“A STUDY TO ASSESS THE STRESS AMONG THE PARENTS OF NEONATES ADMITTED IN NICU AT R. L.JALAPPA HOSPITAL

TAMAKA, KOLAR”

By

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Research Project Submitted to,

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In Partial Fulfillment of the Requirement for the Degree of Basic BSc (N)

Child Health Nursing

Under the Guidance of

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DECLRATION BY THE CANDIDATES

We hereby declare that the research project entitled "**A study to assess the stress among the parents of neonates admitted in NICU at R. L. Jalappa Hospital Tamaka Kolar"** is a bonafide and genuine research was carried out by us under the guidance and supervision of Mrs.Lavanya Subhashini, Associate Professor department of Child Health Nursing, Sri Devaraj Urs College of Nursing, Tamaka, Kolar - 563103

Place

Date: **Signature of the candidates**

Ms.Stephina

Ms.Stefy

Ms.Praveena

Ms.Rehna

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CERTIFICATION BY THE GUIDE

This is to certify that the research project entitled "**A study to assess the stress among the parents of neonates admitted in NICU at R. L. Jalappa Hospital Tamaka Kolar"** is a bonafide research work done by Ms. Praveena, Ms. Rehna, Ms. Soumya, Ms. Soundarya, Ms.Stefy, Ms. Stephina in partial fulfillment of the requirement for the degree of BSc (N) program.

Place :

Date

SIGNATURE OF THE GUIDE

Mrs. Lavanya Subhashini

Associate Professor

Child Health Nursing Department

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Tamaka, Kolar.

ENDORSEMENT BY THE HOD, PRINCIPAL/HEAD OF THE INSTITUTION

This is to certify that the research project entitled "**A study to assess the stress among the parents of neonates admitted in NICU at R. L. Jalappa Hospital Tamaka Kolar"** is a bonafide research work done by Ms. Praveena, Ms. Rehna, Ms. Soumya, Ms. Soundarya, Ms.Stefy, Ms. Stephina under the guidance of Mrs.Lavanya Subhashini Child Health Nursing Department, SDUCON, Tamaka, Kolar.

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By,

Ms.Stephina

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ABSTRACT

STATEMENT OF THE PROBLEM

"A Study To Assess The Stress Among The Parents Of Neonates Admitted in NICU at R. L. Jalappa Hospital Kolar."

OBJECTIVIES :

1) To assess the level of stress among the parents of neonates admitted in NICU at R. L. Jalappa Hospital Kolar
2) To determine the association between stress of parents of neonates with selected demographic variables.

METHODS:

A descriptive design was adopted for the study. The sample was 60 parents of neonates admitted in NICU of R. L. Jalappa Hospital and Research Centre, kolar. The data was collected by using Miles Parental Stress Scale. The study participants were selected by using convenient sampling technique.

MAJOR FINDINGS OF THE STUDY:

The overall findings of the study clearly showed that the NICU parents are having 76.6% of moderate stress and 23.3% of mild stress. The mothers stress was more compared to fathers stress. The NICU parents are having more stress in the area of parental role alteration and child appearance and behavior compared to sights and sounds, illness related factors, financial factors, social factors, and religious factors. The findings also revealed that the stress was more among mothers having male child. This study highlights importance and need of assessing stress of parents of neonates admitted in NICU. As nurses are primary care givers and educators they should provide adequate information, motivation and counseling to reduce stress and improve coping strategies for parents of neonates admitted in NICU.

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INTRODUCTION

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INTRODUCTION

A neonate is also called as a newborn, the neonatal period is the first 4 weeks (28days) of a child life. It is time when changes are very rapid and many critical events can occurs in this period: feeding patterns are established, bond in between parents and neonates begin, the risk of infections that may occur most serious and higher, many birth or congenital

defects are first noted. There are many problems in the neonatal period, which include feeding issues, inability to control body heat, jaundice, hypoglycemia, breathing problems, anemia, sepsis, congenital heart defects, intra uterine growth restrictions, necrotizing enterocolitis, macrosomia, etc. And NICU provides treatment for neonates with those problems.[1]

The first 28 days of life- neonatal period- are the most vulnerable time for a child survival. Children face the highest risk of dying in their first month of life. A at a global rate of 19 death per thousand live birth (2017). By way of comparison, the probability of dying after the first month but before reaching age 1 is 1, and after age 1 but before turning age 5 is 11. Globally, 2.6 million children died in first month of life 2016- approximately 7000 new born death every day- most of which occur in first week, with about 1 million dying on the first day and close to 1 million dying within the next 6 days. [United Nations Inter- Agency Group of Child Mortality Estimation (UNIGME) 2017][2]

The admission of neonates to a neonatal intensive care unit is a stress full experience for parents. Acute stress disorder has been documented in almost one third of all parents whose children were admitted to the NICU and other studies have shown that these symptoms persist beyond the baby's discharge. Major stressors to parents with a critically ill baby are well described, including alteration of parent role, fear of child suffering from painful procedures, potential for death, and long-term consequences of child illness. Parents often cite their sense of inconsistent information and minimal communication from physicians as stressors during a child's critical.[3]

Maternal-infant bonding has revealed that contact with infant is fundamentally important for the development of maternal self-confidence, security, sentimental emotional stability, and preparation for learning about infant's growth and development. Confident parents notice infant's signs for specific needs and appropriately act on time to respond to any physiological and behavioral changes. Moreover, parents with emotional stability provide better infant nutrition and maternal care. With an increased survival rate of premature infants the need to address infant survival outcomes requires a closer look at parental state of emotion and its psychosocial consequences. The quality of early maternal-infant relation is an important factor with potential for long-term negative effects on the mother and her premature infant. The parental ability to cope with having a premature infant and to provide quality care is one of the most essential factors to consider when maternal-infant outcomes

are assessed. Maternal-infant bonding influences the quality of care when maternal role has been conceptualized.[4]

Feeling reported by the parents of the babies admitted in NICU include anxiety, fear, frustration, confusion, anger, uneasiness and depression. According to the National Institute of Health, chronic stress causes anxiety, depression and heart disease. The emergency stress response, or the "flight - or - fight" response, is the body's physical reaction to stress. Stress elevates the heart rate, increases muscular tension, breathing rate and feeling of anxiety. The family as the main factor of strength and protection for infant is required as the bases of standard care in NICU. The standard care principle stands on respect, information, options to choose from, flexibility, encouragement, cooperation and support. Therefore, a mother should be given the opportunity to be a part of her infant care and the services provided for the family.[5]

Whenever there is an imbalance in the family it breeds tension in the system. Naturally, having a new born may create a family imbalance with new roles and responsibilities imposed on every family member. But, a premature birth requiring long-term hospitalization and home care obviously tilts the balance even further. The NICU environment can be stressful for parents for various reasons and they use different adaptation mechanisms to manage this stress. Therefore, staffs and the healthcare team should be prepared for repeated enquiries by anxious parents and try to support them with kindness and assurances when applicable.11 Including parents in the decision making process regarding the1ir infant's care may reduce parental stress and their confusion to some degree.[6]

NEED FOR THE STUDY

It is stated, "each year, over 40,000 babies are admitted to a NICU in the United State."(Schwartz, Kellogg, & Muri, 2000) The environment with in the NICU can become very overwhelming to not only the baby, but also the parents due to various forms of technology, sound and lighting. The admission and hospitalization of an ill infant can be extremely difficult for parents. As the new born is carefully situated in to their own bed, machines to measure heart rates and oxygen levels are beeping and buzzing around them. Thus, the admission process into the NICU can be very stressful. The environment, technology, appearance of the infant and the feeling of a loss of the parental role contributes greatly to the amount of stress found among the a parent in NICU.[7]

Everyone in the modern world experiences stress at least occasionally in life. Stress has been conceptualized in multiple ways, and it is having various psychological definitions are discussed. Stress has been defined as psychological and physical strain fear or tension generated by physical, emotional, social, economic or occupational circumstances, events to experiences that are stimulus based definition, of stress. Stress has devastating effects on individual, and societal levels; therefore it is important to understand its nature to assist development of interventions to mitigate these effect. One potentially stressful life events, which is the focus of this study, is the birth of an infant who is then cared for in Neonatal Intensive Care Unit (NICU). One potentially stressful life event is the birth of a child. It is not surprising then that the birth of a fragile child, who is then cared in a NICU, can be particularly stressful for the parents. This response has been revealed by comparing parents of infant who were cared for in a NICU with parents of full-term infants at various points in time. In the first week after their infants birth, parents of NICU infants were more upset, anxious and depressed compared with parents of full term infants.[8-9]

On the country, when the child becomes sick, especially in the early days if neonates is admitted to NICU itself a psychological threatening and even that is stressful to mothers, because of lack of bonding and attachment, altered parental role and stress in mothers. The parents feel a major part of loss due to this critical situation and changing environment. Studies have shown that stress arise in family members when neonates are admitted to NICU. Since the inception of intensive care unit researchers in nursing and medical literature have evidenced a curiosity about the psychological and social effects on mothers related to intensive care unit environment.[10]

Upon reviewing the literature relevant to parental stress factors in NICU, the NICU was the most commonly used measure to assess a stress factor associated with the parents in the studies reviewed. NICU measures stressors based on the sight and sound of the unit, infants behavior and appearance, parental role alteration and staff behavior and communication. The environment of the NICUs is full of staff machines, and ill infants. Because of this the technological environment of the NICU creates an intimidating atmosphere and parents reports that they often feel over whelmed. The parents who are unfamiliar with NICU environment and how to care to the infant become distraught, worried and anxious. The sights, sounds and perceptions are stressful factors for parents. Many of the studies implemented a tour of the NICU environment in order to reduce stress level. By doing so, parents are exposed to technologies staff and routine of the unit. Allowing parents tour and informational section of the unit decrease the worry and frustration.[11]

In the view of above literature information and from the investigators experiences of working in a hospital, the investigator opinion is that the assessment of stress among parents both mother and father will help to plan interventions and coping strategies to resolve stress and improve the care of baby in future.

CHAPTER - 2

OBJECTIVES

CHAPTER- 2

OBJECTIVES

STATEMENT OF THE PROBLEM

"A Study To Assess The Stress Among the Parents of Neonates Admitted in NICU at R. L. Jalappa Hospital Kolar."

OBJECTIVIES :

1) To assess the level of stress among the parents of neonates admitted in NICU at R. L. Jalappa Hospital Kolar.

2) To determine the association between stress of parents of neonates with selected demographic variables.

ASSUMPTION :

Parents of neonates admitted in NICU may have some stress.

HYPOTHESIS :

There will not be any significant association between the selected demographic variables and stress of parents of neonates admitted in NICU.

OPERATIONAL DEFINITIONS:

1) **Stress:** It is a term used for various psychological and physiologic pressure experienced by the people throughout their lives. In this study stress is assessed by using Miles modified parental stress scale.
2) **Parents**: In this study father or mother of baby present during the period of data collection and stayed in the hospital with child in NICU
3) **Neonates:** A child under 28 days of age
4) **NICU**: It is a unit of the hospital where critically ill neonates aged from birth to 28 days are admitted and treated for various illness

CONCEPTUAL FRAME WORK

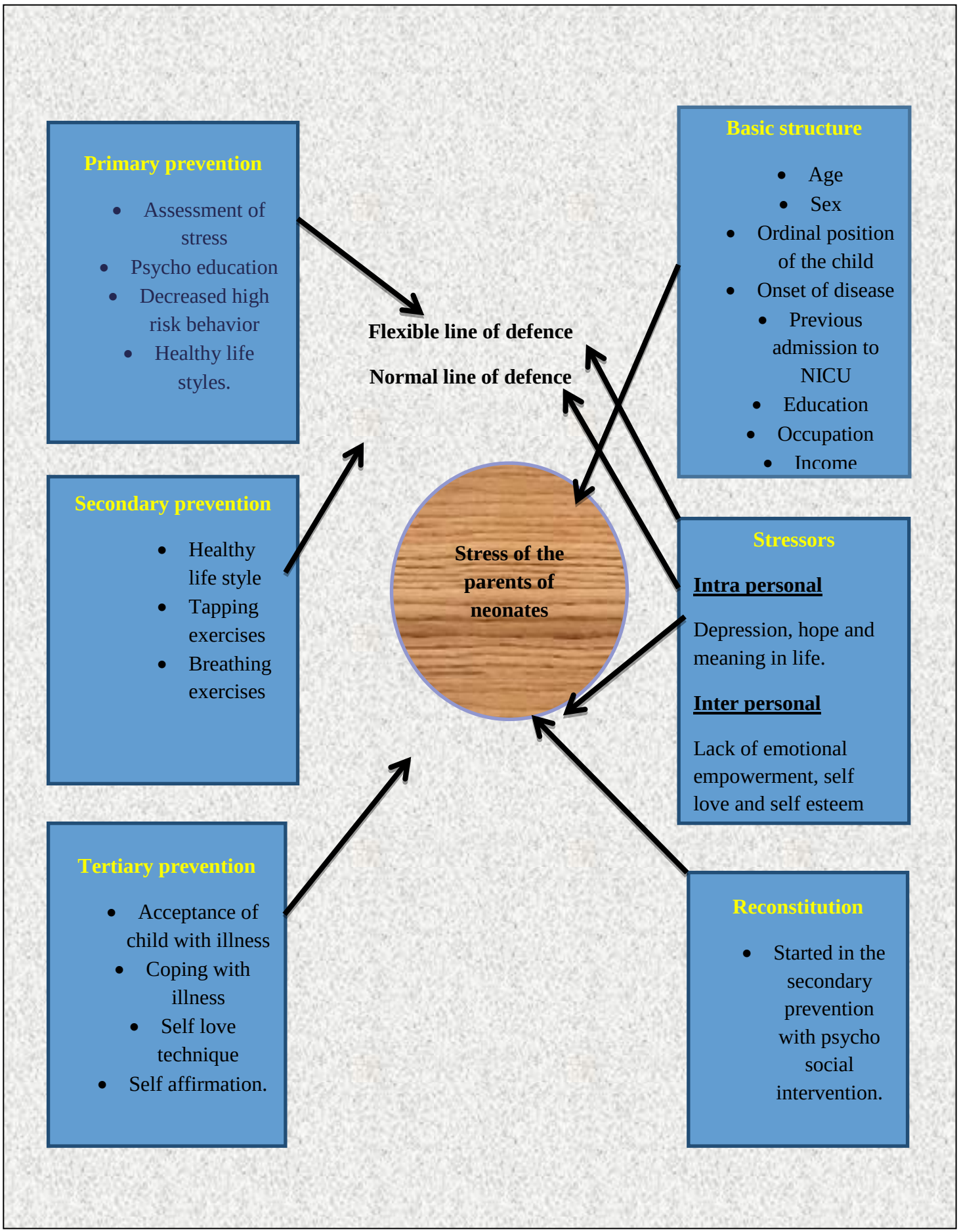
A concept is an abstract idea or mental image of phenomenon or reality. conceptual model broadly represent an understanding of the phenomenon of interest and reflex the assumption and philosophical views of the models designer.

Conceptual frame work for this is based on Betty Neumann health care systems model 1982. Neumann uses selye's definition of stressors as tension producing stimuli with potential of causing disequilibrium. The study aims at assessing the stress of mothers and father with babies admitted to NICU. The stress reduction, coping strategies and nursing perspectives not considered in the study.[12]

According to Neumann's model, the client is a core circle with several protective layers. The core consist of response pattern, organ strength, weakness and ego structure and known and, commonalities. The three surrounding layers such as flexible line of defense, normal line of defense and line of resistance protect the individual from stressors,

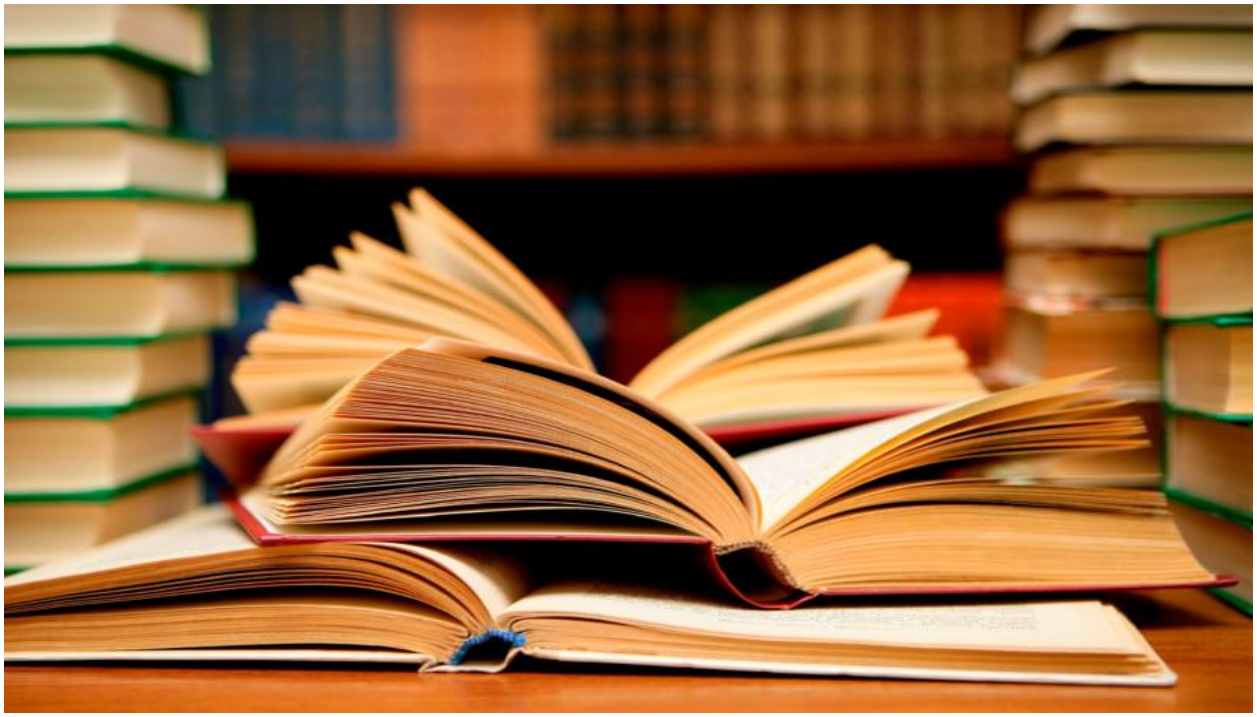
In the present study the parents of a hospitalized baby is viewed as open system, bombarded by a spectrum of stressor such as parental role alteration, sight and sound in NICU, appearance, behavior, social, religious, financial and illness related factors.

The reaction can occur in three levels of defense, that is, in the flexible line of defense. Parents may consider the admission of the baby in NICU as a challenge or an over whelming task. In the normal line of defense the parents evolve a normal range of response. This line consist of coping mechanism, life style. The parents try to use coping measures or changes life style so that they may adapt to stressful situation. This line represent a state of wellness to the individual. Parents again possess an internal resistance factors ie; line of resistance which attempts to stabilize the individual according to the ability to cope up with the problems. When the stressors cross through the line of resistance due to the intensity or frequency of interaction with stressors may alter the basic structure and parents may show stress. Stress is reaction of the body to any change in equilibrium. Stress may be mild, moderate or severe level. These levels of stress are being assessed in this study.


Primary prevention
Assessment of stress
Psycho education
Decreased high risk behavior
Healthy life styles.
Secondary prevention
Healthy life style
Tapping exercises
Breathing exercises
Tertiary prevention
Acceptance of child with illness
Coping with illness
Self love technique
Self affirmation.
Flexible line of defence
Normal line of defence
Stress of the parents of neonates
Basic structure
Age
Sex
Ordinal position of the child
Onset of disease
Previous admission to NICU
Education
Occupation
Income
Stressors
Intra personal
Depression, hope and meaning in life.
Inter personal
Lack of emotional empowerment, self love and self esteem
Reconstitution
Started in the secondary prevention with psycho social intervention.

CHAPTER- 3

Review of literature



CHAPTER – 3

REVIEW OF LITERATURE

This chapter deals with selected studies which are related to the objectives of the proposed study. A review of research and non-research literature relevant to the study was under taken which held the investigator to develop deeper insight into the problem and gain information on what have been done in the past.

The review of literature is essential to all steps of the research process. The review of literature is a systematic and critical review of most important published scholarly literature as well as unpublished scholarly print materials and individual materials.

Review of literature is not mere reading, but focusing and directing one's reading towards a specific purpose. The main purpose of literature is to gain a backward knowledge of the research topic, identify data sources used by other researchers and to learn how others structure their reports.

The literature review starts with the selection of a problem for research, continues through the various stages of the research process and ends with report writing. In the present study the researcher has present has carried out literature review at different stages of a research process.

1. STUDIES RELATED TO STRESS AMONG THE PARENTS OF NEONATES ADMITTED IN NICU :

An evaluative study to assess the stress of parents of children admitted in NICU in UK. The PSS: NICU is a well validated scale developed in the US to measure NICU related parental stress. Consecutive samples of parents (n=257) of infants in nine UK NICUs and two reference US unit completed the PSS:NICU and and the Speielberger state-trait anxiety scale approximately after one week admission. Psychometric properties of the PSS :NICU including internal consistency reliability and construct, concurrent and predictive validity , were evaluated. PSS: NICU score were similar in UK and US samples and high internal consistency reliability was found for all metrics (eg: over all stress:0.94 for both samples). A there factor principal components solution accounted for 66% of variance in the score, with the items grouped in to the three a priori scales specified in the PSS:NICU (infant behavior and appearance, parental role alteration and sight and sound). Stress occurrence and overall

stress were moderately co-related with state anxiety in both samples (r=0.46-0.61,p<0.001). 31% of the variances in stress occurrence in UK samples was explained by state anxiety, infant severity of illness score, parents gender, and less frequent visitation. The PSS:NICU demonstrated appropriate psychometric in a large sample of parents from diverse NICUs in the UK. These findings support its wider use in research and clinical; practice to identify parental distress and evaluate the effectiveness of nursing care and psycho social support service for parents.[13]

A descriptive study was conducted on psychological distress of 142 mothers of preterm infants admitted to NICU to identify the infant and maternal characteristics that predicted psychological distress. The PSS and the symptoms checklist 90-revised were used to collect the data. In hierarchical regression and analysis maternal NICU specific distress was more strongly predicted by infants characteristics with maternal variables. Co varied. Maternal general psychological distress was strongly predicted by maternal characteristics with infant variables co varied. 28% of the mothers reported clinically significant psychological distress compared to 10% in normative population.[14]

A subsequent study conducted to determine the effect of stress-reducing nursing interventions on the stress level of mothers and fathers of premature infants in the NICU Denizli at the Pamukkale University Hospital. A randomized intervention was administered in a 15 bed NICU Participants were split into two groups: 20 premature infants mothers and fathers were in a control group and 20 premature infants were in an experimental group involving education one-on-one and were provided with a booklet filled with informational facts on the NICU and care. The families were given the Parental Stressor Scale: NICU to measure situations that cause stress in the NICU. This instrument involves a rating scale ranging from 1-5. The State-Trait Anxiety Inventory, a 40-question tool , was also given to explain how an individual perceived stressful situations while their infant was in the NICU. Findings from the study revealed that both groups of parents experienced moderate levels of stress. This encompasses the initial stressor of having an infant admitted in the NIUC, regardless of being provided with any other information. According to the Sights and Sounds subscale of the PSS: NICU, the difference between the two groups was found to be statistically significant the set of 20 mothers and fathers who received intervention and education found the sights, sounds, and infant appearance to be less stressful than the control group. Another aspect of the study showed that a tour to acquaint parent with the NICU environment was beneficial. Although the NICU experience is often stressful due to the

environment and physical appearance and behaviors of the infants, the findings revealed that an orientation to the NICU was beneficial and helped the parents to feel more at ease.[15]

A descriptive study was conducted at R.L. Jalappa Hospital & Research Center, Kolar. A total of 60 parents, 35 from PICU and 30 from NICU were selected by purposive sampling technique. The data was collected by using modified parental stress scale and trait anxiety inventory. The result showed that the parents of neonates in NICU reported severe stress compared to parents of neonates in PICU[16]

2. STUDIES RELATED TO STRESS AND ITS COPING STRATREGIES AMONG THE PARENTS OF NEONATES ADMITTEDIN NICU

A co relational study to determine the relationship between family coping and resources and family adjustment and parental stress in the acute phase of NICU experience based on the Resiliency model of family stress, adjustment and adaptation. Main study instruments included the state anxiety scale of the state- trait anxiety inventory, the family inventory of resources for management, the family crisis oriented personal evaluation scale, and general functioning subscale of the Mc Master Family Assessment Device. Data was collected from 124 mothers and fathers pairs with 2-4 days of their infants admission to the NICU. Adequate resources were more strongly related to positive adjustment and decreased stress than either coping or being a first time parent. The relationship among the variables were generally the same for both parents. Mothers utilized more coping strategies than did fathers.[17]

A study was conducted on perceptions of stress, worry and support in Black and White mothers of hospitalized medically fragile infants. The sample comprised of 31 Black and White mothers of children. Data were collected using five self report questionnaires. All mothers reported high level of stress associated with the appearance of their infants and moderately high stress associated with their altered parental role, and moderately high level of worry about infant's health problems and high support from nursing and healthcare team. Black mothers were more stressed by sight and sounds of the NICU environment but level of their stress was only moderate. On other hand mothers with less education expressed more worry about their infants than did mothers with more education.[18]

A study was conducted to elucidate the mothers experiences related to separation from their newborns during their first week of life. When the newborns had been transferred to NICU. Design adopted was phenomenological hermeneutic approach. Tape recorded narrative interviews were conducted 1 to 2 months postpartum in the participants homes. The mothers were asked to describe and reflect upon their experiences during the time when they separated from their children. 80 women whose full term newborn had been treated in the NICU for between 2 and 10 days and then declared healthy and sent home. Results revealed that their experiences had caused them emotional strain and anxiety. From the analysis three themes emerged. Being an outsider was based on feeling of despair, powerlessness, homelessness, and disappointment. Lack of control included emotional instability, threat, guilt, and insecurity. The theme of carry included trust, love, anxiety, relief, closeness and explanations. The experiences were related to the staff, the child, the environment, the mother herself, the child's father and other mothers.[19]

A study was conducted on the effectiveness of a parents "buddy program for mothers of very preterm infants in a NICU. In the cohort study 32 mothers were recruited for the interventional group from the Mount Sinai Hospital and 28 mothers were recruited for the control group from sunny brook and Women's college health science center, both located in Toronto. Mothers in the intervention group were paired with trained mothers who had previously had a very preterm infant in the NICU had provided principally telephone support. participants in both groups received standard medical and social work services. At four weeks after enrolment in the study mothers in the intervention group reported less stress than in control group.(mean score 1.54 vs. 2.93,$p<0.001$). At sixteen weeks after enrolment the intervention group reported less anxiety (mean score 31.4 vs. 38.6 $p<0.05$), less depression (mean score 2.20 vs. 4.88, $p<0.01$) and greater perceived social support(mean score 6.49 vs. 5.48 $p<0.01$)than the control group.[20]

3.STUDIES RELATED TO STRESS AMONG THE FATHERS OF NEONATES ADMITTED IN NICU.

A systematically review related to the experience of fathers of preterm infants hospitalized in the Neonatal Intensive Care Unit identified five main themes from 14 studies. The themes were: emotional roller-coaster, paternal needs, coping strategies, self-representation and caregiving engagement.[21]

A systematic review related to qualitative findings about fathers' experiences of the neonatal intensive care unit (NICU) environment of twenty-four studies were included. All authors critically appraised and extracted data relating to fathers' experiences in the NICU using an agreed data extraction form. Emergent themes included Proximity, Parental Autonomy, Vulnerability, Communication and Exclusion, and Isolation. The needs of fathers to interact and be involved with their infants' care was a prominent factor that enhanced their experiences in the NICU. Staff in the NICU can play a key role in facilitating this interaction through encouragement and reassurance.[22]

A study was conducted on 60 fathers of neonates who were admitted to Pariyaram Medical College, Kannur to determine the factors related to stress and the level of stress experienced by them. The result showed that the majority of fathers (78.33%) had moderate stress whereas only 5% of fathers had mild stress and 16.67% had severe stress. The mean stress was (71.58%).[23]

A study was conducted on 80 fathers to assess the stress perceived by fathers of preterm infants requiring NICU care in India. This study was planned with the objective of quantifying the stress perceived by fathers of preterm infants requiring NICU care in India. Interviewed was given for 80 fathers on day 7; subsequently 59 and 28 of them and of them were interviewed on day 17 and day 27, respectively. The declining numbers were due to intervening discharges or deaths. The median (IQR) of fathers' age was 29 (27,34.5) years, family income was Rs.3000 (1800, 7000), duration of marriage was 3 (1,6) years, gravidity was 2 (1,3), and duration of antenatal hospital stay was 2 (1,5) days. Forty-five (56.2%) fathers were educated beyond 10thgrade, 38.4% between 6-10th grade and 9.6% to less than 6th grade. The mean (SD) gestational age of included neonates was 31.0 (1.7) weeks and birth weight 1194.5 (203.4) grams. Within each interview, there were significant differences in the DPSS between domains At each interview, the maximum stress was caused by financial burden[24]

A study was conducted in 46 fathers of neonates to assess the stress in NICU. Nonprobability purposive sampling was used, and face-to-face recruitment was used to recruit 46 fathers with premature babies in a NICU. Twenty-three were assigned to the control group and 23 to the intervention group. This sample size was estimated sufficient to

show a 5 score increase in fathers' knowledge of preterm infant behavior with 80% power and a 5% level of significance. the intervention group, there was a significant increase in fathers' knowledge about preterm infant behavior . Total scores for the dependent variable (KPIB) were analyzed using an independent test. The KPIB scores for knowledge were significantly lower for the control group than for the intervention group (p value < .001), indicating a positive effect of HUG education on fathers in the intervention group. [25]

SUMMARY:

Review of literature has enabled the investigator to establish the need for the study, develop the conceptual frame work, develop the tool and select the data collection technique.

Chapter - 4

RESEARCH METHODOLGY

CHAPTER – 4

RESEARCH METHODOLOGY

This chapter deals with the methodology selected for the study. It includes the research approach, research design, setting, sample and sampling technique, development and description of the instruments for data collection regarding the procedure and plan for data analysis.

Methodology of the research indicates the general pattern of organizing the procedure for empirical study together with the method of obtaining valid and reliable data for problem under investigation.

RESEARCH APPROACH

The research approach deals the researcher what data to collect and how to analyze it. It also suggest possible conclusion to be drawn from the data. In view of nature of the problem selected for the study and the objectives to be accomplished, a quantitative approach was considered as appropriate research approach for the present study.

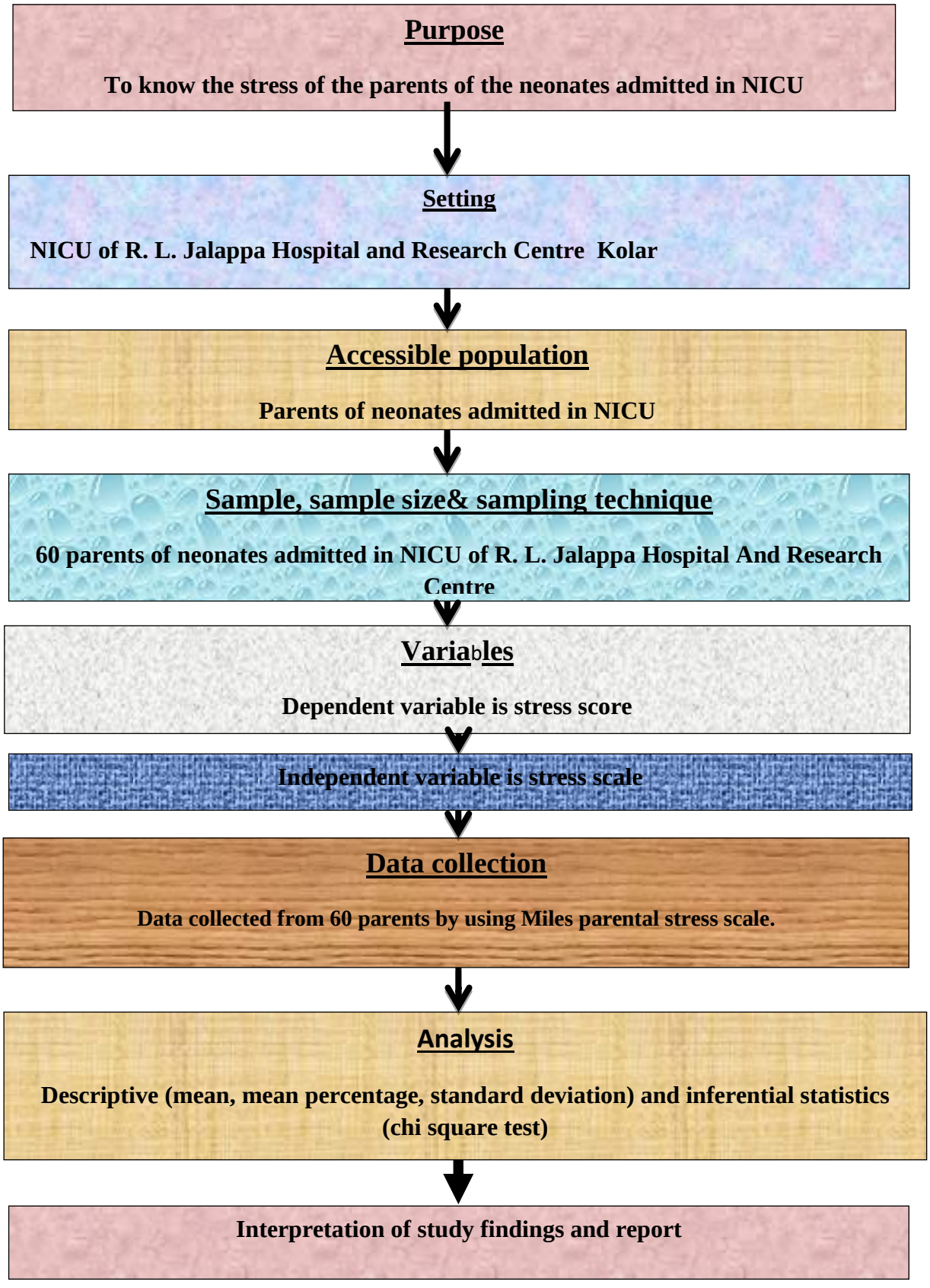
The quantitative approach was adopted for the present study.

RESEARCH DESIGN

The term research design refers to the researchers overall interest obtaining answer to the research questions or for testing research hypothesis.

The research design selected for this study was a descriptive survey design.

SCHEMATIC REPRESENTATION OF THE STUDY RESEARCH DESIGN



VARIABLES

Variables are qualities, properties or characteristics of persons, things or situation that change or vary.

Two types of variables are identified in the study they are:

1) Independent variable: The independent variable is stress scale.
2) Dependent variable: The dependent variable is stress score

SETTING OF THE STUDY

Setting refers to the area where the study is conducted. It is the physical location and condition in which the data collection takes place in a study.

The study was conducted in NICU of RL Jalappa Hospital and Research Centre, Tamaka, Kolar. The criteria for selection of setting where the availability of the subject, feasibility of conducting the study and investigators feasibility with the setting.

POPULATION

The population refers to the target population which represents the entire group or all the elements like individuals or object that met certain criteria for inclusion in the study.

In this study population refers to the parents of the children admitted in NICU at RL Jalappa Hospital and Research Center Tamaka, Kolar

SAMPLE

Sample refers to subset of the population that is selected to participate in particular study.

The sample size is 60 parents of the neonates admitted in NICU of R. L. Jalappa Hospital and Research Centre Tamaka , kolar.

SAMPLING TECHNIQUE

Sampling defines the process of selecting a group of people or other elements which with to conduct a study.

Convenient sampling technique was adopted to collect the data for the present study.

CRITERIA FOR SELECTION OF SAMPLE

Inclusive criteria-

1) Parents who can understand and able to speak English and Kannada
2) Parents who stayed with their baby in NICU at least for 3 days.

Exclusive criteria

1) Parents who are not willing to participate in the study.
2) Parents who are very sick due to psychological problem.

DATA COLLECTION TOOL

Selection and development of tool

A modified parental stress scale was used based on the objectives of the study as it was considered the most best and appropriate instrument to elicit the response from literate subjects. The main strengths behind developing the tool was,

- Related review of literature
- Based on the opinion and suggestions of experts
- Discussion with colleagues and personal experience in clinical setting
- Books journals, internets etc..

All of the above provided relevant data necessary to use the scale

Description of the tool

The adopted tool consist of the following section.

Section A - Socio demographic data

It include age of the child sex ordinal position of the child in family, onset of disease previous exposure tom hospital previous exposure to NICU and age of the parents, educational status, occupation ,income, type of the family, marital status, number of children

Section B- Modified Parental Stress scale:

It developed by Miles and carter. It consist of stress items under 7 main areas such as parental role alterations, infant appearance or behavior, sight and sound in NICU financial and illness related factors.[26]

Each of these items has three columns for responses (mild, moderate and severe) with a scale value of 1, 2 and 3.

According to total score obtained it was grouped as follows.

Mild 34-51(<50%)

Moderate 52-77 (<51-75%)

Severe 78-102(76-100%)

DATA COLLECTION

The data was collected from 07-11-2017 to 16-11-2017

Preparatory phase : Ethical clearance was obtained from institutes ethical committee. A formal written permission was obtained Medical officer and Nursing Superintendent of R.L. Jalappa Hospital and Research Center, Kolar. Informed consent was taken from parents of neonates admitted in NICU before conducting the study.

By using convenient sampling technique 60 parents of neonates admitted in NICU in RL Jalappa Hospital and Research Center Tamaka, Kolar. Were selected to fulfill the inclusion criteria

Data collection phase: The data was collected by interview with miles parental stress scale. During interview schedule 30 minutes was spend with each parent for date collection

DATA ANALYSIS

The analysis of data requires a number of closely operations such as establishment of categories. The application of these categories to raw data through coding, tabulation and then drawing statistical inference.

The data obtained was analyzed by descriptive and inferential statistics in achieving the objectives of the study.

- Organization of data in master sheet
- Socio- demographic data were analyzed in forms of frequency and mean percentage.
- Calculation of mean and standard deviation of stress and anxiety score.
- Application of chi square test (x^2) test to find the association between the socio demographic variables with stress and anxiety of parents of babies admitted in NICU.
-

SUMMARY

This chapter deals with the methodology, research approach, research design, setting, population, sample and sampling technique, development and description of the tool, data collection procedure and data analysis

CHAPTER - 5

DATA ANALYSIS AND INTERPRETATION

CHAPTER - 5

DATA ANALYSIS AND INTERPRETATION

This chapter deals with analysis and interpretation of data gathered to know the stress level of parents of neonates admitted in NICU in selected hospital Kolar

The analysis and interpretation of the study are based on the data collected with a miles parental stress scale. The result was analyzed using descriptive and inferential statistics based on the following objectives of the study.

Data analysis is defined as the systematic organization and synthesis of research data and testing of research hypothesis using those data

OBJECTIVES

1) To assess the level of stress among the parents of neonates admitted in NICU at R.L. Jalappa Hospital Kolar.

2) To determine the association between stress of parents of neonates with selected demographic variables.

HYPOTHESIS :

There will not be any significant association between the selected demographic variables and stress of parents of neonates admitted in NICU.

ORGANISATIONAL FINDINGS

Section- A

This section deals with distribution of neonates and parents according to their selected demographic variables

Section- B

This section deals with the association of demographic variables of neonates and parents with stress score

Section C

Socio demographic variables of neonates admitted in NICU.

Table 1. Distribution of neonates of NICU based on the socio demographic variables

Sl.no.	Demographic variables	Frequency	Percentage (%)
1	Age of the Baby • Below 10 days • Above 10 days	 47 13	 78.3 21.6
2	Sex • Male • Female	 38 21	 63.3 35
3	Birth weight of the baby • < 1.5 kg • 1.6 – 2.5 kg • 2.6 – 3.5 kg	 10 44 6	 16.6 73.3 10
4	Ordinal position of the neonate in Family • First born • Middle born • Last born	 35 24 1	 58.3 40 1.6

Table 1 reveals that the demographic variables of the neonates admitted in NICU.

1. Majority of the babies (78.3%) age is below 10 days, 21.6% of the babies belongs to above 10 days of age.
2. Majority of babies (63.3%) were males and 35% were females.
3. Majority of the babies (73.3%) birth weight were between 1.6 - 2.5 kg, 16.6% of babies belongs to < 1.5 kg and remaining 10% belongs to 2.6 – 3.5 kg.
4. Majority of babies (58.3%) were first born, 40% were middle born babies and 1.6% were last born babies.

Table 2.Distribution of parents of NICU based on socio demographic variables

N=60

Sl. No	Demographic Data	Frequency		Percentage (%)	
		Father	**Mother**	**Father**	**Mother**
1	Age in years : • 20 – 30 years • 31 - 40 years • 40 - 50 years	33 09 0	18 0 0	55 15 0	30 0 0
2	Educational status • Primary school • Middle school • High school • PUC • Graduates or above • Technical or professional education	3 13 7 18 1 0	2 5 8 3 0 0	5 21.6 11.6 30 1.6 0	3.3 8.3 13.3 5 0 0
3	Occupation • House wife • Laborer • Private employer • Government employer	0 35 4 3	15 2 1 0	0 58 6.6 5	25 3.3 1.6 0
4	Income of the family (per month) • <Rs.5000 • Rs.5000-8000 • Rs.8001-11000 • >11000	1 16 17 26		1.66 26.6 28.3 43.3	
5	Type of the family • Nuclear • Joint	46 14		76.6 23.3	
6	Marital status • Married • Widow • Divorce	51 7 2		85 11.6 3.33	

7	Number of children • One • Two • >Two	40 20 0	66.6 33.3 0
8	Type of the delivery: • Normal vaginal delivery • LSCS	46 14	76.6 23.3
9	Gestational Age • < 37 weeks • 38-42weeks • above 42 weeks	31 28 1	51.6 46.6 1.66
10	Illness or accidents in the past one month • Yes • No	9 51	15 85
11	Previous exposure to stress • Yes • No	25 35	41.6 58.3

Table 2. Reveals that the demographic variables of the parents of neonates admitted in NICU.

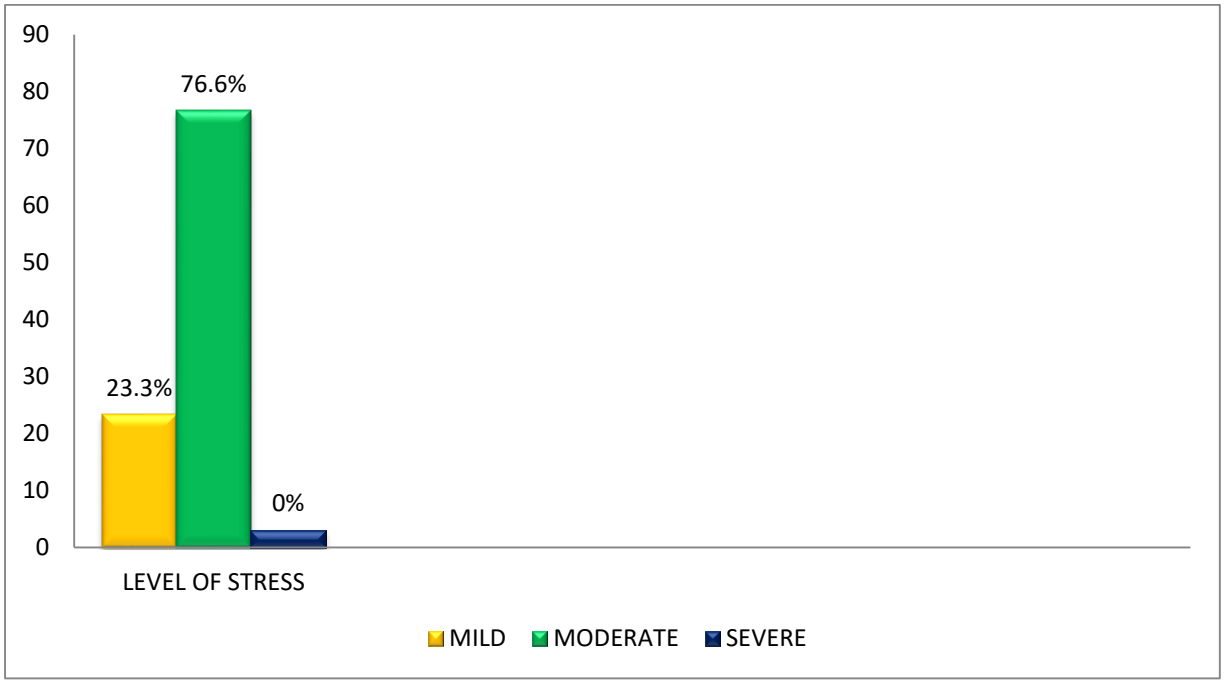
1. Majority of fathers (55%) belongs to 20-30 years of age and remaining 15% were between 31-40 years of age, and majority of mothers (30%) were between 20-30 years of age.
2. Majority of fathers (30%) had PUC, 21.6% were having middle school education, 11.6% had high school, 5% had primary education, 1.6% were professionals, majority of mothers (13.3%) were high school, 8.3% were having middle school, 5%PUC, 3.3% primary school education.
3. Majority of fathers (58%) were laborers, 6.6% were private employees, 5% were government employees and majority of mothers 25% were house wife, 3.3% were labor, 1.6% private employee.
4. Majority of parents (4.33%) were earning Rs >1130/- monthly, 28.3%were earning Rs. 8001-11000/- monthly, 26.6% were earning Rs.5000-8000/- monthly and 1.66% earns <5000 monthly.
5. Majority of parents (76.6%) belongs to nuclear families and remaining 23.3% belongs to joint families.
6. Majority of parents (85%) were married, 11.6% were widows and 3.33% were divorce.
7. Majority of parents (66.6%) were having one child and remaining 33.3% were having two children.
8. Majority of parents (76.6%) had normal vaginal delivery remaining 23.3% were LSCS.
9. Majority of parents (51.6%) belongs to >37 weeks of Gestation, 46.6% belongs to 38-42 weeks of gestation and remaining 1.66% belongs to < 42 weeks of gestation.
10. Majority of parents (85%) haven't exposed to previous illness/ accidents remaining 15% had exposure in previous illness/ accidents.
11. Majority of parents (58.3%) does not had exposure to previous stress and 41.6% had exposure on previous stress.

Table: 3 Level of stress among parents of neonates admitted in NICU.

N=60

LEVEL OF STRESS	F	%
MILD	**14**	**23.3**
MODERATE	**46**	**76.6**
SEVERE	**0**	**0**

Figure : 1



Level of Stress Among Parents of Neonates Admitted in NICU.

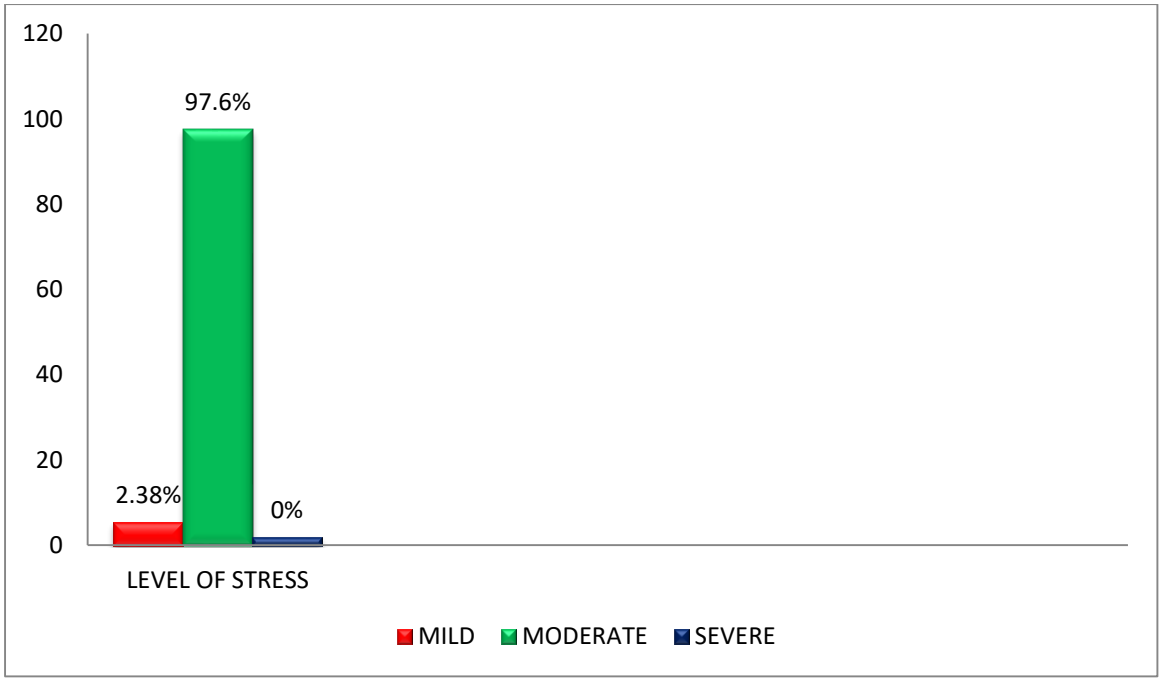
Table : 3 and figure:1 shows that out 60 parents, 76.6% of parents are having moderate level of stress and 23.3% of parents were having mild level of stress. So it is evident that the parents of neonates admitted in NICU were having moderate level of stress.

Table: 4 Level of Stress of Fathers of Neonates Admitted in NICU.

N=42

	Mild Stress		Moderate Stress		Severe Stress	
	F	%	F	%	F	%
FATHER	1	2.38	41	97.6	0	0

Figure: 2



Level of Stress of Fathers of Neonates Admitted In NICU

Table : 4 and figure shows, out of 42 fathers 97.6% of fathers were having moderate level of stress and 2.38% fathers were having mild level of stress. So it is evident that the fathers of neonates admitted in NICU were having moderate level of stress.

Table: 5 Level of stress among mothers of neonates admitted in NICU.

N=18

	Mild Stress		Moderate Stress		Severe Stress	
	F	**%**	**F**	**%**	**F**	**%**
MOTHER	**0**	**0**	**18**	**100**	**0**	**0**

FIGURE :3

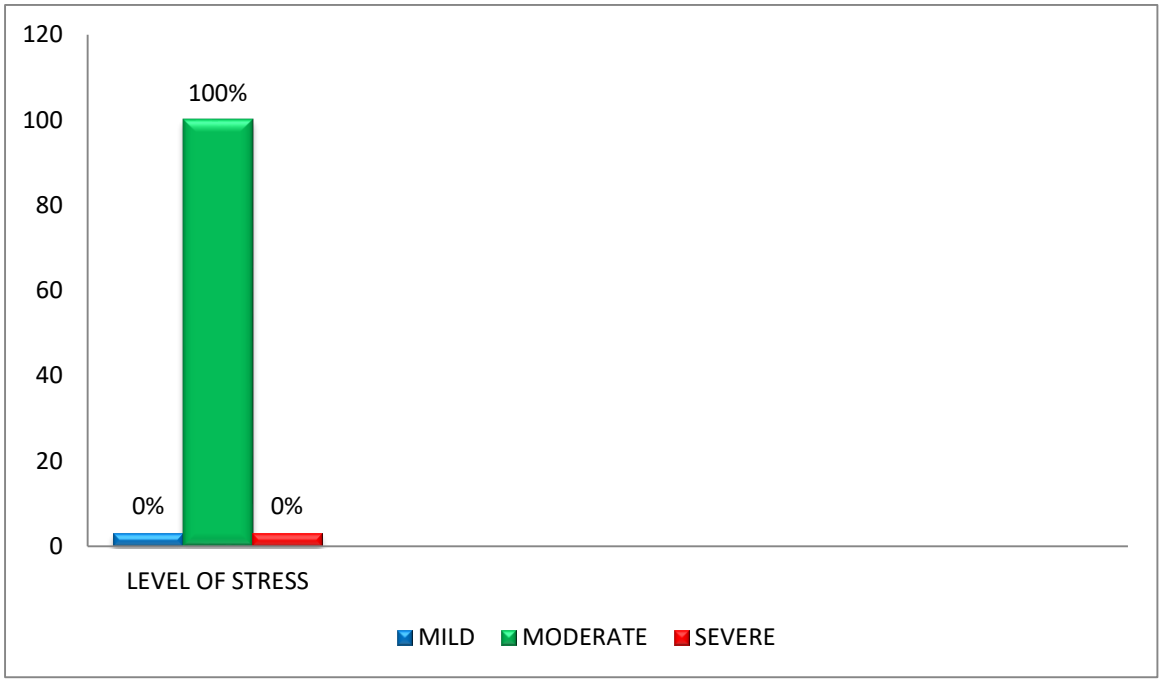


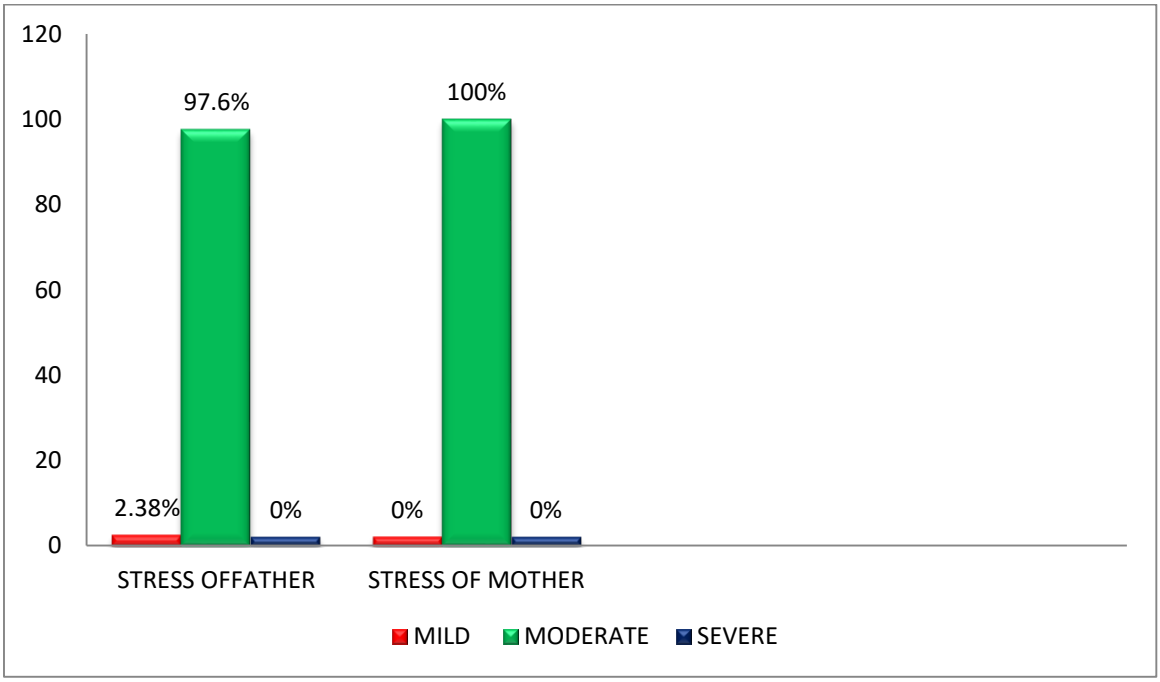
Table 5 and figure 3 shows that out of 18 mothers, all were having (100%) moderate level of stress.

Table :6 Comparison of level of stress among fathers and mothers of neonates admitted in NICU.

N=60

	Mild Stress		Moderate Stress		Severe Stress	
	F	%	F	%	F	%
Father	**1**	**2.38**	**41**	**97.6**	**0**	**0**
Mother	**0**	**0**	**18**	**100**	**0**	**0**

figure 4



Level of stress among fathers and mothers of neonates admitted in NICU.

Table 6 and figure 4 shows that majority of the fathers (97.6%) were having moderate stress, remaining 2.38% of fathers were having mild stress whereas all (100%) mothers were having moderate stress

Table 8 Mean stress of fathers and mothers of neonates admitted in NICU

N=60

	MEAN	**SD**
FATHER	41.4	2.2
MOTHER	59.3	0.1
Total mean= 58.75		

Table 8 shows that among the parents of neonates, mothers were having more stress (59.3) compared to fathers (41.4). The total mean stress were 58.75.

Table: 8 Area Wise Comparison of Stress among fathers and mothers of Neonates admitted in NICU

N=60

Sl. No	Area	Father		Mother	
		Mean	%	Mean	%
1.	Parental Role Alteration	15	25	12.90	30.72
2.	Child Appearance / Behavior	12.66	30.14	13.33	22.2
3.	Sights & Sounds	2.92	7	13	22
4.	Social Factors	3.84	9.16	5	8.33
5.	Religious Factors	2.57	6.11	3	5
6.	Financial Factors in NICU	5.11	9	2.92	7
7.	Illness Related Factors In NICU	3.80	9.04	5	8.33

Table : 8 Out of 60 parents, Mothers were having more stress in the area of parental alteration (30.72%) and 22.2% of stress in the area of child appearance and behavior, 22% of stress in the area of sights and sounds, 8.33% of stress in both social factors and illness related factors, 7% of stress in the area of financial factors and 5% of stress in the area of religious factors and in fathers (30.14%) were having more stress in the area of child appearance / behavior, 25% of stress in the area of parental role alteration, 9.16% of stress in the area of social factors, 9.04% of stress in the area of illness related factors, 9% of stress in the area of financial factors,7% of stress in the area of sights and sounds and 6.11% of stress in the area of religious factors

Section B

Table-9 Association between the stress and demographic variables of NICU neonates and parents.

N=60

Sl. No	Demographic variables	Stress level		X^2 calculated	ds	P value inference
		Mild	Moderate			
1	Age (parents) • Below 30 years • Above 30 years	13 2	34 11	0.8183	1	0.3656
2	Education • High school • PUC & Above	8 7	30 15	0.8612	1	0.3533
3	Occupation • Labor • Private / govt.	12 3	40 5	0.7692	1	0.3997
4.	Income • Below 8000/- • Above 8001/-	5 10	12 33	0.2462	1	0.6197
5.	Type of family • Nuclear • Joint	13 2	36 9	0.334	1	0.563
6.	Marital status • Married • Separated	12 3	39 6	0.3922	1	0.5311
7.	Number of children • One • More than one	8 7	33 12	2.0796	1	0.1492
8.	Type of delivery • NVD • LSCS	9 6	36 9	2.4	1	0.1213

9.	Gestational age • Below 37 • Above 38	 12 6	 23 19	0.734	1	0.39131
10.	Illness / accidents • Yes • No	 3 12	 6 39	0.3922	1	0.5311
11.	Previous exposure to stress • Yes • No	 8 6	 18 28	1.418	1	.02337
12	Age of baby • below 10 days • above 10days	 15 6	 32 7	2.937	1	0.0865
13.	Sex • male • female	 6 9	 32 13	4.689	1	0.0303
14.	Birth weight of baby • below 2.5kg • above 2.6kg	 13 3	 38 6	0.2406	1	0.6237
15.	Ordinal position • first born • later	 8 7	 30 15	0.8612	1	0.3533

Table :6 shows that the association between the demographic variable like age, education, occupation, income, type of family, marital status, number of children, type of delivery, gestation al age, illness/accidents, previous exposure to stress, sex birth weight and ordinal position.

Association of Demographic variable with Stress of NICU parents.

Age: There is no significant association between the age and the stress of NICU parents (p> 0.3656)

Education: There is no significant association between education and stress of NICU parents.(p>0.3533).

Occupation: There is no significant association between occupation and stress of NICU parents (p>0.3997)

Income : There is no significant association between income and stress of NICU parents (p>0.6197).

Type of family: There is no significant association between type of family and stress of NICU parents (p>0.563).

Marital status: There is no significant association between marital status and stress of NICU parents (p>0.5311)

Number of children: There is no significant association between number cf children and stress of NICU parents (p>0.1.92)

Type of delivery: There is no significant association between type of delivery and stress of NICU parents (p>0.1213)

Gestational age: There is no significant association between gestational age and stress of NICU parents (p>0.3913)

Illness / accidents: There is no significant association between Illness / accidents and stress of NICU parents (p>0.5311).

Previous exposure to stress: There is no significant association between previous exposure to stress and stress of NICU parents (p>0.2337)

Age of baby: There is no significant association between age of baby and stress of NICU parents (p>0.0865)

Sex: There is a significant association between sex and stress of NICU parents (p>0.0303)

Birth weight of baby: There is no significant association between birth weight and stress of NICU parents ($p>0.6237$)

Ordinal position: There is no significant association between ordinal position and stress of NICU parents ($p>0.3$

CHAPTER - 6

DISCUSSION

CHAPTER 6

DISCUSSION

The descriptive study was conducted at R. L. Jalappa Hospital and Research center, Tamaka, Kolar. It was designed to assess the stress of parents of neonates admitted in NICU. The data was collected from 60 parents of neonates admitted in NICU. The study was conducted over a period of 30 days in the month of July. The instruction used for the study consist of two section.

1. Socio demographic data.
2. Mile's parental stress scale.

The findings of the study are discussed under the following headings.

1. Socio-demographic variables
2. Assessment of stress among the parents of neonates
3. Association between stress and selected socio demographic variables.

1. SOCIO-DEMOGRAPHIC VARIABLE

Majority of the neonates (78.3%) were below 10 days of age, 63.3% were males and 36.6% were females. 63.3% of the neonates were first born. Majority of the babies (73.3%) were between the birth weight of 1.6kg – 2.5kg.

Majority of fathers (55%) belongs to the age group of 21- 30 years and majority (30%) of mothers belongs to 20-30 years of age and majority of fathers (30%) were having PUC education and majority of mothers 13.3% were having high school education. Majority (58%) of fathers were labors and majority of mothers 25% were housewife. Their majority family income (43.3%) is >11000 per month. Majority of the parents (68.3%) were prime gravid, 81.6% belongs to nuclear family.

2. ASSESSMENT OF STRESS OF PARENTS OF NEONATES ADMITTED IN NICU

The first objective was to assess the stress level of parents of neonates admitted in NICU the level of stress of parents of neonates admitted in NICU was assessed and tabulated

in table 3. Out of 60 parents, the NICU parents are having 76.6% of moderate stress and 23.3% of mild stress.

The area wise assessment of level of stress of NICU parents showed that out of 60 parents, Mothers were having more stress in the area of parental alteration (30.72%) and least stress in the area of religious factors (5%) and in fathers (30.14%) were having more stress in the area of child appearance / behavior and least stress in the area of religious factors (6.11%)

The finding of other study showed that fathers were having more stress in the area of financial factors in conflict with other study.[27] But this study states that fathers were having less stress in the area of financial factors.

ASSOCIATION BETWEEN STRESS AND SELECTED DEMOGRAPHIC VARIABLES

The second objective was to find out the association between the stress of the parents with selected demographic variable.

There was a significant association with gender ($p < 0.3035$) and the stress among parents of neonates admitted in NICU. Age ($p > 0.0863$), Birth Weight of Baby($P > 0.6237$), Ordinal Position($P > 0.33$), Age of Parents ($p > 0.5636$), Education ($p > 0.3533$), Occupation ($p > 0.3997$), Income($p > 0.619$), Type Of Family($p > 0.563$), Marital Status($p > 0.531$), Number Of Children($p > 0.149$), Type Of Delivery($p > 0.121$), Gestational Age ($p > 0.391$), Illness / Accidents($p > 0.531$) And Previous Exposure To Stress ($p > 0.233$)

The study findings are consistent with a stress response expressed by parents of neonates admitted in NICU is the result of a complex interaction between a number of variables that includes personal family factors (eg; parents educational level, age other life stressors,) situational variables (eg; type of admission, perceived severity) and environmental stimuli. All of these factors interacts as source of stress for parents who have a baby in the NICU[28.]

Another study shows that there is significant association with demographic variables of stress of the parents (83%) at $p < 0.05$ level of significance.

SUMMARY:

This chapter dealt with statistical analysis regarding socio demographic variables, association of stress of parents of neonates admitted in NICU with selected demographic variable. The study findings showed that the NICU parents were having 76.6% of moderate stress and 23.3% of mild stress and the NICU parents having more stress in the area of parental role alteration and child appearance / behavior.

There is a significant association in sex ($p > 0.3035$) with stress compared to demographic variable like age, birth weight of baby, ordinal position, age of parents, education, occupation, income, type of family, marital status, number of children, type of delivery, gestational age, illness / accidents and previous exposure to stress.

CHAPTER 7

CONCLUSION

This chapter presents the major findings of the study, the conclusion drawn, implications, limitations, suggestions and recommendations.

This study was aimed to assess the stress of the parents of neonates admitted in NICU at R .L. Jalappa Hospital Kolar. A descriptive survey design is used for the study. The data was collected from 60 parents using miles parental stress scale.

The overall findings of the study clearly showed that the NICU parents are having 76.6% of moderate stress and 23.3% of mild stress. The NICU parents are having more stress in the area of parental role alteration and child appearance and behavior rather than other components. There is a significant association in sex ($p > 0.3035$) with stress compared to demographic variable. This study highlights importance and need of assessing stress of parents of neonates admitted in NICU.

IMPLICATION OF THE STUDY

The study findings has implication in the fallowing areas. The implications are discussed under the following headings.

1) Nursing practice
2) Nursing education
3) Nursing administration
4) Nursing research

IMPLICATION

The findings of the study have several implications in nursing administration, nursing practice, nursing education and nursing research.

NURSING PRACTICE

1. Nursing professionals working in the hospital as well as in the community setting play key role in enhancing the assessment of stress.

2. The nurse can educate them how to get adapted to the situation.

NURSING EDUCATION

1. As a nurse educator, assessment of stress and management technique, including relaxation exercises can be taught to parents and the students.

2. Provide calm and quite environment.

3. Emphasis the significance of educational and adaption programs. Implement and evaluate its effectiveness.

NURSING ADMINISTRATION

1. Nursing administrators may use the study to improve the quality of nurse and parents. It highlights the needs for nursing administrators to make protocol, guidelines regarding management of stress.

2. Nurse administrator should take up leadership role in controlling stress of parents.

NURSING RESEARCH

1. The findings of the study serve as a basis for reducing the stress among parents.

2. This study helps the nurse researcher to develop insight about the occurrence of stress among parents, and how it will affect both positively and negatively

LIMITATIONS

1. The stress was assessed only through Mile's parental stress scale.

2. The study is limited to 60 parents of neonates admitted in NICU of R.L Jalappa hospital and research center only using convenient sampling.

SUGGESTIONS FOR FUTURE STUDY

1. A similar study can be conducted with experimental research approach design having a controlled group
2. A study may be conducted to identify various factors that influence the parents
3. A follow up study may be conducted to evaluate the effectiveness of self instructional modules on stress management.

RECOMMENDATIONS

1. Regular in service education should be conducted for parents regarding stress management

2. Suitable environment for learning could be maintained through regular clinical teaching in hospital on care of parents with stress.

CONCLUSION

Every parents had the eagerness to have clear explanation about the baby condition during hospitalization. Nurses are primary care givers and educators. Adequate information, motivation, counseling are essential to reduce stress. The present study mainly emphasis on assessment of stress of parents of neonates admitted in NICU.

CHAPTER -8

SUMMARY

CHAPTER – 8

SUMMARY

The present study was "A Study To Assess The Stress Among The Parents Of Neonates Admitted In Nicu At R. L. Jalappa Hospital Kolar." with the following objectives:

OBJECTIVES

1) To assess the level of stress among the parents of neonates admitted in NICU at R.L. Jalappa Hospital Kolar.

2) To determine the association between stress of parents of neonates with selected demographic variables.

HYPOTHESIS :

There will not be any significant association between the selected demographic variables and stress of parents of neonates admitted in NICU.

The conceptual frame work used in the study is based on the Betty Neumann's health care system model. This system provides an approach for stimulating continued learning for establishing innovative foundation for nursing practice.

The study made use of a descriptive survey approach. The population in the study was parents of neonates admitted in RL Jalappa hospital and Research Centre Tamaka, Kolar

A convenient sampling technique was adopted to select 60 study participants based on certain pre-determined criteria. The data were generated using Mile's parental stress scale.

MAJOR FINDINGS OF THE STUDY

1. **SOCIO-DEMOGRAPHIC VARIABLE**

Majority of the neonates (95%) were between 5-10 days of age, 63.3% were males and 36.6% were females. 63.3% of the neonates were first born. Majority of the babies (73.3%) were between the birth weight of 1.6kg – 2.5kg.

Majority of parents (78.3%) belongs to the age group of 21- 30 years and (41.6%) were having middle school education. Majority (83.3%) of parents were labors. Their

majority family income (43.3%) is >11000 per month. Majority of the parents (68.3%) were primi gravida, 81.6% belongs to nuclear family

1. ASSESSMENT OF STRESS OF PARENTS OF NEONATES ADMITTED IN NICU

The first objective was to assess the stress level of parents of neonates admitted in NICU the level of stress of parents of neonates admitted in NICU was assessed and tabulated in table 3. Out of 60 parents, the NICU parents are having 76.6% of moderate stress and 23.3% of mild stress.

The area wise assessment of stress of NICU parents showed that majority of parents 24.1% were having stress in parental role alteration, 24% of parents were having stress in child appearance / behavior, 20% of parents were having stress in sights and sounds, 9% of parents were having stress in both financial and illness related factors, 8.3% of parents having stress in social factors and remaining 5% of parents were having stress in religious factors.

2. ASSOCIATION BETWEEN STRESS AND SELECTED DEMOGRAPHIC VARIABLES

The second objective was to find out the association between the stress of the parents with selected demographic variable.

There is a significant association in sex ($p > 0.3035$) with stress compared to demographic variable like age, birth weight of baby, ordinal position, age of parents, education, occupation, income, type of family, marital status, number of children, type of delivery, gestational age, illness / accidents and previous exposure to stress.

CONCLUSION

The overall findings of the study clearly showed that the NICU parents were having more stress the area of parental role alteration and child appearance / behavior compared to other component.

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ANNEXURE-1

REQUESTING PERMISSION TO CONDUCT RESEARCH STUDY

From,
Praveena.S
Soumya Roy
Soundarya
Stefy Rose Michel
Stephina Mathew
Rehna Roji
IVth year Bsc Nursing
S D U C O N
Tamaka, Kolar

Through,
The Principal
Sri Devaraj Urs College of Nursing, Tamaka,, Kolar

To,
The Medical Superintendent
R. L. Jalappa, Hospital, Tamaka, Kolar

Sub: Request to conduct a research study at R. L. Jalappa Hospital, Tamaka, Kolar

Respected Sir,

We the students of 4th year Bsc Nursing of Sri Devaraj Urs College of Nursing, Tamaka, Kolar, has to conduct a research project under the guidance of Mrs. Lavanya Subhashini, Asst. Professor of Child Health Nursing Department, we have selected the below mentioned topic for our research project.

TITLE: A STUDY TO ASSESS THE STRESS AMONG THE PARENTS OF NEONATES ADMITTED IN NICU, R. L. JALAPPA HOSPITAL AND RESEARCH CENTER TAMAKA, KOLAR

Hence I request you to grant permission to conduct the study among the parents of children admitted in NICU at R. L. Jalappa Hospital and Research Center Tamaka, Kolar. I request you to kindly consider and do the needful.

Thanking you

Date: 04/11/17

Place: Tamaka

Yours faithfully,
Praveena .S
Soumya Roy
Soundarya
Stefy
Stephina
Rehna

Enclosure ① Synopsis
② Ethical clearance
③ Consent form (English & Kannada)

ANNEXURE – 2

MILES PARENTAL STERSS SCALE

This tool consist of items related to the stress of parents of children admitted in NICU. In each statement there are three levels of stress responses, you will be asked to indicate the severity stress as miled, moderate or applicable to you.

SL.NO	STRESS ITEMS	1	2	3
		MILDLY STESSFUL	MODERATELY STRESSFUL	SEVERELY STRESSFUL
A	Do you experience stress in the following activities Yes/no If yes, how severe it is **PARENTAL ROLE ALTERATION** 1.Inability to care for your child. 2.Inability to share the child with family. 3.Preception of child towards suffering from pain all the items. 4.Inability to provide comfort/help to the child. 5.Restriction to hold the child.(when the gadgets are applied)			

	6.Inability to feed the child. 7.Lack of privacy.			
B	**CHILD APPERANCE/BEHAVIOR** 8.Seeing with tube / IV 9.Watching needles being put in. 10.Expression of fear and disturbed state of mind. 11.Observation of suffering with pain in the child 12.Observation of breathing problems. 13.Expression of discomfort with unfamiliar 14.Observation of child's inability to respond to mother.			
C	**SIGHTS AND SOUNDS** 15.Watching monitors and equipments. 16.Sounds of machineries 17.Seeing other sick children. 18.Observing large number of staff. 19.Seeing other children in crisis. (suffering). 20.Sudden sound of monitor alarms			

D **E**	**SOCIAL FACTORS** Interpersonal relationship 22.Difficulty in obtaining information about the child from ICU staff. 23.Your priority neglected by the staff. 24.Spouse / family members blaming you for child's illness. 25.Worried about other children in the family. **RELIGIOUS FACTORS** 26.Were you attending the religious activities regularly before your child got admitted. Yes/No if Yes, Unable to attend religious activities. 27.Loss of faith in God. **FINANCIAL FACTORS** 28.Insufficient financial resources for the treatment 29.Worried about the extra expenditure on the child care. 30.Inability to concentrate on work thus lead to loss of income.			

G	**ILLNESS RELATED FACTORS** 31.Feel for ignorance towards child's extent of the disease. 32.Inability to understand the outcome of the disease the child is suffering. 33.Inability to understand the child's treatment procedures.			

INTERPRETATION OF THE SCORE

Mild 34 - 51 (<50%)

Moderate 52 - 77 (< 51-75%)

Severe 78 - 102 (76-100%)

ANNEXURE -3

STRUCTURED INTERVIEW SCHEDULE (MILES PARENTAL STRESSS SCALE)

A STUDY TO ASSESS THE STRESS AMONG THE PARENTS OF NEONATES ADMITTED IN NICUAT R .L JALAPPA HOSPITAL TAMAKA,KOLAR

The structured interview schedule is divided into two section. Section A and Section B.

Section A details with demographic data and Section B requires response related to the stress.

Dear participants, I would like you to answer some questions related to your stress due to the admission of your baby in NICU. Kindly respond to each ones. Your answer will be kept confidential.

SOCIO DEMOGRAPHIC DATA
Section A

1. Name of the parents:

2. Age in years :
   a) 20 -21 years
   b) 21 – 30 years
   c) 31 - 40 years
   d) 40 - 50 years

3. Educational status
   a) Primary school
   b) Middle school
   c) High school
   d) PUC
   e) Graduates or above
   f) Technical or professional education

4. Occupation
   a) House wife
   b) Laborer
   c) Private employer
   d) Government employer

5. Income of the family (per month)
   a) <Rs.5000
   b) Rs.5000-8000
   c) Rs.8001-11000
   d) >11000

6. Type of the family
   a) Nuclear
   b) Joint

7. Marital status
   a) Married
   b) Widow
   c) Divorce

8. Number of children
   a) One
   b) Two
   c) > Two

9. Type of the delivery:
   a) Normal vaginal delivery
   b) LSCS

10. Gestational Age
   a) < 37 weeks
   b) 38-42weeks
   c) > above 42 weeks

11. Illness or accidents in the past one month
   a) Yes
   b) No

12. Previous exposure to stress
   a) Yes
   b) No

Section B

1. Name of the baby:

2. Age (in days/month):
   a) 5 – 10 days
   b) 11 -20 days
   c) > 20 days.
3. Sex
   a) Male
   b) Female

4. Birth weight of the baby
   a) Below 1.5kg
   b) 1.6kg- 2.5kg
   c) 2.6kg-3.5kg

5. Ordinal position of the baby in the family
   a) First born
   b) Middle born
   c) Last born

6. APGAR score of the baby
   a) 1'
   b) 5'

ಮೋಜಣಕರ ಒತ್ತಡ ಮಾಪಕ (ತದ್ಯಾವಡಿ)

ಈ ಉಪಕರಣ ಪಾಕ್ಷಿಕ ಹೀಪ್ಸು ನೀವು ಭಯಪಡ್ಡ ಧಾರಾಳವಾದ ಮಕ್ಕಳ ತಾಯಂದಿರ ಒತ್ತಡಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಅಂಶಗಳನ್ನು ಬಳಸಿಕೊಂಡಿದೆ. ಪ್ರತಿಯೊಂದು ಪೇಳಿಕೆಯಲ್ಲಿ 3 ಬಗೆಯ ಒತ್ತಡದ ಪ್ರತಿಕ್ರಿಯೆಗಳಿವೆ. ನಿಮಗೆ ಅನ್ವಯವಾಗುವ ಒತ್ತಡ ತೀವ್ರತೆಯನ್ನು ಕಡಿಮೆ, ಸಾಧಾರಣ ಮತ್ತು ತೀವ್ರ ಎಂದು ಸೂಚಿಸಿರಿ ಕೊಳ್ಳಬಹುದಾಗಿದೆ.

ಸಂಖ್ಯೆ	ಒತ್ತಡದ ಅಂಶಗಳು	1 ಕಡಿಮೆ ಒತ್ತಡವಿದೆ	2 ಸಾಧಾರಣ ಒತ್ತಡವಿದೆ	3 ತೀವ್ರ ಒತ್ತಡವಿದೆ
	ನೀವು ಈ ಕೆಳಗಿನ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಒತ್ತಡ ಅನುಭವಿಸುತ್ತೀರಿ?			
	ಹೌದು/ಇಲ್ಲ			
	ಹೌದು ಎಂದಾದಲ್ಲಿ, ತೀವ್ರತೆ ಎಷ್ಟು			
	ಮೋಜಣಕರ ಪಾತ್ರಗಳಲ್ಲಿ ಮಾತೃತ್ವ			
1.	ನಿಮ್ಮ ಮಗುವಿನ ಆರೈಕೆ ಮಾಡಲು ಅಸಮರ್ಥವಾಗಿರುವುದು			
2.	ಕುಟುಂಬದೊಂದಿಗೆ ಮಗುವನ್ನು ಹಂಚಿಕೊಳ್ಳಲು ಆಗದಿರುವುದು.			
3.	ಮಗುವು ಸದಾ ನೋವಿನಿಂದ ಬಳಲುತ್ತಿರುವಂತೆ ಅನುಭವವಾಗುವುದು.			
4.	ಮಗುವಿಗೆ ಆಯುಷ್ ಒದಗಿಸಲು ಅಥವಾ ಸಮಾಲೋಚನೆ ಮಾಡಲು ಆಗದಿರುವುದು.			
5.	ಮಗುವನ್ನು ಒಡಿದುಕೊಳ್ಳಲು ನಿರ್ಬಂಧ ಇರುವುದು (ಗ್ಲಾಡ್‌ಗೆಜ್ಜಗಳನ್ನು ಅಳವಡಿಸಿದಾಗ)			

	6. ಮಗುವಿಗೆ ಒಬ್ಬಾಂತ ಮಾಡಲು ಸಾಧ್ಯವಾಗುವುದು			
	7. ವಿಂಬಲೆಯ ಕೊರತೆ			
ಬ	ಮನುವಿನ ಗೋಚರತೆ / ನಡವಳಿಕೆ			
	8. ಟ್ಯೂಬುಗಳ ಜೊತೆ ಮಿಗು ಕಾಣಿಸಿಕೊಳ್ಳುವುದು ಅಥವಾ ನರಗಳಲ್ಲಿ ಬಿಳಿಬಿ			
	9. ಸೂಜಿ ಚಾಕುವುದನ್ನು ನೋಡುವುದು			
	10. ಭಯದ ಅಭಿವ್ಯಕ್ತಿ ಮತ್ತು ಕಳವಳದಿಂದಿರುವ ಮಗುವಿನ ಸ್ಥಿತಿ			
	11. ಮಗು ನೋವಿನಿಂದ ಬಳಲುತ್ತಿರುವುದನ್ನು ನೋಡುವುದು			
	12. ಉಸಿರಾಟದ ತೊಂದರೆಯಿಂದ ಬಳಲುತ್ತಿರುವುದನ್ನು ನೋಡುವುದು			
	13. ಪರಿಚಯವಿಲ್ಲದ ಯಂತ್ರಗಳ ಜೊತೆ ಕರಿ ಕರಿ ಜಾಸ್ತಿ ಮಾಡಿಸುವುದು			
	14. ತಾಯಿಗೆ ಪ್ರತಿಕ್ರಿಯೆ ನೀಡಲಾಗದ ಮಗುವಿನ ಸ್ಥಿತಿಯನ್ನು ನೋಡುವುದು			
ಸಿ	ದೃಶ್ಯಗಳು ಹಾಗೂ ಶಬ್ದಗಳು			
	15. ವೀಕ್ಷಣಾಕರಣಗಳು ಮತ್ತು ಉಪಕರಣಗಳನ್ನು ನೋಡುವುದು			
	16. ಯಂತ್ರಗಳ ಶಬ್ದಗಳು			
	17. ಬೇರೆ ರೋಗಪೀಡಿತ ಮಕ್ಕಳನ್ನು ನೋಡುವುದು.			
	18. ದೊಡ್ಡ ಸಂಖ್ಯೆಯಲ್ಲಿ ಸಿಬ್ಬಂದಿಗಳನ್ನು ನೋಡುವುದು			

	19. ನೀವು ಗರ್ಭಿಣಿಯಾ ಮಕ್ಕಳನ್ನು ಹೊಂದುವುದು			
	20. ಸ್ತ್ರೀ ಯಂತ್ರೆದ ಅನಾರೋಗ್ಯ ಬಗ್ಗೆ ತಿಳಿಯುವುದು			
	21. ಹೃದಯ ಬಡಿತವನ್ನು ಉಪಕರಣಗಳಲ್ಲಿ ನೋಡುವುದು			
2	ಸಾಮಾಜಿಕ ಅಂಶಗಳು ವ್ಯಕ್ತಿಗಳ ನಡುವಿನ ಸಂಬಂಧ			
	22. ಮಕ್ಕಳ ತೀವ್ರ ನಿಘಾ ಘಟಕ ಸಂಬಂಧಿಯವರಿಂದ ಮಗುವಿನ ಬಗ್ಗೆ ಮಾಹಿತಿ ಪಡೆಯಲು ಕಷ್ಟವಾಗುವುದು			
	23. ನಿಮ್ಮ ಅದ್ಯತೆಯನ್ನು ಸಿಬ್ಬಂದಿಯವರು ನೀಡಿಸುವುದು.			
	24. ಮಗುವಿನ ಅನಾರೋಗ್ಯಕ್ಕೆ ಪತಿ/ಕುಟುಂಬ ಸದಸ್ಯರು ನಿಮ್ಮನ್ನು ನಿಂದಿಸುವುದು			
	25. ಕುಟುಂಬದ ಇತರೆ ಮಕ್ಕಳ ಬಗ್ಗೆ ಚಿಂತನೆ			
3	ಧಾರ್ಮಿಕ ಅಂಶಗಳು			
	26. ನಿಮ್ಮ ಮಗು ಆಸ್ಪತ್ರೆಗೆ ದಾಖಲಾಗುವ ಮುನ್ನ ಧಾರ್ಮಿಕ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ನಿರಂತರವಾಗಿ ಭಾಗವಹಿಸುತ್ತಾ ಇದ್ದಾರಾ ಹೌದು/ಇಲ್ಲ ಹೌದು ಎಂದಾದರೆ ಧರ್ಮಿಕ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಭಾಗವಹಿಸಲಾಗದಿರುವುದು			

	27. ಧಾರ್ಮಿಕ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ನಿರಾಸಕ್ತಿ 28. ದೇಹದಲ್ಲಿ ಕಂಪನಿ ಕಳೆದುಕೊಂಡಿರುವುದು			
ಎಫ್	ಹಣಕಾಸಿನ ಅಂಶಗಳು 29. ಚಿಕಿತ್ಸೆಗೆ ಉಪಯೋಗಿಸಿದ ಸಾಕಷ್ಟು ಹಣಕಾಸಿನ ಪೂರೈಕೆಯಾಗದಿರುವುದು 30. ಮಗುವಿನ ಕಾಲಜಿಗೆ ಉಪಯೋಗಿಸಿದ ಬೆಡ್ಡಿನ ಬೆಚ್ಚಿದ ಬಗ್ಗೆ ಚಿಂತೆ 31. ಕೆಲಸದ ಕಡೆ ಗಮನಹರಿಸಲಾಗದಿರುವುದು ಮತ್ತು ಅದರಿಂದ ಆದಾಯ ಕಡಿಮೆಯಾಗಿರುವುದು			
ಜಿ	ಆರೋಗ್ಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಅಂಶಗಳು 32. ಮಗುವಿನ ಕಾಯಿಲೆಯ ಪ್ರಮಾಣ ತೋಡಿ ತಿರಸ್ಕಾರದ ಭಾವನೆ 33. ಮಗು ಬಳಲುತ್ತಿರುವ ರೋಗದ ಪರಿಣಾಮವನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳಾಗದಿರುವುದು 34. ಮಗುವಿನ ಚಿಕಿತ್ಸೆಯ ಕಾರ್ಯವಿಧಾನವನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳಲಾಗದಿರುವುದು			

ಗಳಿಸಿದ ಅಂಕಗಳ ಮೌಲ್ಯಾಂಕನ ಮಾಹಿತಿ

ಕಡಿಮೆ 34–56 (<50%)

ಸಾಧಾರಣ 57–79 (51–75%)

ತೀವ್ರ 80–102 (76–100%)

೫. ಕುಟುಂಬದ ವಿಧ

ಅ. ಚಿಕ್ಕ ಕುಟುಂಬ

ಬ. ದೊಡ್ಡ ಕುಟುಂಬ

೬. ಮದುವೆ ರೀತಿ

ಅ. ಏರ್ಪಾಟಿತ

ಬ. ಪ್ರಧುವೆ.

ಇ. ಪ್ರೇಮೀದನ

೮. ಮಕ್ಕಳ ಸಂಖ್ಯೆ

ಅ. ಒಂದು

ಬ. ಎರಡು

ಇ. ಎರಡಕ್ಕಿಂತ ಹೆಚ್ಚು

೯. ಹೆರಿಗೆ ವಿಧಾನ

ಅ. ಸಾಮಾನ್ಯ ರೀತಿಯ ಪ್ರಸೂತಿ

ಬ. ಶಸ್ತ್ರಚಿಕಿತ್ಸೆ ಹೆರಿಗೆ

೧೦. ಗರ್ಭಾವಸ್ಥೆಯ ವಯಸ್ಸು

ಅ. ೩೭ ವಾರಗಳಿಗಿಂತ ಕಡಿಮೆ

ಬ. ೩೮-೪೨ ವಾರಗಳು

ಇ. ೪೨ ವಾರಗಳಿಂತ ಮೇಲೆ

೧೧. ಅನಾರೋಗ್ಯ ಅಥವಾ ಅಪಘಾತ ಕಳೆದ ಒಂದು ತಿಂಗಳಿಂದ

ಅ. ಹೌದು

ಬ. ಇಲ್ಲ

೧೨. ಒತ್ತಡಕ್ಕೆ ಒಂದಿನ ಬಡ್ತಿಗೆ

ಅ. ಹೌದು

ಬ. ಇಲ್ಲ

ವಿಭಾಗ –ಬಿ

೧. ಮಗುವಿನ ಹೆಸರು

೨. ವಯಸ್ಸು (ದಿನ/ತಿಂಗಳು)

೩. ಲಿಂಗ

ಅ. ಸ್ತ್ರೀ ಲಿಂಗ
ಆ. ಪುಲಿಂಗ

೪. ಹುಟ್ಟಿದ ತೂಕ

ಅ. ೧.೫ ಕೆಜಿ ಗಿಂತ ಕಡಿಮೆ
ಆ. ೧.೬ ಕೆ.ಜಿ – ೨.೫ ಕೆ.ಜಿ
ಇ. ೨.೬ ಕೆ.ಜಿ– ೩.೫ ಕೆ.ಜಿ

೫. ಕುಟುಂಬದಲ್ಲಿ ಮಗುವಿನ ಸಾಮಾನ್ಯ ಸ್ಥಾನ

ಅ. ಮೊದಲನೆ ಮಗು
ಆ. ಮಧ್ಯದ ಮಗು
ಇ. ಕಡೆ ಮಗು

೬. APGAR ಸಂಖ್ಯೆ

ಅ. ೧ನೇ ನಿಮಿಷ
ಆ. ೫ನೇ ನಿಮಿಷ

ಮಗುವಿನ ಪೋಷಕರ ವಯಕ್ತಿಕ ಮಾಹಿತಿ

೧. ಪೋಷಕರ ಹೆಸರು

೨. ವಯಸ್ಸು (ದಿನಗಳು/ವರ್ಷ)

ಅ. ೨೦ ವರ್ಷಕ್ಕಿಂತ ಕಡಿಮೆ

ಆ. ೨೧ ರಿಂದ ೩೦ ವರ್ಷ

ಇ. ೩೧ ರಿಂದ ೪೧ವರ್ಷ

ಈ. ೪೧ ರಿಂದ ೫೦ ವರ್ಷ

೩. ವಿದ್ಯಾರ್ಹತೆ

ಅ. ಅನಕ್ಷರಸ್ಥ
ಆ. ಪ್ರಾಥಮಿಕ ಶಾಲೆ
ಇ. ಮಾಧ್ಯಮಿಕ ಶಾಲೆ
ಈ. ಪ್ರೌಢಶಾಲೆ
ಉ. ಪಿಯುಸಿ
ಊ.ಪದವೀಧರ ಅಥವಾ ಅದಕ್ಕಿಂತ ಮೇಲ್ಪಟ್ಟ
ಋ. ಸ್ನಾತಕೋತ್ತರ ಪದವಿ

೪. ಉದ್ಯೋಗ

ಅ. ಗೃಹಿಣಿ
ಆ. ಕೂಲಿ
ಇ. ಖಾಸಗಿ ಉದ್ಯೋಗ
ಈ. ಸರ್ಕಾರಿ ನೌಕರ

೫. ಕುಟುಂಬ ಆದಾಯ (ಒಂದು ತಿಂಗಳಿಗೆ)

ಅ. ೫೦೦೦ ಕ್ಕಿಂತ ಕಡಿಮೆ
ಆ. ೫೦೦೦-೮೦೦೦
ಇ. ೮೦೦೧-೧೧೦೦೦
ಈ. ೧೧೦೦೦ ಮೇಲ್ಪಟ್ಟು

INFORMED CONSENT FORM

Name of the investigator –

Ms.Stephina, Ms.Stefy, Ms.Praveena, Ms.Rehna, Ms.Soundarya, Ms.Soumya

Name of the Organization: R.L. Jalapa Hospital & Research Centre attached to Sri Deva raj Urs Medical Collage Tamaka Kolar

Title of study: "A study to assess the stress among the parents of neonates admitted in NICU at R. L. Jalappa Hospital and Research centre Tamaka,Kolar."

If you agree to participate in the study we will collect information as per Performa from you or a person responsible for you or both.

You are invited to take part in this research study. You are being asked to participate in this study because you satisfy our eligibly criteria. The information in the given document is meant to help you decide whether or not to take part Please feel free to ask any queries.

I have read or it has been read and explained to me in my own language. I have understood the purpose of this study, the nature of information that will be collected and disclosed during the study. I had the opportunity to ask questions and the same has been answered to my satisfaction. I understand that I remain free to withdraw from this study at any time and this will not change my future care. I the undersigned agree to participate in this study and authorize the collection and disclosure of my personal information for presentation and publication.

Patient's signature Date:

Person obtaining consent and his/her signature:

Principal investigator signature

For any clarification you are free to contact the investigator:

Principal Investigator

Ms.Stephina Ms.Stefy

Ms.Soundarya Ms.Rehna

Ms.Sowmya Ms.Praveena

ANNEXURE 4

FORMULAS USED FOR DATA ANALYSIS

$$\textbf{MEAN} = \frac{\sum X}{N}$$

$$\textbf{CHI SQUARE TEST} = X^2 = \frac{\sum (O - E)^2}{E}$$

ANNEXURE 5

MASTER DATA SHEET

SAMPLE	Age	Education	Occupation	Income	TOF	MS	NOC	TOD	GA	ILLNESS	PR.STS	B.AGE	SEX	BWT	OR.PSN	APGAR	TOTAL.
1	1	3	0	3	0	1	1	1	1	0	0	0	0	1	1	1	15
2	1	2	1	3	0	0	0	0	0	0	1	0	0	0	1	1	12
3	2	1	1	2	0	0	0	1	0	1	0	0	1	1	0	1	14
4	1	1	1	0	0	1	0	1	1	0	0	2	1	1	1	1	12
5	2	1	1	3	0	0	0	1	1	1	0	0	0	0	1	1	12
6	1	3	1	1	2	0	0	1	0	1	1	0	0	1	1	1	14
7	1	1	1	1	0	0	0	0	0	1	1	0	1	1	0	1	9
8	1	3	1	3	0	0	0	0	0	1	0	0	1	1	0	1	12
9	1	3	1	3	0	0	0	0	1	1	0	0	1	1	0	1	13
10	2	2	1	3	0	1	0	1	1	0	0	0	0	1	0	1	13
11	2	2	3	1	3	0	0	0	0	1	1	0	0	1	0	1	15
12	1	1	1	1	0	0	1	0	0	1	1	0	0	1	1	1	10
13	1	3	1	3	0	0	0	0	1	0	0	0	0	0	0	1	10
14	2	3	1	3	0	0	0	0	0	1	0	0	0	1	0	1	12
15	1	3	1	3	1	0	1	1	1	1	0	0	1	1	1	1	17
16	1	1	1	1	0	0	0	0	1	1	0	0	1	0	2	1	10
17	1	3	1	3	1	0	1	0	1	0	0	0	1	1	1	1	15
18	1	1	1	1	1	0	0	0	0	1	1	0	0	1	0	1	9
19	2	2	1	3	1	0	1	0	1	1	1	0	1	1	1	1	17
20	1	3	1	3	0	0	0	1	1	1	0	0	1	1	0	1	14
21	1	1	1	1	0	0	1	0	0	1	0	0	1	1	1	1	10
22	1	1	1	1	0	0	1	0	1	1	0	0	1	1	1	1	11
23	1	1	1	2	0	1	0	0	1	1	0	0	1	1	1	1	12

24	1	1	1	2	0	0	0	0	0	1	1	0	0	0	0	1	8
25	1	1	1	2	0	0	1	0	0	1	1	0	1	1	0	1	11
26	1	1	1	2	0	0	1	0	0	1	1	0	1	1	1	1	12
27	1	1	1	1	0	0	0	0	0	1	1	0	0	2	0	1	9
28	1	1	1	2	0	0	0	0	0	1	1	0	0	1	0	1	9
29	1	1	1	2	1	0	1	0	0	0	0	0	0	2	1	1	11
30	1	1	1	1	1	0	1	0	0	1	1	0	0	2	1	1	12
31	1	1	1	1	0	0	0	0	0	1	1	0	0	1	0	1	8
32	1	1	1	2	0	1	0	0	1	1	0	0	1	1	1	1	12
33	1	1	1	2	0	0	1	0	0	1	1	0	0	0	1	1	10
34	1	1	1	2	0	0	1	0	0	1	1	0	0	1	1	1	11
35	1	1	1	2	0	0	0	0	0	0	0	0	0	1	1	1	8
36	1	1	1	2	0	0	1	0	0	1	1	0	1	1	1	1	12
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45	1	0	1	2	0	0	0	1	0	1	1	0	1	2	0	1	11
46	1	1	2	1	0	0	1	0	1	1	1	0	0	2	0	1	12
47	1	4	2	3	0	2	1	1	0	1	1	0	0	1	0	1	18
48	2	2	2	3	1	2	1	0	0	1	0	1	1	0	0	1	17
49	1	3	1	3	0	0	0	0	1	1	0	0	0	1	0	1	12
50	2	3	1	3	1	0	0	0	1	1	0	0	0	0	0	1	13

51	2	2	1	3	0	0	0	0	1	1	1	0	0	1	0	1	13
52	1	3	1	3	0	0	0	0	1	1	0	0	0	1	0	1	12
53	1	3	0	2	0	0	0	0	0	1	0	0	0	1	1	1	10
54	1	3	1	3	0	1	1	0	1	1	1	0	1	1	1	1	17
55	1	3	1	3	0	0	0	0	1	1	1	0	0	1	1	1	14
56	2	3	1	3	1	0	0	0	1	0	1	0	0	1	0	1	14
57	1	3	1	3	0	0	0	0	1	1	0	0	0	0	0	1	11
58	1	3	1	3	0	0	0	0	1	1	1	0	0	1	0	1	13
0	1	2	1	3	0	0	0	0	1	1	1	1	0	0	0	1	12
60	2	3	1	3	1	0	0	0	1	1	1	0	0	1	0	1	15

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