



ORIGINAL RESEARCH PAPER

Nursing

EFFECTIVENESS OF PLANNED TEACHING REGARDING PREVENTION OF DIAPER DERMATITIS AMONG THE MOTHERS OF INFANTS

KEY WORDS: effectiveness, knowledge, diaper dermatitis

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ABSTRACT

Background: Almost every mother and child has had some experience with diaper rash at some time. To many first-time mothers, a case of diaper rash may shake their confidence in their ability to be an adequate mother and to care for their infant. Though, diaper rash is the most prevalent of rashes in infancy with a majority of children expected to suffer at least one episode by the time they are toilet trained.

Objectives: 1)To assess the knowledge regarding prevention of diaper dermatitis among mothers of infant.2)To assess the effectiveness of planned teaching on knowledge regarding prevention of diaper dermatitis among mothers of infant. 3)To associate knowledge score with selected demographic variable.

Methods and Materials: This study was based on one group pre test post test design with 100 samples (100 mothers), selected from rural community by using non probability convenience sampling technique.

Results: In this study non probability convenience sample of 100 subjects was drawn from the study population, who were taken from selected rural area of wardha district. In the assessment of knowledge of mothers after giving intervention findings shows that 75(75%) had "Excellent Knowledge", 25(25%) had "Good Knowledge" and nobody had average and poor knowledge. There was not significant association of knowledge score of mothers with selected demographic variables such as age, education, type of family, number of children, occupation of mother, income of family, source of information and religion of mother.

Introduction

Diaper dermatitis also known as diaper rash, is one of the most common skin disorders in infants and toddlers. It is commonly caused by irritation in the diaper area. The rash is usually evident in the abdomen, genitalia and inside the skin folds of the thighs and buttocks and affects infants between the ages of 4 and 15 months. The severity can be mild to extreme, in some cases containing open sores or a secondary infection. Inflammation occurs as a result of prolonged exposure to irritants such as urine, stool and chemicals.¹

There is an increased incidence of diaper rash in infants who have suffered from diarrhea in the previous 48 hours, which may be because fecal enzymes such as lipase and protease are more active in feces which have passed rapidly through the gastrointestinal tract.² Baby with sensitive skin are also more prone to diaper rash. Another type of diaper rash is tide mark dermatitis. Tight diapers or binding that rub against the baby's skin can cause painful chafing.³

The causes of diaper rash are varied. Some of the causes include yeast infection, irritation from paper diapers, generally sensitive skin, reaction to the soap used to wash the diapers, digestive disturbance from some food that the nursing mother has eaten and a reaction to antibiotic medications. The symptoms are a red rash, sometimes mild, sometimes a bright red, almost scalded look to the skin around the genitals and bottom of the baby.⁴

Diaper rashes decrease to the extent that diapered skin can have an environment closer to that of undiapered skin. However, the need to wear diapers must also be considered. Disposable diapers are associated with fewer cases of yeast diaper rash than cloth diapers. Infants who wear breathable disposable diapers developed significantly fewer diaper rashes of any type than infants who wore standard, non-breathable disposable diapers in a series of clinical trials.⁵

HYPOTHESIS

- H₁- The mean post-test knowledge scores of the mothers of infant regarding prevention of diaper dermatitis will be significantly higher than the mean pre-test knowledge scores.
- H₂- There will be significant association between the mean post-test knowledge scores and the selected socio-demographic variable.

Methodology

In this study one group pre test and post test research design was used. The study was conducted in the selected rural area of Wardha district. The population of the study was all the mothers of

infants of rural area of Wardha District. Samples were mothers those were fulfilling the inclusion and exclusion criteria and the sample size was 100 mothers. The sampling technique used was non-probability convenience sampling technique. The inclusion criteria of the study was mothers who are willing to participate, participants who are able to understand & read Marathi language, participants who are available at the time of data collection, participants between the age of 21 to 40 years. Mothers those are using cloth diaper. The exclusion criteria was those who are not willing to participate in the study.

Results

Table1: Percentage wise distribution of mothers of infant according to their demographic characteristics.

n=100

Demographic Variables	No. of mothers of infant	Percentage (%)
Age(in years)		
21-25 years	30	30
26-30 years	51	51
31-35 years	17	17
36-40 years	2	2
No of children		
1	62	62
2	38	38
Type of family		
Nuclear	49	49
Joint	51	51
Religion		
Hindu	57	57
Muslim	13	13
Buddhist	24	24
Christian	06	06
Educational Status		
Primary	02	02
Secondary	31	31
Higher Secondary	55	55
Graduate and above	12	12
Occupation employed		
Home maker	85	85
Employed	15	15
Monthly income		
<5000	03	03
5001-10000	66	66

10001-15000	19	19
above 15000	12	12
Previous experience of caring child of diaper dermatitis		
Yes	12	12
No	88	88
Any information regarding prevention of diaper dermatitis		
Yes	45	45
No	55	55
Source of information		
Family and relatives	25	25
Health professional	12	12
Media	8	8
No	55	55

In this study majority of the subjects i:e 51% in the age group of 26-30 years, 30% in the age range of 21-30 years, 17% of them were belonging to the age of 31-35 years and only 2% were belonging to the age group of 36-40 years respectively.

According to their number of children shows that 62% were single child and 38% mother have 2 children..

According to their type of family status shows that 49% were belongs to nuclear family and 51 % belongs to joint family.

According to their religion shows that 577% were hindu, 24% were buddhist, 13 % were muslim and 6% were Christian.

According to their educational status shows that 55% upto higher secondary, 31% upto secondary, 12% were graduation and above26% were educated upto primary.

According to their occupation 85% were home maker and 15% employed.

According to their monthly income of the family 66% have monthly income 5001-10000, 19% had 10001 – 15000, 12% had above 15000 and 3% had below 5000 monthly income of the family.

According to any information regarding previous diaper dermatitis shows that 45% had previous information and 55% no any previous information.

According to their source of information shows that 52% had no source of information, 25% had from family and relatives, 12% had from health profession and 8% had from media.

Table 2: Post test assessment of knowledge of mothers of infants regarding prevention of diaper dermatitis

Level of knowledge score	Score Range	Percentage score	Post Test Knowledge Score	
			Frequency	Percentage
Poor	1-5	0-25%	0	0
Average	6-10	26-50%	0	0
Good	11-15	51-75%	25	25
Excellent	16-20	76-100%	75	75
Mean ± SD			16.10±1.43	
Mean Percentage Score			80.5%	
Range			11 – 19	

The above table no 2 shows that the frequency and percentage wise distribution of mother of infants according to post test level of knowledge regarding prevention of diaper dermatitis. The levels of knowledge were seen into 4 categories, poor, average, good and excellent. 25% of the mother had good and 75% had excellent level of knowledge score. Mean knowledge score was 16.10 ± 1.43 with a mean percentage score of 80.5%.

Table 3:Significance of difference between knowledge scores in pre and post test of mothers in relation to prevention of diaper dermatitis.

					n=100
Overall	Mean	SD	Mean Percentage	t-value	p-value
Pre Test	7.27	1.56	36.35%	37.95	0.000*HS
Post Test	16.10	1.43	80.5%		p<0.05

Pretest and post test knowledge scores of mothers regarding prevention of diaper dermatitis. Mean, standard deviation and mean percentage score values are compared and student’s paired t test is applied at 5% level of significance. The statistical Student’s paired t test implies that the difference in the pre test and post test knowledge score found to be 37.95 statistically significant at 0.05% level. Hence it is statistically interpreted that effectiveness of planned teaching on knowledge regarding prevention of diaper dermatitis was effective. Thus H₁ is accepted.

Association of knowledge score of mothers in relation to demographic variable

There was no significant association of knowledge score of mothers with selected demographic variables such as age, education, number of children, type of family, religion, income of family per month, occupation, source of information.

Discussion

The present study conducted among mother of infants by using self structured questionnaire to assess the effectiveness of planned teaching on knowledge regarding prevention of diaper dermatitis. In pre test knowledge score 09% of the mothers had poor, 85% had average and 06% had good level of knowledge score. After giving planned teaching post test knowledge score was increased 25% of the mothers had good and 75% had excellent level of knowledge score.

A pre experimental study was conducted among the mothers of infants to determine the effectiveness of awareness programme on prevention and management of diaper dermatitis. The study was conducted in Kasturba Hospital, Manipal, Karnataka, India, among 42 mothers of children of age 0 to 1 year. The samples were selected through purposive sampling. Initially the level of knowledge, attitude and practice on prevention and management of diaper dermatitis were assessed by administering a structured questionnaire to the mothers. Awareness programmes was given on the second day and on 8 day a post test was carried out and a significant improvement in knowledge(t=13.813,p=0.02), attitude(t=8.34,p=0.01)and practice(t=11.32,p=0.01)were identified. The study findings showed that the awareness programme was effective in increasing the knowledge, attitude and practice on prevention and management of diaper dermatitis among the mothers of infants.⁶

A cross sectional study was conducted on knowledge and home management of nappy rash on mother port Hicourt, Nigeria. A structured questionnaire used to collect the information on biodata, awareness information, response and practices. Total 141 mothers participated in this study A total of 141 mothers participated in the study. Seventy-five (53%) of them had post secondary education. Disposable diapers only were used by 45% of respondents, 10% used cloth napkin only. Level of education significantly affected type of diaper used (P=0.002). Baby’s diaper was changed 3 times during the day and once at night by 41%. Most mothers (80%) regularly applied Vaseline on baby’s bottom, 14% applied powder. In the preceding 6 months, 34% of babies had nappy rash with the number of episodes varying from 1 to 5. Most respondents (73%) applied anti-fungal cream to the rash, only 10% exposed the bottom.⁷

In the present study there is no significant association of demographic variables with post test knowledge score such as age, education, number of children, type of family, income of family, occupation, and religion and source of information. Hence the hypothesis H₂ is not accepted.

RECOMMENDATIONS:

1. A similar study can be replicated on large scale to generalize the findings.
2. A similar study can be conducted to find the attitude of

mothers about the Prevention of diaper dermatitis.

3. A descriptive study can be conducted among the staff nurses.
4. A similar study can be replicated with experimental and control group.
5. A comparative study has to be conducted to evaluate two different teaching methods.

CONCLUSION

The main aim of the study was effectiveness of planned teaching on knowledge regarding prevention of diaper dermatitis among mothers of infants. The conclusion drawn on the basis of findings of the study that the administration of planned teaching helped the mothers to understand regarding prevention of diaper dermatitis. There was substantial improvement in the knowledge scores after the administration of the planned teaching.

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