



# “THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING DIAPER CARE AMONG MOTHERS OF NEONATES IN SELECTED HOSPITAL AT BANGALORE”.

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## **ABSTRACT**

Disposable baby diapers are the most widely used type of diaper, occupying around 95% of the world market. This translates to an annual consumption of over 21 billion units in the European Union alone. Almost 700 kit of raw materials are consumed annually to manufacture disposable baby diapers, excluding packaging. The volume of diaper waste (dry weight) generated every year in the EU is equivalent to the annual municipal waste produced by over 1.4 million people. Likewise, the manufacture, distribution, use and waste management of diapers emit 2.7 Mt of greenhouse gases (GHG) per year. Pre-experimental one group pre-test and post-test design was used to assess the effectiveness of planned teaching programme on knowledge regarding diaper care among mothers of neonates in selected hospitals at Bangalore. In the view of the nature of the problem and to accomplish the objective of the study, the structured teaching programme was prepared focusing on diaper care from the usage to the disposal among mothers of neonates, the structured questionnaire was prepared to assess the effectiveness of structured teaching programme. Reliability of the tool was computed by using split half technique employing spearman browns prophecy formula, and validity was ensured in consultation with guides and expert's in the field of nursing. The study was carried out at Jayanagar general hospital 4<sup>th</sup> block, Jayanagar, Bangalore. Structured questionnaire was used to collect the needed data, collected data was analysed using descriptive and inferential statistics. The results shown in pre-test out of 30 respondents the majority of the mothers of neonates 26 (86.67%) had moderate level of knowledge, about 4 (13.33%) of the samples had inadequate knowledge, and about 0(0%) had adequate knowledge. In post-test out of 30 respondents 28(94%) had adequate level of knowledge, about 2 (6%) of the samples had moderate level of knowledge, and 0(0%) had inadequate knowledge. The post-test mean value 28.40 was higher than the pre-test value 12.97. The mean difference between pre-test and post-test was 15.53 and the obtained paired t value is 37.499(p<0.001) was highly significant. The mean value of post-test was significantly higher than the mean value of pre-test. It is inferred that mothers of neonates had significantly gained in post-test knowledge of diaper care after structured teaching programme. The structured teaching programme was effective.

**Key words;** Effectiveness; Structured Teaching Programme; Diaper care;

## INTRODUCTION

*“Children are the hands by which we take hold of heaven”-Henry ward Beecher*

“A neonate refers to a baby from birth to 4 weeks. Another word for "neonate" is "newborn. “Infant" is a more formal term for a baby. Diaper or a nappy is a type of underwear that allows the wearer to urinate or defecate without the use of a toilet, by absorbing or containing waste products to prevent soiling of outer clothing or the external environment. Diapers are primarily worn by infants, toddlers who are not yet potty trained, and by children who experience bedwetting. Diapers are of two types that are reusable and disposable Materials. Reusable are cloth diapers and can be made from natural fibers, synthetic materials, or a combination of both. Cloth diapers are composed of layers of fabric such as cotton, hemp, bamboo, microfiber, or even plastic fibers such as pla or Pu, and can be washed and reused multiple times.

## NEED FOR THE STUDY

A diaper rash is a common infant malady. The cohort study was done among 31 healthy term newborns over the first 28 days of life to document the earliest stages of rash. The diaper area was evaluated using a standardized diaper rash grading scale. The anal, buttock, genital, intertriginous, waistband and leg areas were assessed separately. At birth, the average grade was 0.1 and none of the infants had the rash. 19% percent had dryness and slight redness. By day 7, 71% of infants had features of skin compromise and a grade of 0.6. During postnatal weeks 2 and 3, the frequency and overall grade increased. From days 21 and 28 overall scores were the same. The perineal area had the highest regional rash grade. Gender differences were present for the genital area only. The epidermal barrier breakdown is uncommon at birth, irritated skin in the diaper area develop progressively over the first postnatal month. So the mechanism of epidermal barrier breakdown should be understood by parents in diaper care. One of the challenging issues in country's agenda is the management of solid waste. Diapers are one of the important products leading to this waste management issue. Landfills of any country are mainly clogged with disposable products, such as diapers. There is a longstanding debate among environmentalists to conclude disposable and reusable diapers in terms of which one poses more threat to the environment. The above issues create the curiosity and necessity for the investigator to research the knowledge through a structured teaching program on diaper care to the mothers advising the proper sop necessity in diaper care from the usage to disposal which will prevent the baby and the environment from the potential hazards.

## OBJECTIVES OF THE STUDY

1. To assess the pre-test level of knowledge regarding diaper care among mothers of neonates before a structured teaching program.
2. To assess the post-test level of knowledge regarding diaper care among mothers of neonates after a structured teaching program.
3. To determine the effectiveness of structured teaching program regarding diaper care among mothers of neonates.
4. To determine the association between the pre-test levels of knowledge regarding diaper care with selected demographic variables of mothers of neonates.

## HYPOTHESES

1. **H1**-There is a significant improvement in the level of knowledge regarding diaper care among mothers of neonates after a structured teaching program than before a structured teaching program at the level of  $p < 0.05$ .
2. **H2**-There is a significant association between the level of pre-test knowledge regarding diaper care and selected demographic variables of the mother of neonates at the level of  $p < 0.05$ .

## METHODOLOGY

**RESEARCH APPROACH:** Quantitative research approach.

**RESEACH DESIGN:** Pre- experimental One Group Pre- and Post- test design.

### VARIABLES

- **INDEPENDENT VARIABLE:** Structured teachingng programme regarding diaper care.
- **DEPENDENT VARIABLE:** Knowledge regarding diaper care.
- **DEMOGRAPHIC VARIABLE:** Age, type of family, area of residence, education of mother, religion, do you have previous knowledge regarding diaper, source of information. Occupation, socioeconomic status, gravid, parity, family income.
- **SETTING OF THE STUDY:** Jayanagar general hospital Bangalore.
- **POPULATION:** All the hospitalized mothers of neonates.
- **SAMPLE:** the mothers of neonates who underwent LSCS in Jayanagar general hospital LSCS ward, and who fulfill the inclusion criteria.
- **SAMPLE SIZE:** The 30 samples.
- **SAMPLING TECHNIQUE:** convenience sampling technique,
- **Method of data collection:** Self-administered questionnaire
- **Tool for data collection:** Structured administered questionnaire
- **Duration of the study:**4 weeks only

### Criteria for Sample selection:

#### INCLUSION CRITERIA

- Mothers who are willing to participate in this study.
- Mothers who are present during the time of data collection.
- Mothers of neonates can, read and understand either English or Kannada
- Mothers who admitted in postnatal ward

#### 2. EXCLUSION CRITERIA

- Mothers who are Health care professionals
- Those who are already studied and practiced diaper care.
- Mothers of neonates with severe illness

### TOOL OF DATA COLLECTION

#### 1.Demographic data

2.Structured knowledge questionnaire the items in the tools were organized under domains such as meaning, types usage of diaper, composition of diaper and diaper rashes contains 1- 15 (15 items) Diaper care 16-23(8 items) Assessment, diagnoses, treatment, and prevention of diaper rash 24-30 (7 items).

Maximum score: 30

Minimum score: 0

## DATA COLLECTION PROCEDURE

- The study was conducted in Jayanagar General Hospital, Bangalore. Pre-test was done by administering the questionnaire to the samples, the Sstructured teaching programme was given on the same day to the group of mothers of neonates.
- After an interval of seven days, post-test was conducted using the same tool in the respective areas. The participants were assisted by clarifying the doubts and concerns.

## RESULT

### OVER ALL PRE-TEST AND POST-TEST MEAN PERCENTAGE ON DIAPER CARE

#### Assessment of Pre and posttest of mother's knowledge

n = 30

Sl. No	Mothers knowledge	Mean	Standard deviation	Mean difference	Paired 't' value	P – value
1. 2.	Pre test Post test	12.97 28.40	1.99 1.33	15.53	t =37.499**	0.001

\*\* Highly significant  $P \leq 0.001$

### ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND PRE-TEST KNOWLEDGE LEVEL ON DIAPER CARE

Sl.No	Demographic Variables	Outcome Less than median		Outcome More than median		Inference
		No	%	No	%	
1	<b>Mother age</b>					<b>P=1.000</b> <b>N.S</b> <b>Df=4</b>
	21-24 years	0	0.0	3	25.0	
	25-28 years	6	33.3	1	8.3	
	29-32 years	5	27.8	4	33.3	
	33-35years	5	27.8	4	33.3	
	36 years and above	2	11.1	0	0.0	
2	<b>Mother education</b>					<b>P=0.045*</b> <b>Df=3</b>
	Illiterate	0	0.0	4	33.3	
	Up to 12 <sup>th</sup> standard	3	16.7	3	25.0	
	Graduate	8	44.4	2	16.7	
	Post graduate	7	38.9	3	25.0	
3	<b>Mother occupation</b>					<b>χ<sup>2</sup>=0.833;</b> <b>P=0.361</b> <b>N.S</b> <b>Df=1</b>
	Unemployed	6	33.3	6	50.0	
	Employed	12	66.7	6	50.0	
4	<b>Income in rupees</b>					<b>P=1.000</b> <b>N.S</b> <b>Df=2</b>
	≤5000	7	38.9	4	33.3	
	5001-10000	9	50.0	5	41.7	
	>10000	2	11.1	3	25.0	
5	<b>Type of family</b>					<b>χ<sup>2</sup>=0.833;</b> <b>P=0.361</b> <b>N.S</b> <b>Df=1</b>
	Nuclear	12	66.7	6	50.0	
	Joint	6	33.3	6	50.0	
6	<b>Income in rupees</b>					<b>P=1.000</b> <b>N.S</b> <b>Df=2</b>
	≤5000	7	38.9	4	33.3	
	5001-10000	9	50.0	5	41.7	
	>10000	2	11.1	3	25.0	
7	<b>Source of information</b>					<b>P=0.045*</b> <b>Df=3</b>
	Print media	0	0.0	4	33.3	
	Electronic media	3	16.7	3	25.0	
	Family & neighbours	8	44.4	2	16.7	
	Health professionals	7	38.9	3	25.0	

NS Not significant;

\* Moderately significant 0.01-P ≤ 0.05

1. It was found that there is significant improvement in the level of knowledge of mothers of neonates regarding diaper care after learning at the level of  $p < 0.05$ .
2. It was found that there is significant association between pre-test knowledge of women regarding diaper care with selected socio demographic variables, education and source of information at the significant level of  $p < 0.05$ .

## MAJOR FINDINGS

- The level of pre-test knowledge score regarding diaper care among mothers of neonates the majority of the mothers of neonates (86.67%) had moderate level of knowledge, about (13.33%) of the samples had inadequate knowledge, and none had adequate knowledge
- In post-test knowledge on diaper care among mothers of neonates, the majority of the participants 28 (94%) had adequate knowledge, 2 (6%) had moderate knowledge and there were no respondents with inadequate knowledge regarding diaper care
- The mean percentage of post-test knowledge score (28.40) was apparently higher than its mean percentage of pre-test knowledge score (12.97), The mean enhancement between pre-test and post-test knowledge score was 15.53. suggesting that structured teaching programme was effective in increasing the knowledge on diaper care among mothers of neonates

## NURSING IMPLICATIONS

- **Nursing Education:** The study had showed that there is a need to improve the knowledge regarding diaper care.in-service education programme, workshop, seminar; conference should be conducted on diaper care for better preparing to take up new challenges in field of nursing.
- **Nursing Practice:** The finding of the study indicate that health care member should be aware of the need of observing, supervising, teaching the skilled practice of diapering and disposal of diaper to prevent haphazard to neonates and to the environment.
- **Nursing administration:** The nursing administration should take part in planning the curriculum for continuing education., The nurse administrator needs to plan, organize and conducts in-service educational program by considering cost effectiveness and carry out successful education program.
- **Nursing Research:** The study finding may motivate others researches to conduct researches and implement the finding into their own practices., t is the responsibility of the health professionals to provide scientifically listed material of programme to improve the knowledge regarding diaper care. This study also brings about the fact that more studies need to be done at different setting which is culturally relevant with better teaching strategies. This study can be a baseline qualitative study.

## CONCLUSION

- As per the study, structured teaching programme can increase the knowledge of mothers of neonates regarding thediaper care.

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