub>1</sub> was accepted.

A similar study was conducted to pretest mean score of knowledge was 24.23 with standard deviation of 5.981 and the posttest mean score was 40.52 with standard deviation of 8.902. the calculated paired 't' value 10.50 was found to be statistically highly significant at p<0.001 level which showed the effectiveness of structured teaching program regarding newborn care and danger signs of new born among the postnatal mothers. Hence the research hypothesis was accepted.<sup>57</sup>

# Section IV: Association of the pre- test level of knowledge regarding newborn danger signs among mothers of newborn with their selected demographic variables

The findings of the study showed that the association of sociodemographic variables, in that age of mothers (chi-square=1.95), religion (chi-square=0.028), area of resident(chi-square 0.16), type of family (chi-square=0.028), educational qualification (chi-square=2.58), monthly income of family (chi-square=5.12), no of children (chi-square=1.23), any previous knowledge about newborn problem (chi-square=5.92) source of information (chi-square=5.93) were not significant at <0.05 level of significance but only the mother occupation (chi-square=1.84) was significant. Hence, there was significant association of the pretest level of knowledge regarding newborn danger signs among mothers of newborn with occupation. Therefore, the research hypotheses H<sub>02</sub> was rejected H<sub>2</sub> was accepted.

In similar study was conducted to find the association between selected demographic variables with pre- test knowledge scores of postnatal mothers on newborn danger signs, which shows there is no significant association between selected demographic variables like age with computed  $\chi^2$ =0.066 at 1 df , education with computed  $\chi^2$ =0.4 at 1 df, occupation with computed  $\chi^2$ =0.661 at 1 df, economic status with computed  $\chi^2$ =0.4 at 1 df, religion with computed  $\chi^2$ =0.32 at 1 df, type of family with computed  $\chi^2$ =0.28 at 1 df, place of residence with computed  $\chi^2$ =2.77and number of children with computed  $\chi^2$ =0.3 with pre- test knowledge scores at P>0.05 level of significance.<sup>58</sup>

**SUMMARY-** This chapter deals with the study and discuss them with the similar studies conducted by another investigator. The investigator got similar finding compared to the review.

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#### CHAPTER – VII

#### **CONCLUSION**

From the finding of the present study, it can be concluded that the knowledge regarding newborn danger signs among mothers of newborn were improved after intervention that is structured teaching programme.

Hence, structured teaching programme was found effective in improving the knowledge regarding newborn danger signs among mothers of newborn.

The relevant data was collected and analyzed statistically based on the objective of the study. Prior to administration of structured teaching programme to newborn danger signs among mothers of newborn had total mean score & Standard Deviation 12.23 ± 2.17, whereas after the administration structured teaching programme of had total mean score & Standered Deviation 21.57±2.81 which had revealed that gain in the knowledge regarding newborn danger signs among mothers of newborn after administration of structured teaching programme. There was significant difference found with mean difference of (9.34) between the pre-test and post-test knowledge regarding newborn danger signs among mothers of newborn. There was no association between pre-test knowledge among 60 mothers of newborn, 35% having inadequate knowledge regarding newborn danger signs among mothers of newborn, 65% having moderate and no any have adequate knowledge regarding newborn danger signs among mothers of newborn.

The research reveals that there was significant difference in pretest and post-test knowledge newborn danger signs among mothers of newborn. The study also reveals that there was no association between demographic variable and knowledge newborn danger signs among mothers of newborn. The following conclusion was drawn on the basis of data analysis, structured teaching programme is effective in improving the knowledge regarding newborn danger signs among mothers of newborn.

#### The following conclusion was drawn on the basis of data analysis.

Structured teaching program is effective in improving the knowledge of mothers of newborn regarding newborn danger signs. The findings of the study revealed that there was no significant association of knowledge with selected demographic variables such as age of mother, type of family, religion of mother, educational status, occupation, monthly income of family, number of children, previous knowledge of newborn problem, source of information.

### Implication of the study

The finding of the present study has implication in the field of nursing practice, nursing education, nursing administration, nursing research.

### **Nursing Practice**

Nurse can impart structured teaching program in effective manner after assessing mother knowledge of newborn danger signs.

• Nurses can encompass autonomous and collaborative care of individuals of families, groups and communities.

#### **Nursing Education**

- The finding of the study indicates that more emphasis should be placed in the curriculum for newborn danger sign among mother's newborn. So, that the nursing student can use different teaching method to impart appropriate knowledge.
- Continue nursing education program can be organized for the nurses on this aspect.
- By education, development of all those capabilities in the teachers which help him/ her to control its severity.

### **Nursing Administration**

- The nurse administrator can organize the in-service education training program for nurses and other health care professionals to update their knowledge regarding newborn danger signs.
- The nurse can provide adequate allocation of budget and manpower to implement effectiveness structured teaching program which help the mothers of newborn to gain adequate knowledge and become confident to meet the need of self.
- The nurse administer can allocate resources and provide motivation for further study in hospital.
- Nursing conferences, group discussion can be conducted by the administrators periodically.

#### **Nursing Research**

The findings of the present study are helpful for the nursing professionals and nursing students to conduct further studies to find out the effectiveness of various methods of providing education on improving the knowledge regarding newborn danger signs among mothers of newborn and conduct the same study with different variables and large scale.

#### LIMITATION OF STUDY

- Small number of subject limits generalization.
- Only a single domain that knowledge is considered in the present study.

#### RECOMMENDATION

On the basis of the findings of the study, following recommendations put forward for further research.

- A similar study can be replicated on a large sample to generalize the findings
- A comprehensive study can be conducted to assess the effectiveness of structured teaching programme hospital IPD and OPD pediatric ward mothers of newborn.
- A similar study can be conducted in community area.
- An experimental study can be conducted with control group for comparison

**SUMMARY-**This chapter deals with conclusion, nursing implication in study, recommendation and limitation.

#### **CHAPTER VIII**

#### **SUMMARY**

The main aim of the study was to assess the effectiveness of structured teaching programme teaching on knowledge regarding newborn danger signs among mothers of newborn admitted in selected hospitals, U.P.

In order to find knowledge newborn danger signs among mothers of newborn stated objectives were-

- 1. To assess the knowledge regarding selected newborn danger signs among mothers of newborn in selected hospitals of Uttar Pradesh.
- 2. To assess the effectiveness of Structured Teaching Programme (STP) regarding selected new born danger signs among mothers of newborn in selected hospitals of Uttar Pradesh.
- 3. To determine the association between pretest knowledge regarding newborn danger signs among mothers of newborn with their selected demographic variables.

A Quasi -Experimental one group pre- test post- test only design and using non probability convenient sampling method. Study was conducted on 60 mothers to evaluate the effectiveness of structured teaching programme on knowledge regarding newborn danger signs among mothers of newborn admitted in selected hospitals, U.P

#### MAJOR FINDINGS OF THE STUDY

Findings related to assessment of pre-test knowledge of newborn danger signs among mothers of newborn.

The findings revealed that, in the pre-test 21(35.0%) were inadequate, 39(65.0%) moderate and no any have adequate knowledge regarding newborn danger signs among mothers of newborn.

Findings related to assessment of post-test knowledge of regarding newborn danger signs among mothers of newborn.

The findings reveal that, in the post-test majority of them were 37(61.7%) were moderate knowledge, 23(38.3%) had adequate knowledge and no had inadequate knowledge regarding newborn danger signs among mothers of newborn.

Findings related to effectiveness of structured teaching programme on knowledge regarding newborn danger signs among mothers of newborn.

The findings depict that, the enhancement of pre-test and post-test knowledge was 6.6 and obtained paired t test value is 19.77. This shows the effectiveness of structured teaching programme. Hence research hypothesis  $H_1$  was accepted.

Findings related to association of demographic variable with pre-test score of knowledge regarding newborn danger signs among mothers of newborn.

Data was conducted through structured knowledge questionnaire. Collected data was analyzed by using descriptive and inferential statistics. The findings are summarized as follows:

- ✓ Maximum percentage of the mothers of newborn was in the age groups of 26 to 30 years (55.0%).
- ✓ Majority of the mothers were belonged to Hindu religion (63.3%).
- ✓ Majority of the mother's area of residence rural (63.3%)
- ✓ Majority of mothers were educated intermediate (51.7%).
- ✓ Majority of mother's occupation were belonged to housewife (56.7%).
- ✓ Majority of mother's family monthly income of Rs. 10,000/- to 20,000/- (56.7%).
- Maximum percentage of mothers was belonging to nuclear family (63.3%).
- ✓ Majority of the mothers' children one (46.7%)
- ✓ Majority of the mothers had no any previous knowledge regarding newborn danger signs (71.7%).
- Majority of the mothers were obtained information from health care worker (50.0%)
- 39(65.0%) mothers had moderate level of knowledge during pre-test.
- ✓ 21(35.0%) mothers had inadequate level of knowledge during pre-test.
- ✓ 37(61.7%) mothers had moderate level of knowledge during post-test.
- ✓ 23 (38.3%) mothers had adequate level of knowledge during post-test.

The overall knowledge mean score during pre-test 12.23% which is of the total score reveals that the mothers of newborn had less knowledge regarding newborn danger signs.

The overall knowledge mean score during post-test 21.57 which is of the total score reveals that the mothers of newborn had significance gain in knowledge regarding newborn danger signs.

There was significant difference found with mean difference (-19.77) between the pre-test and post-test knowledge score of mothers of newborn.

There was association between pre-test knowledge scores with demographic variables as occupation, <0.05 level of significance. So, there was association between pre-test knowledge scores of mothers of newborn with the demographic variable. Hence the research hypothesis  $H_2$  was accepted  $H_{02}$  was rejected.

#### **CHAPTER-IX**

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