



“A Pre- Experimental Study To Assess Effectiveness Of Parent Information Education And Communication Program On Coping With Stress And Anxiety Among Mothers Of Preterm Infant In Selected Hospital Of District Kangra (H.P)”.

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ABSTRACT-Aim of the study was to assess effectiveness of parent information education and communication program on coping with stress and anxiety among mothers of preterm infant in selected hospital of district Kangra (H.P).

Methodology: A quantitative research approach and pre-experimental research design was used to conduct the study. Non probability Convenient Sampling technique was used to select 60 mothers of preterm infant of district Kangra, Himachal Pradesh. A self-structured knowledge questionnaire was used to assess the knowledge scores. Analysis of collected data was done according to the study and data analyzed by descriptive and inferential statistics.

Result: The study was shown that majority of mothers of preterm infant i.e. 91.7% (55 out of 60) were having average knowledge, 8.3% (5 out of 60) were having Good knowledge through self structured knowledge questionnaire on coping with stress and anxiety among mothers of preterm infant. The knowledge score of mean post-test was 16.08 was higher than pre-test knowledge score 8.95 at $p < 0.001$ level of significance which shows the significant difference between mean pre-test and post-test scores on coping with stress and anxiety. It showed that information, education and communication program was effective in improving knowledge of mothers of preterm infant on coping with stress and anxiety.

Conclusion: Information education and communication program was an effective strategy for improving mothers of preterm infant. As mothers of preterm infant were very possessive and caring for their baby that's why mothers of preterm infants showed interest in Information, education and communication program to help manage and reduce stress and anxiety. I had seen a notable reduction in stress and anxiety levels among participant.

Keyword: Coping with stress and anxiety, Information education and communication program.

INTRODUCTION

BACKGROUND OF THE STUDY

“CHALLENGES ARE WHAT MAKE LIFE INTERESTING AND OVERCOMING THEM IS WHAT MAKES LIFE MEANINGFUL.”

– Joshua J. Marine.

Preterm birth is also called premature birth. Premature infants are otherwise called as preemies. The premature babies come to the world earlier than the full term infants. Babies born 37 to 42 weeks of gestation we called as a full term. Premature babies are a vulnerable group of babies, because they are physiologically unstable and neurologically immature. They cannot adopt the environmental situation and stress, which may adversely affect their growth and neuro-motor development. Growth is an essential feature in the life cycle of every child but it is delayed in preterm babies. New motherhood is often thought of as a time of great joy; however, unexpected problems during pregnancy, such as the birth of a preterm baby, can be stressful for mothers. Preterm is defined as babies born alive before 37 weeks of pregnancy are completed. There are sub-categories of preterm birth, based on gestational age: extremely preterm (less than 28 weeks), very preterm (28 to 32 weeks), moderate to late preterm (32 to 37 weeks). Babies may be born preterm because of spontaneous preterm labour or because there is a medical indication to plan an induction of labour or caesarean birth early^[1]

An estimated 15 million babies are born too early every year. That is more than 1 in 10 babies. Approximately 1 million children die each year due to complications of preterm birth. Many survivors face a lifetime of disability, including learning disabilities and visual and hearing problems. Globally, prematurity is the leading cause of death in children under the age of 5 years. Inequalities in survival rates around the world are stark. In low-income settings, half of the babies born at or below 32 weeks (2 months early) die due to a lack of feasible, cost-effective care such as warmth, breastfeeding support and basic care for infections and breathing difficulties. In high-income countries, almost all these babies survive. Suboptimal use of technology in middle-income settings is causing an increased burden of disability among preterm babies who survive the neonatal period. ^[2]

The NICU has been reported to be a stressful place for parents and infant, characterised by separation and uncertainty surrounding their babies' mortality. Research has begun to investigate the effects of an extremely premature birth on maternal mental health, partly due to medical advances

increasing survival rates of premature infants. Mothers of extremely premature infants experience a so-called “emotional crisis” during the postpartum period, and qualitative work has further demonstrated mothers’ unique concerns which render them hyper vigilant and uncertain about motherhood.^[3]



Today’s children are tomorrow’s citizen and leaders. Kangaroo mother care is the one of the important caring skill of the preterm babies. In developing countries like India, use of incubators is the one of the management of premature babies exerts a heavy financial burden on parents of premature babies. Incubators are not affordable by the family members of premature babies because of high cost. Kangaroo mother care (KMC) is the one of the effective and low cost method to provide the care to the premature babies. So mothers of preterm babies should be aware about kangaroo mother care. Kangaroo mother care not only prevents hypothermia in the premature babies but also improves bonding between baby and mother. Nurses play a prime role in educating mothers of preterm babies regarding kangaroo mother care as they are the ones who interact more with parents than any other health team member.^[4]

NEED OF THE STUDY

In the year 2000 the World Health Organization had set the targets of Health for all. In particular, improvements were sought in maternity care provision and a reduction in prenatal mortality rates. The incidence of preterm birth has not reduced but it leads to improved neonatal management, increasing number of small babies who are surviving.^[5]

After a preterm birth Mothers with depressive symptoms show negative perceptions of themselves, their baby, and their relationship. Although most studies about the effects of mothers’ postnatal mood on child development focus above all on postpartum depression, in the last decades, researchers have found that postpartum anxiety has independent effects, just as postpartum depression. In case of premature birth, mothers show high levels of anxiety symptoms that might compromise the maternal functions and the mother-infant interactions.^[6]

An estimated 13.4 million babies were born too early in 2020. That is more than 1 in 10 babies. Approximately 900 000 children die in 2019 of complications of preterm birth. Many survivors face a

lifetime of disability, including learning disabilities and visual and hearing problems. Globally, prematurity is the leading cause of death in children under the age of 5 years. Inequalities in survival rates around the world are stark. In low-income settings, half of the babies born at or below 32 weeks (2 months early) die due to a lack of feasible, cost-effective care such as warmth, breastfeeding support and basic care for infections and breathing difficulties. In high-income countries, almost all these babies survive. Suboptimal use of technology in middle-income settings is causing an increased burden of disability among preterm babies who survive the neonatal period.^[7]

Moreover, as far as we know, a few studies have compared maternal representations of moderately preterm and very preterm infants in the NICU during the first moments after birth. Despite the outcomes of very preterm birth are increasingly acknowledged, less attention is given to parents of moderately preterm infants. Furthermore, it remains unclear which specific factors could be most predictive of the quality of maternal representation in the NICU. Starting from the above considerations, our study aimed to more deeply explore the maternal and emotional experience in terms of mental representations, as reflected in the CLIP interview, considering depression, anxiety symptoms, and gestational age at the time of delivery.^[8]

The Significant level of risk factors of a preterm delivery included low socioeconomic status, less pre-gravid weight, inadequate weight gain during the pregnancy, previous preterm delivery, history of infertility problems, induced abortion termination of the previous pregnancy, vaginal spotting or bleeding during the pregnancy, of leisure-time physical activities during the pregnancy, ante partum haemorrhage, abnormal placental implantation, 16 alcohol consumption prior to the third trimester of pregnancy, and negative attitudinal expression toward the pregnancy.^[9]



PROBLEM STATEMENT

“A Pre- experimental study to assess effectiveness of parent information education and communication program on coping with stress and anxiety among mothers of preterm infant in selected hospital of district Kangra (H.P)”

OBJECTIVES

- To assess the pre test knowledge scores on coping with stress and anxiety among mothers of preterm infant.
- To assess the post test knowledge scores on coping with stress and anxiety among mothers of preterm infant.
- To compare the pretest and post test knowledge scores coping with stress and anxiety among mothers of preterm infant.
- To find out the association of post test knowledge scores on coping with stress and anxiety among mothers of preterm infant with their socio demographic variables.

HYPOTHESES

- **H₁:** There will be a significant difference between pre test and post test knowledge scores regarding coping with stress and anxiety among mothers of preterm infant.
- **H₂:** There will be a significant association between post test knowledge scores on coping with stress and anxiety among mothers of preterm infant with their selected socio-demographic variables.

REVIEW OF LITERATURE

The review of literature is an extensive, systematic selection of potential sources of previous work, which acquaints the investigator with fact finding work after scrutinization.

Polit and **Hungler** state the review of literature provides readers with a background for understanding the significance of the study.

Review of literature on the basis of my study has been divided into three section:

- **Section A:** Literature related to prevalence of preterm infant
- **Section B:** Literature related to coping with stress and anxiety among mothers of preterm infant
- **Section C:** Literature related to information education and communication program on coping with stress and anxiety among mothers of preterm infant.

Section A: Literatures related to prevalence of preterm infant

Deshwali Akanksha 2022 conducted a cross-sectional two-arm study on prevalence of mental health problems among mothers of preterm infants admitted to the neonatal intensive care unit (NICU). 130 mothers in each group, with either term infants not in NICU or preterm infants admitted to NICU, underwent mental health assessment using the Generalized Anxiety Disorder Scale, Centre for Epidemiologic Studies—Depression Scale, Stanford Acute Stress Reaction Questionnaire and Modified Parental Stress Scale—NICU. Anxiety (66.2% versus 46.9%) and depression (45.4% versus 23.1%) were more common among NICU mothers. Preterm birth with NICU admission of the infant is more stressful

for a mother than the term birth of a healthy neonate. It affects her mental health and quality of life. Both the obstetrician and the paediatrician should be mindful of this.^[10]

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C Zozaya 2020 conducted a cohort study with data from the Spanish Neonatal Network—SEN1500 database. The study period comprised from January 2005 to December 2017. Preterm infants <32 weeks of gestational age at birth without major congenital malformations were included for analysis. Among the 25,821 included infants, NEC incidence was 8.8% during the whole study period and remained stable when comparing 4-year sub periods. However, more cases were surgically treated (from 48.8% in 2005–2008 to 70.2% in 2015–2017, $p < 0.001$). Mortality improved from 36.7% in the 2005–2008 to 26.6% in 2015–2017 ($p < 0.001$). Breastfeeding rates improved over the studied years (24.3% to 40.5%, $p < 0.001$), while gestational age remained invariable (28.5 weeks, $p = 0.20$). Prophylactic probiotics were implemented during the study period in some units, reaching 18.6% of the patients in 2015–2017. The incidence of necrotizing enter colitis remained stable despite the improvement on protective factors frequency^[12]

Section B: Literature related to coping with stress and anxiety among mothers of preterm infants

Kim Lam Soh 2019 conducted a study to determine Stress and anxiety among mothers of premature infants in Malaysian neonatal intensive care unit vulnerable premature infants commonly require special care in the NICUs. In most cases, prolonged hospitalization results in stress and anxiety for the mothers. A non-probability convenience survey was used in a public hospital, with 180 mothers completing the 26-item Perceived Stress Scale (PSS) and a 40-item State-Trait Anxiety Inventory (STAI). 56.5% of mothers had high levels of stress, 85.5% of mothers had a high level of state-anxiety and 67.8% of mothers had a high level of trait-anxiety. The stress experienced by these mothers had a significant relationship with anxiety, and was found to be associated with state and trait anxiety levels, but not with maternal and infant characteristics. Mothers in this setting revealed high levels of stress and anxiety during their premature infants' NICU admission. An immediate interventional programme focusing on relieving mothers' anxiety and stress is needed to prevent maternal stress and anxiety at an early stage.^[13]

P Alexopoulou 2018 conducted a study to measure state and trait anxiety, as well as depression, among parents of preterm infants hospitalized in neonatal intensive care units (NICUs). A convenience sample of 200 parents of preterm infants (124 mothers and 76 fathers) hospitalized in two Greek paediatric hospital NICUs participated in the study. Among the 200 participating parents, mothers (which constituted 62% of the total sample) experienced higher levels of state anxiety, trait anxiety and depression than the fathers ($p = 0.04$, $p < 0.001$ and $p = 0.001$, respectively). State anxiety scores were also higher in individuals aged ≥ 40 years ($p = 0.038$). Other factors that contributed to higher levels of state anxiety, trait anxiety and depression included being unemployed, living in rural areas and having complications during pregnancy. The severity of state anxiety, trait anxiety and depression among parents of preterm infants hospitalized in NICUs is influenced by various socio-demographic factors and by clinical characteristics of the infants^[14]

S. Rajalakshmi 2017 conducted a study to assess the level of stress and coping strategies among mothers of preterm infants admitted in Neonatal Intensive Care Unit at selected hospital, Pondicherry. A quantitative research approach was selected for this study. The study was conducted at selected hospital, Pondicherry. The target population is 30. The study consists of the all the mothers of preterm newborns admitted in NICU. Purposive sampling technique was selected for this study. The Sample size of the study consists of 30 mothers of preterm newborns.. From the study it was concluded that 3.33% of mothers had mild stress, 63.33% of mothers had moderate stress and 33.33% of mothers had severe stress. 9.99% of mothers had mild coping, 20% of mothers had moderate coping, 23.33% of mothers had poor coping.^[15]

Section C: Literature related to information education and communication program on coping with stress and anxiety among mothers of preterm infants.

ES Herini 2022 conducted a study to identify Interventions to reduce parental stress and increase readiness of parents with preterm infants in the neonatal intensive care unit. Thirteen articles were found and selected for review. The main psychological problem of parents of preterm babies includes stress, anxiety, and depression. There were three types of interventions given to overcome parental stress and improve maternal competencies but the most used interventions were music therapy and parental involvement in preterm care while in the neonatal intensive care. Parental stress, mothers' anxiety, and depression are the main problems of parents of a preterm neonate. To address these psychological problems and increase maternal competencies, it is necessary to combine several interventions.^[16]

G Pathak 2022 conducted a descriptive/observational cross-sectional study to assess the level of stress and coping strategies in parents of neonates admitted in Neonatal Intensive Care Unit (NICU) at a tertiary care centre in North India Most of the parents were moderately stressed (93.3%). The most impactful stress domain was 'Emotional' and the most impactful question out of that domain was 'constant fear of child's recovery'. Of all the coping strategies, cognitive strategy was mostly used by parents. There was a negative correlation between stress and coping strategies ($r = -0.09$) but the result

was statistically insignificant (p -value = 0.16). Of all the demographic variables, the birth order of the baby was significantly related to stress (p -value < 0.05), while parent's education, monthly family income and area of residence were significantly related to coping (p -value < 0.05, <0.05 and <0.001, respectively). Most of the parents were moderately stressed, with cognitive strategy being the most used by parents as the coping mechanism.^[17]

Dahal Anika 2020 conducted a pre-experimental study to assess the effectiveness of Information, Education and Communication package on knowledge on developmental care among mothers of low birth weight babies admitted to Selected Hospital, Chennai, Tamil Nadu. The samples were selected by non-probability convenience sampling technique. The tool used for data collection was a structured questionnaire. The result indicated that in the pre-test 40% had inadequate knowledge, 50% had moderately adequate knowledge and 10% had adequate knowledge and in the post-test all the samples had adequate knowledge. The pre-test mean score was 16.8 with a S.D of 3.867 and post-test mean score was 28 with S.D of 1.183. The 't' value of 8.763 indicates that there was a high level of significance at $p < 0.001$ between the pre-test and post-test level of knowledge showing that the IEC package was effective in improving the knowledge.^[18]

METHODOLOGY

Research methodology is the most important aspect of the research as it is the framework for conducting the study. It is a significant part of any research which enables the researcher to organize the procedure of collecting reliable data for the problem under study or investigation. This chapter deals with the description of the methodology and the various steps adapted to collect and organize data for the study. The purpose of this chapter is to communicate to the readers what investigations were carried out on to solve the problem or answer the research question.

According to **Pilot and Beck** research methods are the techniques used by the researcher to structure a study to gather and analyze the information relevant to the research question.

The methodology section includes the research approach, research design, variable, population, sample size, sampling technique, inclusion and exclusion criteria, selection and development of tool, description of tool, validity of tool, reliability of tool, pilot study, data collection, procedure, ethical consideration and plan for data analysis.

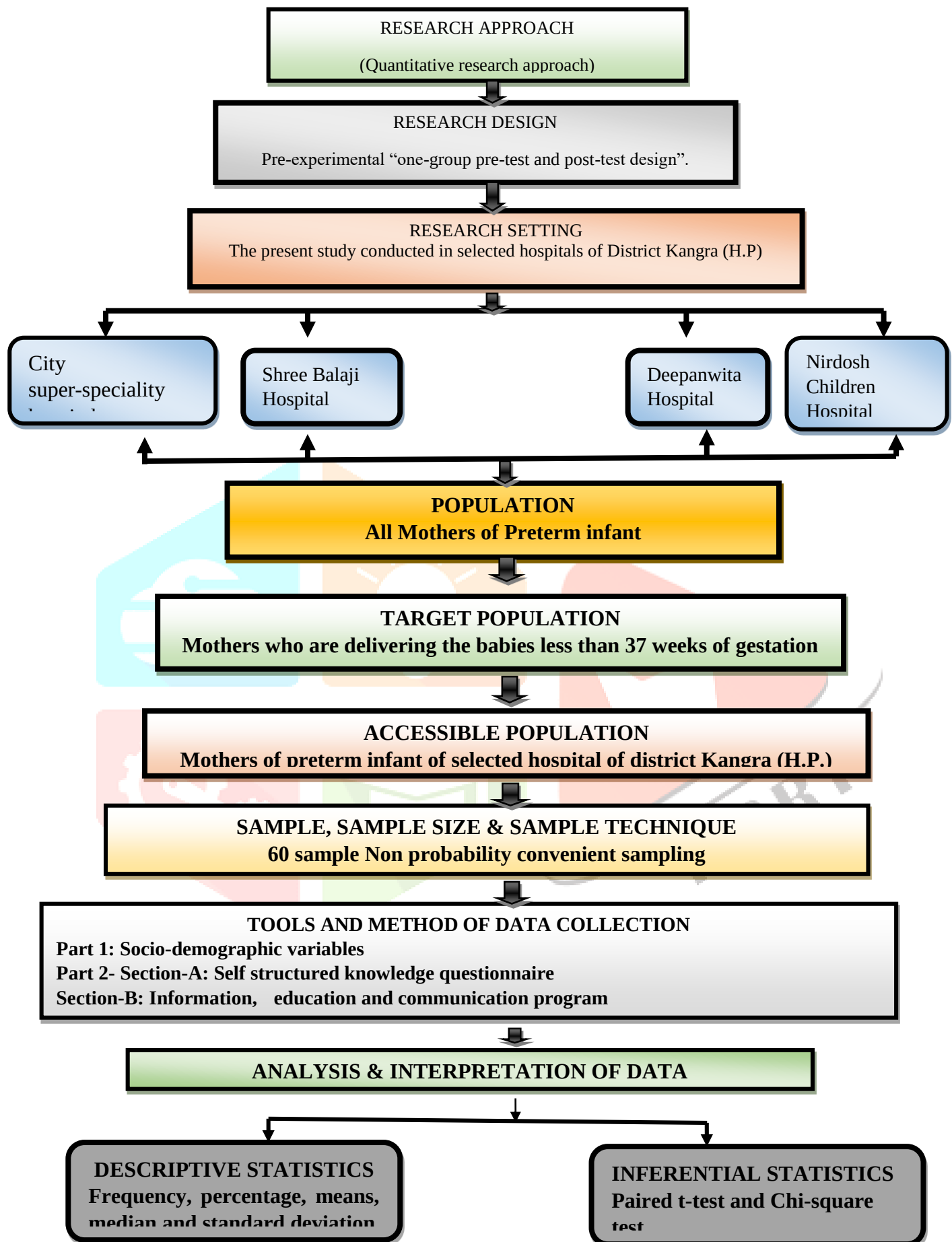


FIGURE-2: SCHEMATIC PRESENTATION OF METHODOLOGY

DESCRIPTION OF TOOL

Accomplish the objectives of the study, self structured knowledge questionnaire was used to assess the effectiveness of parent information, education and communication program program on coping with stress and anxiety among mothers of preterm infant. It consisted of two parts:

Part 1: Socio-demographic Variables

The first part of tool consist of some items for obtaining an information about the selected background factor such as age (in years), number of children, education status, occupation, religion, monthly family income (in rupees), type of family, number of day hospitalized(less than), area of residence, source of knowledge, provide knowledge to mothers of preterm attended any education programme on coping with stress and anxiety.

Part 2: Consist of Section A and B

SECTION-A: (Self Structured knowledge questionnaire)

It consists of self structured knowledge questionnaire which seeks facts and information on coping with stress and anxiety. It consists of 30 multiple choice questions where total score is 30.

SECTION-B: (Information, education and communication program)

It consists of written material, A.V. aids, video, and booklet designed to provide knowledge on preterm infant and coping with stress and anxiety.

SCORING PATTERN

The self- structured knowledge questionnaire consisted of 30 questions. In which right answer was documented as correct one mark and wrong were documented were as zero marks. The complete range was 0-30.

KNOWLEDGE SCORE	PERCENTAGE	RANGE
Poor	≤33	0-10
Average	34-66	11-20
Good	≥67	21-30

ETHICAL CONSIDERATION

- A written permission was obtained from principal, Netaji Subhash college of Nursing, Palampur.
- Ethical clearance was taken from ethical clearance committee of Netaji Subhash College of Nursing.
- Written permission was taken from medical officers of selected hospital of district Kangra (H.P).
- Written informed consent was taken from each study sample anonymity and confidentiality of each sample will be assured and maintained throughout the study.

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with analysis and interpretation of data collected to evaluate the effectiveness of parent information education and communication program on coping with stress and anxiety among mothers of preterm infant in selected hospital of district Kangra (H.P).

Polit and Beck stated Data analysis is the systematic organization and synthesis of research hypothesis using in data.

Burns and Grove states that Data analysis is the technique used to reduce, organize and give meaning of data.

The analysis and interpretation of data of this study was based on data collected through self-structured questionnaire tool to assess effectiveness of parent information education and communication program on coping with stress and anxiety among mothers of preterm infant in selected hospital of district Kangra (H.P).

Analysis and interpretation of data of this study were based on objective of study and hypothesis. The objective of the study were to assess effectiveness of parent information education and communication program on coping with stress and anxiety among mothers of preterm infant in selected hospital of district Kangra (H.P).

The data findings have been organized and presented under the following objectives:

- To assess the pre test knowledge scores on coping with stress and anxiety among mothers of preterm infant.
- To assess the post test knowledge scores on coping with stress and anxiety among mothers of preterm infant.
- To compare the pre-test and post test knowledge scores coping with stress and anxiety among mothers of preterm infant.
- To find out the association of post-test knowledge on coping with stress and anxiety among mothers of preterm infant with their socio demographic variables.

ORGANIZATION AND PRESENTATION OF DATA

Data was entered in master sheet, for tabulation and statistical processing in order to analyze and interpret using descriptive and inferential statistics methods. The analyzed data was organized according to the objectives and presented under the following sections:

SECTION-I:

- Distribution of socio demographic variables of study participants.

SECTION-II:

- Assess the pre-test knowledge scores on coping with stress and anxiety among mothers of preterm infant.

SECTION-III:

- Assess the post-test knowledge scores on coping with stress and anxiety among mothers of preterm infant.

SECTION-IV:

- Comparison between pre-test and post test knowledge scores coping with stress and anxiety among mothers of preterm infant.

SECTION-V:

- Association of post-test knowledge on coping with stress and anxiety among mothers of preterm infant with their socio demographic variables.

SECTION –I**DISTRIBUTION OF SOCIO DEMOGRAPHIC VARIABLES**

This section describe the selected socio demographic variables, Age, Number of Children, Education Status, Occupation, Religion, Monthly Family income, Type of family, Number of day Hospitalized , Area of residence, Source of knowledge among mothers of preterm infant. The data is represented in the form of frequency & percentage distribution according to socio-demographic variables.

Table- 1

FREQUENCY AND PERCENTAGE DISTRIBUTION OF SELECTED SOCIO-DEMOGRAPHIC VARIABLES ON MOTHERS OF PRETERM INFANT

N=60

Socio demographic variables	Option	%	f
Age (in years)	18-25 years	13.3%	8
	26-30 years	40.0%	24
	31-35 years	30.0%	18
	36-40 years	16.7%	10
Number of Children	One	58.3%	35
	Two	40.0%	24
	Three	1.7%	1
	Four	0.0%	0
Education Status	Matriculation	21.7%	13
	Graduation	60.0%	36
	Post-Graduation and above	18.3%	11
	Non formal	0.0%	0
Occupation	Self- employed	5.0%	3
	Govt. employee	5.0%	3
	Private Employee	30.0%	18
	House wife	60.0%	36
Religion	Hindu	93.3%	56
	Muslim	0.0%	0
	Christian	0.0%	0
	Sikh	6.7%	4
Monthly Family income	<500	0.0%	0
	5000-20,000	0.0%	0
	20,000- 40,000	50.0%	30
	>40,000	50.0%	30
Type of family	Joint	8.3%	5
	Nuclear	91.7%	55
	Extended Family	0.0%	0
	Single parent	0.0%	0
Number of day Hospitalized (less than)	2 days	0.0%	0
	5 days	20.0%	12

	7 days	71.7%	43
	8 days and above	8.3%	5
Area of residence	Rural	3.3%	2
	Urban	96.7%	58
Source of knowledge	Peer group	0.0%	0
	Medical professional	5.0%	3
	Relatives	0.0%	0
	Social media	95.0%	57

Table 1: Depicts the socio-demographic variables on mothers of preterm infants

According to age (in years), majority of mothers of preterm infant are in the age range of 26-30 years (40%), followed by 31-35 years (30%) and 36-40 years (16.7%). A smaller portion falls in the 18-25 years age group (13.3%).

According to number of Children, majority of mothers of preterm infant have one child (58.3%), with a significant portion having two children (40%). Only a very small percentage have three children (1.7%), and (0.0%) have four children.

According to Educational Status, majority of highest percentage of mothers of preterm infant have completed graduation (60%), followed by post-graduation and above (18.3%) and matriculation (21.7%) and (0.0%) mothers of preterm infants reported having a non-formal education.

According to Occupation majority of mothers of preterm infants are housewives (60%), followed by private employees (30%). A small percentage are self-employed and government employees (5% each).

According to Religion, majority of mothers of preterm infant are Hindu (93.3%), followed by Sikh (6.7%). There are (0.0%) participants from Muslim or Christian backgrounds.

According to Monthly Family Income, majority of the mothers of preterm infants (50.0%) have a monthly family income between 20,001 and 40,000, (50.0%) mothers of preterm infants have a monthly family income above 40,000 and (0.0%) mothers of preterm infant have a monthly family income <5000 and 5001-20,000.

According to Type of Family, majority of the mothers of preterm infants come from nuclear families (91.7%), with a smaller portion from joint families (8.3%). There are (0.0%) participants from extended families or single-parent families.

According to Number of Days Hospitalized, majority of mothers of preterm infants (71.7%) have been hospitalized for 7 days, (20%) have been hospitalized for 5 days, (8.3%) have been hospitalized for 8 days or more and (0.0%) have been hospitalized for 2 days.

According to Area of Residence : majority of mothers of preterm infants reside in urban areas (96.7%), with only a small percentage in rural areas (3.3%).

According to Source of Information: majority of mothers of preterm infants rely on social media (95%) for information, while a small percentage consults medical professionals (5%).

SECTION – II

ASSESS THE PRE TEST KNOWLEDGE SCORES ON COPING WITH STRESS AND ANXIETY AMONG MOTHERS OF PRETERM INFANT

This section describe the findings related to the frequency, percentage, distribution and mean, median, standard deviation, maximum, minimum and mean percentage of pre-test knowledge score on coping with stress and anxiety among mothers of preterm infant obtained through self- structured knowledge questionnaire. The data is represented in the form of frequency & percentage distribution according to knowledge scores.

TABLE 2

Frequency & Percentage distribution of pre-test level of knowledge scores on coping with stress and anxiety among mothers of preterm infant

N=60			
Pre-test knowledge score	Range	f	%
Poor	0-10	45	75%
Average	11-20	15	25%
Good	21-30	0	0%
Maximum	Score=30		
Minimum Score=00			

The data depicts in table-2 that Frequency & Percentage distribution of pre-test level of knowledge scores on coping with stress and anxiety among mothers of preterm infant.

The majority of mothers of preterm infant i.e. 75% had poor knowledge of the total sample (45 out of 60),25% had average knowledge with 15 mothers of preterm infant falling into this category and 0% had good knowledge on coping with stress and anxiety during their pre-test.

TABLE 3**MEAN, MEDIAN, STANDARD DEVIATION, MAXIMUM, MINIMUM AND MEAN PERCENTAGE OF PRE-TEST KNOWLEDGE SCORE**

This table describe the mean median, standard deviation, maximum, minimum and mean percentage of pre-test knowledge score through self structured knowledge questionnaire on coping with stress and anxiety among mothers of preterm infant.

N=60%

Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean%
Pre-test knowledge scores	8.95	2.770	8.5	18	4	14	29.80
Maximum=30				Minimum=00			

The data depicts in table table-3 that the Mean, median, standard deviation, maximum, minimum and mean percentage of pre-test knowledge scores on coping with stress and anxiety among mothers of preterm infant. The knowledge score of mean pre-test was 8.95, indicating the typical level of knowledge before any intervention or treatment, standard Deviation score was 2.770, Median Score was 8.5, Maximum Score was 18, Minimum Score was 4, range of pre-test knowledge scores was 14 and mean percentage of pre-test knowledge scores was 29.80% .

SECTION-III**ASSESS THE POST TEST KNOWLEDGE SCORES ON COPING WITH STRESS AND ANXIETY AMONG MOTHERS OF PRETERM INFANT**

This section describe the findings related to the frequency, percentage, distribution and mean, median, standard deviation, maximum, minimum and mean percentage of post-test knowledge score on coping with stress and anxiety among mothers of preterm infant obtained through self- structured knowledge questionnaire. The data is represented in the form of frequency & percentage distribution according to knowledge scores.

TABLE 4

FREQUENCY & PERCENTAGE DISTRIBUTION OF POST-TEST LEVEL OF KNOWLEDGE SCORES ON COPING WITH STRESS AND ANXIETY AMONG MOTHERS OF PRETERM INFANT

N=60

Post-test knowledge scores	Range	f	%
POOR	0-10	0	0%
AVERAGE	11-20	55	91.7%
GOOD	21-30	5	8.3%
Maximum Score=30		Minimum Score=00	

The data depicts in the table-4 that finding related to frequency & percentage distribution of post-test level of knowledge scores on coping with stress and anxiety among mothers of preterm infant

The majority of mothers of preterm infant i.e. 91.7% (55 out of 60) were having average knowledge, 8.3% (5 out of 60) were having Good knowledge through self structured knowledge questionnaire on coping with stress and anxiety among mothers of preterm infant.

TABLE-5

Mean, median, Standard deviation, Maximum, Minimum and Mean Percentage of post-test knowledge score

N=60

Descriptive Statistics	Mean	S.D.	Median Score	Maximum	Minimum	Range	Mean%
Post-test knowledge scores	16.08	2.788	16	24	11	13	53.60
Maximum=30							
Minimum=00							

The data depicts in the table-5 that the Mean, median, standard deviation, maximum, minimum and mean percentage of post-test knowledge score after giving intervention on coping with stress and anxiety among mothers of preterm infant. The knowledge score of mean post-test was 16.08 , standard

Deviation score was 2.788, Median Score was 16, Maximum Score was 24, Minimum Score was 11, range of post-test knowledge scores was 13 and mean percentage of pre-test knowledge scores was 53.60%.

SECTION – IV

COMPARISON OF FREQUENCY & PERCENTAGE DISTRIBUTION OF PRE-TEST AND POST-TEST LEVEL OF KNOWLEDGE SCORES

This section describes the significant difference between mean of pre-test and post test knowledge scores on coping with stress and anxiety among mothers of preterm infant. In order to find out the significant difference between knowledge scores among mothers of preterm infant following hypothesis was tested.

- **H₁:** There will be a significant difference between pre test and post test knowledge scores on coping with stress and anxiety among mothers of preterm infant.

TABLE-6

COMPARISON BETWEEN FREQUENCY AND PERCENTAGE OF PRE-TEST AND POST-TEST LEVEL OF KNOWLEDGE SCORES

Criteria	Range	Pre-test f	Pre test %	Post- test f	Post- test %
POOR	0-10	45	75%	0	0%
AVERAGE	11-20	15	25%	55	91.7%
GOOD	21-30	0	0%	5	8.3%
Maximum Score=30			Minimum Score=00		

The data depicts in the table-6 the finding related to comparison between frequency and percentages pre-test and post-test level of knowledge scores on coping with stress and anxiety among mothers of preterm infant

The data depicts that in pre-test, mothers of preterm infant with poor knowledge have frequency score, 45 & percentage 75% whereas, in post test the frequency was 0 and percentage was also 0%. Among average knowledge mothers of preterm infant, the frequency and percentage was (15 out of 60) 25% in pre-test, whereas in post-test frequency and percentage was (55 out of 60) 91.7%. Among good knowledge mothers of preterm infants the frequency and percentage was (0) 0% in pre-test, whereas in post-test frequency and percentage was (5 out of 60) 8.3%.

TABLE – 7

COMPARISON OF DESCRIPTIVE STATISTICS OF PRE-TEST AND POST-TEST SCORES OF KNOWLEDGE ON COPING WITH STRESS AND ANXIETY AMONG MOTHERS OF PRETERM INFANT

N=60

Paired T Test	Mean±S.D.	Mean%	Range	Mean Diff.	Paired-t Test	P value	Table Value at 0.05
Pre-test knowledge	8.95±2.77	29.80	4-18	7.130	18.703 *Sig	<0.001	2.00
Post-test knowledge	16.08±2.788	53.60	11-24				

** Significance Level 0.05

Maximum=30

Minimum=00

p value <0.05=significant;
high significant

<0.1 Highly significant;

<0.001=Very

The data depicts in the table-7 the finding related to comparison of descriptive statistics of pre-test and post-test scores of knowledge on coping with stress and anxiety among mothers of preterm infant

The data depicts in table shows the effectiveness of parent information education and communication program on coping with stress and anxiety among mothers of preterm infant.

The mean post test knowledge score (16.08) was higher than mean pre-test knowledge score(8.95) and obtained 't' value has been found statistically highly significant(18.703) at $p < 0.001$ level of significance which shows the significant difference between pre-test and post-test knowledge scores on coping with stress and anxiety among mothers of preterm infant.

Hence, the research hypothesis H_1 was accepted.

SECTION-V

ASSOCIATION OF POST-TEST KNOWLEDGE SCORES AMONG MOTHERS OF UNDER FIVE YEAR CHILDREN WITH THEIR SELECTED SOCIO-DEMOGRAPHIC VARIABLES

This section deals with the findings related to the association of post-test knowledge scores mothers of preterm infant with their selected socio-demographic variables. The Chi-square test was used to determine the association between the knowledge scores and selected demographic variables.

H₂: There will be a significant association between post test knowledge scores on coping with stress and anxiety among mothers of preterm infant with their selected socio-demographic variables.

To determine the association of post-test knowledge scores among mothers of preterm with their selected socio-demographic variables was calculated and it is presented in table.

TABLE-8**ASSOCIATION OF POST-TEST KNOWLEDGE SCORES WITH SELECTED SOCIO-DEMOGRAPHIC VARIABLES.**

S.NO.	DEMOGRAPHIC VARIABLES	AVERAGE			Chi Test	P Value	df	Table Value	Result
		GOOD	AVERAGE	POOR					
1	Age (in years)								
	18-25 years	2	6	0					
	26-30 years	2	22	0	4.000	0.261	3	7.815	NS
	31-35 years	1	17	0					
	36-40 years	0	10	0					
2	Number of Children								
	One	4	31	0					
	Two	1	23	0	1.075	0.584	2	5.991	NS
	Three	0	1	0					
	Four	0	0	0					
3	Education Status								
	Matriculation	1	12	0					
	Graduation	3	33	0	0.015	0.992	2	5.991	NS
	Post-Graduation and above	1	10	0					
	Non formal	0	0	0					
4	Occupation								
	Self- employed	0	3	0					
	Govt. employee	0	3	0	0.727	0.867	3	7.815	NS
	Private Employee	2	16	0					
	House wife	3	33	0					

5	Religion								
	Hindu	5	51	0					
	Muslim	0	0	0	0.390	0.533	1	3.841	NS
	Christian	0	0	0					
	Sikh	0	4	0					
6	Monthly income								
	<5000	0	0	0					
	5001-20,000	0	0	0	0.218	0.640	1	3.841	NS
	20,001- 40,000	2	28	0					
	>40,000	3	27	0					
7	Type of family								
	Joint	0	5	0					
	Nuclear	5	50	0	0.496	0.481	1	3.841	NS
	Extended Family	0	0	0					
	Single parent	0	0	0					
8	Number of day Hospitalized (less than)								
	2 days	0	0	0					
	5 days	2	10	0	1.649	0.438	2	5.991	NS
	7 days	3	40	0					
	8 days and above	0	5	0					
9	Area of residence								
	Rural	1	1	0	4.702*	0.030	1	3.841	Significant
	Urban	4	54	0					
10	Source of Information								
	Peer group	0	0	0					
	Medical professional	0	3	0	0.287	0.592	1	3.841	NS
	Relatives	0	0	0					
	Social media	5	52	0					

*S=Significant

NS=Not Significant

The data depicts in the table-8 that association between post-test knowledge scores with their selected socio-demographic variables on coping with stress and anxiety among mothers of preterm infant. It was observed that there is no significant association of post test knowledge scores with their selected socio-demographic variable i.e. (Age (in years), Number of Children, Education Status, Occupation, Religion, Monthly family income (In rupees), Type of family, Number of day Hospitalized(less than), Area of residence, Source of knowledge).

According to all socio-demographic variables, obtained Chi-square value was less than the table value so there is no association between post-test knowledge scores among mothers of preterm infant at 0.001 and 0.05 level of significance. Hence, research hypothesis H₂ was rejected.

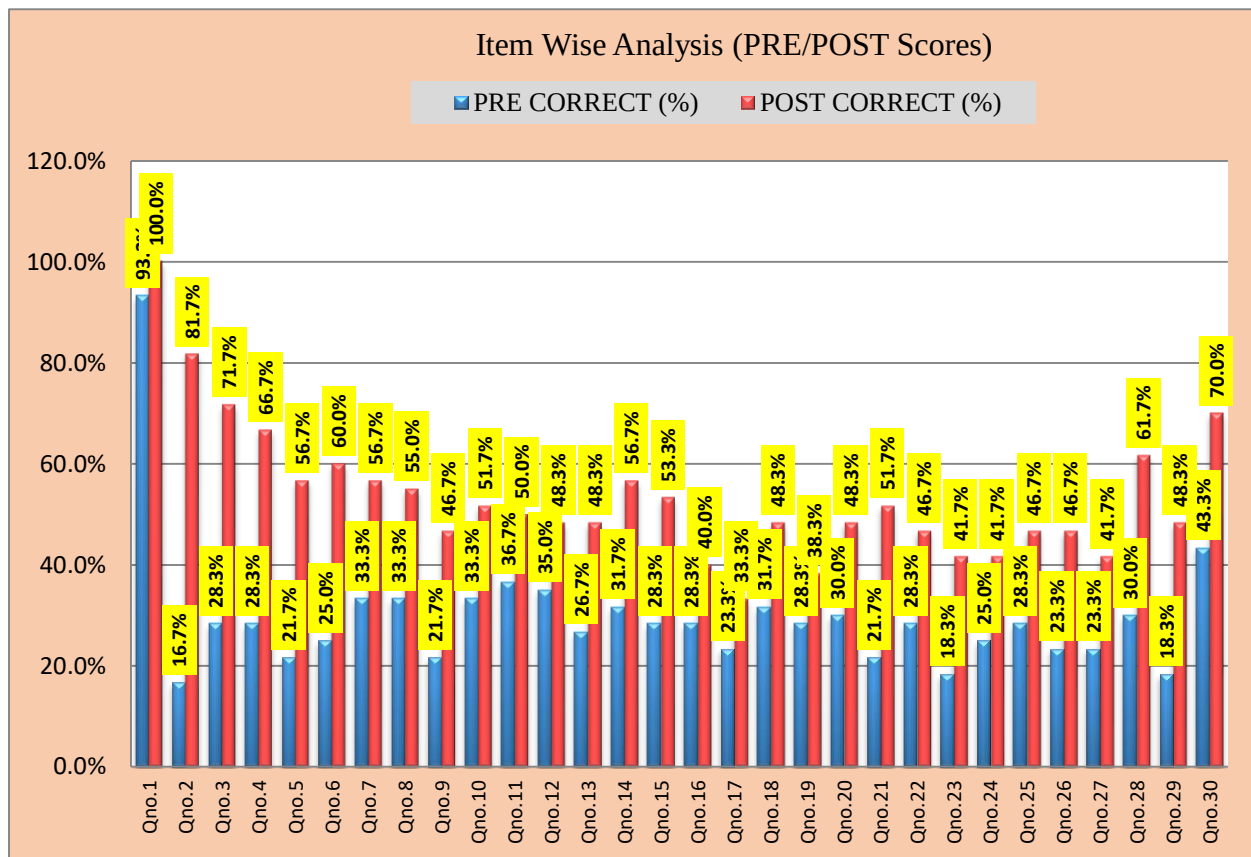


Figure no.20: Bar diagram representing Item wise analysis representing comparison of pre-test and post-test level of knowledge.

CONCLUSION

The result from the study reveals the implication of information, education and communication program on coping with stress and anxiety among mothers of preterm infant was adequate. As mother of Preterm infant were easily attracted and shows interest toward Information, education and communication program. Chi-square value had no significant association between knowledge score on coping with stress and anxiety among mothers of preterm infant with their selected social demographic variables so it is concluded that selected socio- demographic variable had no effect on knowledge on mother of preterm infant because information, education and communication program was found to be effective in improving the knowledge more effective in learning of mother of preterm infant and it is easy to deliver also grab viewer attention and increase learner engagement.

We hypothesized that providing education program with the use of information, education and communication program may improve the knowledge on coping with stress and anxiety among mother of preterm infant. This hypothesis was supported by the finding of current study as score of knowledge improved significantly after information, education and communication program.

Hence it was concluded that the use of information, education and communication program is an effective strategy for improving the knowledge on coping with stress and anxiety among mother of preterm infant.

PROCEDURE OF DATA COLLECTION

Burns and Grove states that data collection is the identification of subject and precise, systematic gathering of information (data) relevant to research purpose or the specific objective, question, or hypothesis of the study.

After obtaining formal administrative approval from the City super-specialty hospital Kangra, Dr. Deepanwita's hospital Palampur, Shree Balaji hospital Kangra, Nirdosh Children hospital Palampur, final study was conducted in a month of 16/04/2024 to 17/05/2024. The aim of the study was to evaluate the effectiveness of parent information education and communication program on coping with stress and anxiety among mothers of preterm infant in selected hospital of district Kangra, (H.P). After obtaining permission from concerned authorities, the investigators develop rapport and take consent from the mothers of preterm infant. Total 60 samples were selected by non-probability convenient sampling technique. After getting constant from the sample who met the inclusion criteria.

1. **Pre-test:** On 1st day pre-test was administered to the mothers of preterm infant in the form of self structured knowledge questionnaires.
2. Provided information education and communication program to the study sample
3. **Post-test:** Post-test was conducted on the 5th day of pre-test with the same set of self structured knowledge questionnaire.

The data were compiled and analysis was done by using descriptive and inferential statistics.

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