The Effectiveness of Teaching Programme Regarding Prevention and Management Napkin Dermatitis in Allahabad

Jemy Elizabeth Joseph¹, Shiju Mathew²

¹ Dept. of Emergency Pediatrics, Ministry of Health, King Saud Medical City
² Dept. of Biotechnology, Marthoma College of Science and Technology
Chadayamangalam P.O., Ayur- 691534 India.

ABSTRACT

The neonates are unique in several ways in comparison with older children and adults which render them highly susceptible to severe dermatological disorders. Infants are particularly at risk for developing diaper dermatitis and its potential consequences. It is one of the most common skin problems in infants and children, affecting between 7 and 35 per cent of infants at some point. The present study was conducted to assess the effectiveness of structured teaching programme on prevention and management of napkin dermatitis in infants’ on mothers residing at Rural Naini, Allahabad. The conceptual framework set up for the study is Conceptual framework based on modified general system theory. The model which has four phases i.e. input, throughput, output and feedback, and context provide comprehension, systematic and continuous ongoing framework for program evaluation. In this study various literature was reviewed which includes, the research design selected for the study was pre experimental research design of one group pre-test post-test design. The independent variable was structured teaching programme and dependent variables were level of knowledge of mothers in pre-test and post-test.

Keyword: Infants, Knowledge, Management and Prevention, Mother, Napkin Dermatitis

1. INTRODUCTION

Diapers have been used for care of babies since decades to prevent soiling and for social convenience. The use of diaper poses a risk of developing diaper dermatitis. These newer types of diapers reduce the incidence of diaper dermatitis (Akin and Spraker, 2001). Diaper dermatitis is one of the most common skin disorders of infants and children. Diaper dermatitis is a general term used to describe any inflammatory skin eruption that develops in the diaper-covered region. It is synonymous with diaper rash, napkin dermatitis, and nappy rash. Diaper dermatitis usually affects infants and toddlers, although it can affect any individual who wears a diaper.

The reported incidence and age of onset vary worldwide, related to differences in diaper use, hygiene, and child-rearing practices in different countries (Singalavanija and Frieden, 1995) Diagnosis of diaper dermatitis is based largely on the physical examination. The pertinent physical examination focuses on the skin in the diaper area. Findings vary depending on which subset of diaper rash is most prominent (Berg, 1998) A study was conducted in Department of Dermatology, Wake Forest University School of Medicine, USA regarding Characterization of diaper dermatitis in the United States. In the United States, diaper dermatitis represents 10 to 20 percent of all skin disorders evaluated by the general pediatrician. According to

Copyright © 2013 Institute of Advanced Engineering and Science. All rights reserved.

Corresponding Author:
Jemy Elizabeth Joseph,
Dept. of Emergency Pediatrics, Ministry of Health, King Saud Medical City
P.O. Box No. 7855, Riyadh 111117,
Kingdom of Saudi Arabia
Tel.: +966-534180559
Email: jemyshiju@gmail.com
the 1990-1997 National Ambulatory Medical Care Survey, there were 8.2 million pediatric visits for diaper dermatitis, and the calculated risk of developing diaper dermatitis throughout childhood was one in four. In infants, the estimated prevalence of diaper dermatitis ranges from 7 to 35 percent. Diaper dermatitis can develop as early as one week of age, but the peak incidence occurs between 9 and 12 months (Ward and Fleischer, 2000). An evaluative research conducted by The Himalaya Drug Company Bangalore, to evaluate the efficacy and safety of "Diaper Rash Cream" in the management of infantile irritant diaper dermatitis. There was a significant reduction of itching in 10 babies, from 3th day onwards, and all the infants were relieved of itching from the 5th day. The positive benefits observed in this study might be due to the synergistic action of the active ingredients of the formulation viz. anti-inflammatory activities, antibacterial activities, wound healing activities, and antioxidant activities. Therefore it can be concluded that Diaper rash cream is effective and safe in management of diaper dermatitis (Chatterjee and Pramanick, 2009).

2. MATERIALS AND METHODS

2.1. Conceptual framework (Bertalanffy and J.W Kenny):

Conceptual framework provides a certain frame of reference for clinical practice, research and education. Conceptual framework is the conceptual underpinning of the study. Conceptual frameworks (theoretical frameworks) are a type of intermediate theory that has the potential to connect to all aspects of inquiry (e.g., problem definition, purpose, literature review, methodology, data collection and analysis). Conceptual frameworks act like maps that give coherence to empirical inquiry. It is a set of coherent ideas or concepts organized in a manner that makes them easy to communicate to others. A model is used to denote symbolic representation of concepts (Patrizi and Neri, 1996).

The present study is intended to assess the effectiveness of Strutured teaching programme in terms of improving the knowledge of mothers regarding prevention and management of napkin dermatitis in infants. The conceptual framework for this study was based on Ludwig Von Bertalanffy in 1968. General system theory is used with certain modification and was presented in the form of figure (Figure 1.1). According to general system theory, a system is a set of interrelated components and units interacting with each other in a boundary. The individual is capable of taking energy and information from the environment and revealing them to the environment. Because of this exchange, individual is an open system. System model consist of three phases: input, throughput, output and feed-back.

2.2. Research Approach

An evaluative research approach using Pre-experimental design pre-test (O1) and post-test (O2) was adopted. Evaluative research approach deals with the question of how well the program is meeting the objectives. The primary objective of the evaluative research approach is to determine the extent to which a given program or procedure is effective. Hence the evaluative research approach was considered most appropriate. The study is aimed at assessing the effectiveness of structured teaching programme on prevention and management of napkin dermatitis in infants in terms of gain in knowledge score of mothers.

2.3. Research Design

The research design selected for the study was pre-experimental in nature i.e., one group pre-test post-test design. This study was intended to find out the gain in knowledge by the mothers after administering structured teaching programme, who was subjected for the study. Thus experimental group is observed twice. The effect of treatment would be equal to the level of phenomenon after the treatment minus the level of the phenomena before treatment.

In the study a pretest was administered by the means of a structured knowledge questionnaire. The structured teaching programme on prevention and management of napkin dermatitis in Infants was planned and implemented for 30 minutes with the help of chart as AV aids. After seven days a post test was conducted by using a same structured knowledge questionnaire. The collected data were analyzed by using descriptive and inferential statistics.

2.4. Setting of the Study

The selected Rural Naini in Allahabad to conduct the study.

2.5. Target Population

The target population for the present study was mothers who have child below one year of age residing at Rural Naini, Allahabad.
2.6. Sample and Sampling Technique

The sample of present study comprised of 60 mothers with child below one year of age and residing at Rural Naini, Allahabad. Sampling technique adopted for selection of sample is non-probability convenience sampling.
2.7. Selection and Development of Instrument/Tool

Based up on the objectives of present study, a structured knowledge questionnaire was prepared, in order to assess the knowledge of mothers regarding the prevention and management of napkin dermatitis in infants. Structured knowledge questionnaire was developed to assess the knowledge of mothers regarding prevention and management of napkin dermatitis in infants.

2.8. Data collection technique and Instrument/Tool

The data was collected by using a structured knowledge questionnaire. The tool prepared of this study had two sections:

Section A: It was developed for the purpose of assessing the sample characteristics. The items included were Age, education, occupation, per capita monthly income of the family, Type of family, Source of information, previous history of napkin dermatitis in their family.

Section B: A structured knowledge questionnaire on prevention and management of napkin dermatitis is based on review of research and non-research literature and opinion of experts was developed. The knowledge questionnaire contained 30 questions. The areas covered were:
The Effectiveness of Teaching Programme Regarding Prevention and Management of Napkin Dermatitis in Infants: A Study Among Mothers from Rural Naini, Allahabad

Jemy Elizabeth Joseph

General awareness about napkin dermatitis in infants: Consists of 7 items
- Causes of napkin dermatitis: Consists of 3 items
- Clinical manifestations of napkin dermatitis: Consists of 3 items
- Prevention of napkin dermatitis: Consists of 8 items
- Management of napkin dermatitis: Consists of 9 items

Scores: There was 30 items. Each item has four options in which only one was the correct response and all other three were distracters. Each correct response is awarded “one” mark and for incorrect response “zero” mark. Maximum score for questionnaire was 30 and minimum “zero”.

Grade Percentage: Inadequate (<50%); Moderate (50-75%); Adequate (>75%)

Reliability: Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to measure. Reliability of the tool was assessed by collecting data from 6 mothers residing in Rural Naini, Allahabad. Split half method with Karl Pearson’s formula was used to test the reliability of the tool.

\[ r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}} \]

The reliability of the tool was 0.90. It was statistically significant and thus reliable.

3. DATA COLLECTION PROCEDURE

3.1. Pre test
The investigator collected data by structured knowledge questionnaire from each respondent, which require knowledge regarding the Prevention and management of napkin dermatitis in infants.

3.2. Implementation of structured teaching programme
After pretest, structured teaching programme was administered regarding the Prevention and management of napkin dermatitis in infants to 60 mothers in the experimental group.

3.3. Post test
After the 7th day of implementation of structured teaching programme posttest was carried out by the investigator by using the same structured knowledge questionnaire.

4. DATA ANALYSIS
The analysis of the data requires a number of closely related operations such as establishment of categories, the application of these categories to raw data through coding, tabulation and then drawing statistical inferences. The data obtained was analyzed in terms of achieving the objectives of the study using descriptive and inferential statistics.

4.1. Statistical Analysis of the Data
- Organization of data in master sheet.
- Frequencies and percentages to be used for analysis of demographic characteristics.
- Calculations of mean, standard deviation of pretest and posttest scores of mothers regarding prevention and management of napkin dermatitis in infants.
- Application of paired t-test to ascertain whether there is significant difference in the mean knowledge score of pretest and posttest values.
- Application of chi-square test to find out the association between demographic variables with posttest scores of mothers regarding prevention and management of napkin dermatitis in infants with selected demographic variables.

5. RESULTS
The data was collected from 60 mothers. Data was collected from the experimental group before and after the administration of structured teaching programme. The collected information was organized,
tabulated, analysed and interpreted by using descriptive and inferential statistics. The collected information was organized and presented under the following three sections:

**Section I:** Assessment of level of knowledge of mothers regarding prevention and management of Napkin dermatitis in infants before and after administration of structured teaching programme.

**Section II:** Comparison of pre-test and post-test mother’s knowledge scores regarding prevention and management of napkin dermatitis in infants.

**Section III:** Association between level of post-test knowledge scores of mothers regarding prevention and management of Napkin dermatitis in infants with selected demographic variables.

![Target population](image)

**Target population**

Mothers with children below 1 year of age residing at Naini, Allahabad as per inclusive and exclusive criteria

**Sampling Technique & sample size**

Non probability convenience sampling & n=60

**Assessment of Pre-existing knowledge of mothers regarding prevention and management on napkin dermatitis in infants using a SKQ (Pretest)**

**Assessment of knowledge of mothers regarding prevention and management on napkin dermatitis in infants using a SKQ (Post-test)**

**Chi-square test**

**Mean, SD, mean %, and paired t-test**

**Results & Discussion**

**Fig. 3. Schematic representation of data analysis**

**Section I:** This section reveals the level of knowledge of mothers regarding prevention and management of napkin dermatitis in infants before and after conducting structured teaching programme.

Table 1. Assessment of mothers’ pretest level of knowledge regarding prevention and management napkin dermatitis in infants n=60

| Level of knowledge          | Frequency | Pretest | %    |
|-----------------------------|-----------|---------|------|
| Adequate knowledge (> 75 %) | 0         | 0%      |      |
| Moderate knowledge (50-75%) | 37        | 61.6%   |      |
| Inadequate knowledge (<50 %)| 23        | 38.4%   |      |

Table 1 indicates the frequency and percentage distribution of mothers’ level of knowledge in pretest. Majority of 37(61.6%) had moderate knowledge regarding prevention and management of napkin dermatitis in infants. Of 23(38.3%) mothers had inadequate knowledge regarding prevention and management of napkin dermatitis in infants.
The Effectiveness of Teaching Programme Regarding Prevention and Management of Napkin Dermatitis

Table 2. Assessment of mothers’ aspect wise knowledge scores regarding prevention and management of napkin dermatitis in infants in pretest n=60

| S.No. | Knowledge variable                                | Maximum score | Mean | Mean%  | SD   |
|-------|---------------------------------------------------|---------------|------|--------|------|
| I     | General awareness about napkin dermatitis         | 7             | 3.63 | 51.9%  | 1.36 |
| II    | Causes of napkin dermatitis                       | 3             | 1.76 | 58.88% | .78  |
| III   | Clinical manifestations of napkin dermatitis      | 3             | 1.83 | 61.1%  | .74  |
| IV    | Prevention of napkin dermatitis                   | 8             | 4.23 | 52.9%  | 1.44 |
| V     | Management of napkin dermatitis                   | 9             | 4.33 | 48.1%  | 1.74 |
|       | Over all                                          | 30            | 15.8 | 52.66% | 3.68 |

The above Table 2 indicates assessment of mothers’ aspect wise knowledge scores regarding prevention and management of napkin dermatitis in children in pretest. The overall mean percentage was 52.66%. The mean percentage of knowledge in the aspect of general awareness about napkin dermatitis was 51.9%. The mean percentage in the aspect of causes of napkin dermatitis was 58.88%. The mean percentage in the aspect of clinical manifestations of napkin dermatitis was 61.1%. The mean percentage in the aspect of prevention of napkin dermatitis was 52.9%. The mean percentage in the aspect of management of napkin dermatitis was 48.1%.

Table 3. Assessment of mothers’ posttest level of knowledge regarding prevention and management napkin dermatitis in infants n=60

| Level of knowledge                  | Frequency | Post Test % |
|------------------------------------|-----------|-------------|
| Adequate knowledge (> 75 %)        | 39        | 65%         |
| Moderate knowledge (50-75%)        | 21        | 35%         |
| Inadequate knowledge (<50 %)       | 0         | 0%          |

The above Table 3 shows the frequency and percentage distribution of mothers’ level of knowledge in posttest majority of them 39(65%) had adequate knowledge regarding prevention and management of napkin dermatitis in infants, 21(35%) had moderate knowledge regarding prevention and management of napkin dermatitis in infants and no one had inadequate knowledge regarding prevention and management of napkin dermatitis in infants.

Table 4. Aspect-wise comparison of posttest level of mother’s knowledge regarding prevention and management of napkin dermatitis in infants n=60

| No | Knowledge variable                                | Maximum score | Mean | Mean%  | SD   |
|----|---------------------------------------------------|---------------|------|--------|------|
| I  | General awareness about napkin dermatitis         | 7             | 5.2  | 74%    | 1.18 |
| II | Causes of napkin dermatitis                       | 3             | 2.35 | 78.33% | .61  |
| III| Clinical manifestations of napkin dermatitis      | 3             | 2.55 | 85%    | .50  |
| IV | Prevention of napkin dermatitis                   | 8             | 5.97 | 74.6%  | .97  |
| V  | Management of napkin dermatitis                   | 9             | 6.26 | 69.63% | 1.19 |
|    | Over all                                          | 30            | 22.55| 75.16% | 2.59 |

The above Table 4 indicates assessment of mothers’ aspect wise knowledge scores regarding prevention and management of napkin dermatitis in children in posttest. The overall mean percentage was 75.16%. The mean percentage of knowledge in the aspect of general awareness about napkin dermatitis was 74.28%. The mean percentage in the aspect of causes of napkin dermatitis was 78.33%. The mean percentage in the aspect of clinical manifestations of napkin dermatitis was 85%. The mean percentage in the aspect of prevention of napkin dermatitis was 74.58%. The mean percentage in the aspect of management of napkin dermatitis was 69.16%.

SECTION-II: This section deals with the comparison of pretest and posttest knowledge scores of mothers regarding prevention and management of napkin dermatitis in infants.

The Table 5 shows that the comparison between pre and posttest knowledge scores of mothers regarding General awareness about napkin dermatitis (aspect 1) showed that ;Pretest knowledge score was (3.63), Posttest knowledge score was (5.2), Paired ‘t’ test value (7.45) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding General awareness about napkin dermatitis.
Comparison between pre and posttest knowledge scores of mothers regarding Causes of napkin dermatitis (aspect 2) showed that; Pretest knowledge score was (1.76), Posttest knowledge score was (2.35), Paired ‘t’ test value (4.131) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Causes of napkin dermatitis. Comparison between pre and posttest knowledge scores of mothers regarding Clinical manifestations of napkin dermatitis (aspect 3) showed that; Pretest knowledge score was (1.83), Posttest knowledge score was (2.55), Paired ‘t’ test value (6.90) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Clinical manifestations of napkin dermatitis. Comparison between pre and posttest knowledge scores of mothers regarding Prevention of napkin dermatitis (aspect 4) showed that; Pretest knowledge score was (4.23), Posttest knowledge score was (5.97), Paired ‘t’ test value (8.43) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Prevention of napkin dermatitis. Comparison between pre and posttest knowledge scores of mothers regarding Management of napkin dermatitis (aspect 5) showed that; Pretest knowledge score was (4.33), Posttest knowledge score was (6.26), Paired ‘t’ test value (8.222) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Management of napkin dermatitis. The overall pretest knowledge score of the respondents was identified as 15.33(52.66%), posttest knowledge scores is 22.55(75.16%); this difference was statistically analyzed with paired ‘t’ test and calculated ‘t’ value was 15.06. This was found on significant. Hence H1 is accepted.

SECTION-IV

The Table 6: Represents the chi-square value computed for association of posttest level of knowledge and Family history of napkin dermatitis. There exist a significant association between post-test knowledge level and educational status of the mothers ($\chi^2=8.14$, $P<0.05$). There exist a significant association between post-test knowledge level and source of information ($\chi^2=13.40$, $P<0.05$). There exist no significant association between occupation and post-test level of the mothers ($\chi^2=2.71$, $P>0.05$). There is no significant association between post-test knowledge level and per capita monthly income of mothers ($\chi^2=1.99$, $P>0.05$). There exist no significant association between age and post-test knowledge level of the mothers ($\chi^2=3.52$, $P>0.05$). There exist no significant association between post-test knowledge level and type of family ($\chi^2=1.32$, $P>0.05$) There exist no significant association between post-test knowledge level and Family history of napkin dermatitis ($\chi^2=2.93$, $P>0.05$). Hence H2 accepted among demographic variables such as Educational status and Source of information about napkin dermatitis. H2 was rejected among demographic variables such as age, occupation, per capita monthly income of the family, Type of family and Any family history of napkin dermatitis.

| Sl. No | Variable Category | Total No | Moderate No | Adequate No | $\chi^2$ Value |
|--------|------------------|----------|-------------|-------------|----------------|
| 1      | Family history of napkin dermatitis | | | | |
| a) Present | 5 | 8.4 | 0 | 0% | 5 | 100% | 2.93 |
| b) Absent | 55 | 91 | 21 | 38.2% | 34 | 61.8% | df 1 |

Note: S-Significant, NS-Non significant at 5 % ($P<0.05$) level.
6. DISCUSSION

A child with napkin dermatitis may develop erythema, oedema, intense pruritus, exudation, crusting and scaling. It may cause delay in the achievement of developmental milestones. It may be associated with allergic rhinitis, asthma and immunodeficiency. Proper education should be given to the mothers to make them vigilant towards the prevention and management of napkin dermatitis in infants. A structured knowledge questionnaire was used to collect the data. A pre experimental one group pre-test post-test design was used to assess the knowledge of 60 samples (mothers), on prevention and management of napkin dermatitis in infants via non-probability convenience sampling technique. After the administration of pre-test structured teaching programme regarding prevention and management of napkin dermatitis in infants was administered and post-test was conducted after 7 days using same structured knowledge questionnaire to find out the effectiveness.

1. The present findings revealed that the overall mean percentage of the pre-test knowledge score of the mothers was less (52.76%) with the individual component mean percentage values being as follows: 51.9% in General awareness about napkin dermatitis, 58.88% in causes of napkin dermatitis, 61.1% in clinical manifestations of napkin dermatitis, 52.9% in prevention of napkin dermatitis, 48.1% in management of napkin dermatitis. This shows that there is inadequate knowledge among mothers in all aspects regarding prevention and management of napkin dermatitis in infants. Lack of knowledge of mothers regarding prevention and management of napkin dermatitis was identified by researcher in the following studies which is similar to the present study. A study was conducted in Department of Dermatology, Ninewells Hospital, Dundee, UK regarding parental knowledge of topical therapies in the treatment of childhood napkin dermatitis. Poor adherence with therapy is a major cause of treatment failure in napkin dermatitis. Reasons given are multifactorial, and include fear of real or imaginary side-effects, under-prescribing, failure to renew prescriptions on time, lack of time, and child refusal of therapy. Most important, however, is lack of knowledge about treatment, in particular the use of topical corticosteroid (TCS) therapy. We conducted a questionnaire-based study to determine the level of use and knowledge of commonly prescribed TCS preparations amongst mothers or carers of 100 children attending paediatric outpatient clinics. The study result showed that the mothers had inadequate knowledge regarding the topical corticosteroid therapy (Lubec, 2005).

2. The study revealed that there was a considerable improvement in the knowledge of mothers after the administration of structured teaching programme and was statistically established as significant. Comparison between pre and posttest knowledge scores of mothers regarding General awareness about napkin dermatitis (aspect 1) showed that Pretest knowledge score was (3.63), Posttest knowledge score was (5.2), Paired ‘t’ test value (7.45) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding General awareness about napkin dermatitis. Comparison between pre and posttest knowledge scores of mothers regarding Causes of napkin dermatitis (aspect 2) showed that Pretest knowledge score was (1.76), Posttest knowledge score was (2.35), Paired ‘t’ test value (4.131) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Causes of napkin dermatitis. Comparison between pre and posttest knowledge scores of mothers regarding Clinical manifestations of napkin dermatitis (aspect 3) showed that Pretest knowledge score was (1.83), Posttest knowledge score was (2.55), Paired ‘t’ test value (6.90) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Clinical manifestations of napkin dermatitis.

Comparison between pre and posttest knowledge scores of mothers regarding Prevention of napkin dermatitis (aspect 4) showed that Pretest knowledge score was (4.23), Posttest knowledge score was (5.97), Paired ‘t’ test value (8.43) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Prevention of napkin dermatitis. Comparison between pre and posttest knowledge scores of mothers regarding Management of napkin dermatitis (aspect 5) showed that Pretest knowledge score was (4.33), Posttest knowledge score was (6.26), Paired ‘t’ test value (8.222) indicates there is a significant difference between pre and posttest knowledge scores of mothers regarding Management of napkin dermatitis. The overall pretest knowledge score of the respondents was identified as 15.33(52.66%), posttest knowledge scores is 22.55(75.16%); this difference was statistically analyzed with paired ‘t’ test and calculated ‘t’ value was 15.06. This was found on significant. Hence H1 is accepted.

This result was supported by similar study conducted in Department of Pediatrics, University of Bologna, Italy regarding an educational program for mothers of young children affected by napkin dermatitis. To improve the quality of life of children and families affected by napkin dermatitis they have offered an educational program to the mothers of young children affected by the disease. The program consists of six meetings at weekly intervals involving a pediatric allergist, a dermatologist, and a
psychologist. The study result showed that the educational programme was effective (Maleville and Capbern, 1985).

3. The association between the demographic variables and post-test knowledge scores of mothers was calculated using $\chi^2$ test at 0.05% (5% level). The demographic variables analyzed in the study were age, educational status, occupation, Percapita monthly income of the family, Sources of information, Any Family history of napkin dermatitis, type of family. There exist a significant association between post-test knowledge level and educational status of the mothers ($\chi^2=8.14$, $p<0.05$). There exist a significant association between post-test knowledge level and source of information ($\chi^2=13.40$, $P<0.05$). There exist no significant association between occupation and post-test level of the mothers ($\chi^2=2.71$, $P>0.05$). There is no significant association between post-test knowledge level and percapita monthly income of the family ($\chi^2=1.99$, $P>0.05$). There exist no significant association between age and post-test knowledge level of the mothers ($\chi^2=3.52$, $P>0.05$). There exist no significant association between post-test knowledge level of mothers and type of family ($\chi^2=1.32$, $P>0.05$). There exist no significant association between post-test knowledge level of mothers and Any Family history of napkin dermatitis ($\chi^2=2.93$, $P>0.05$). Hence H2 accepted among demographic variables such as Educational status and Source of information about napkin dermatitis. H2 was rejected among demographic variables such as age, occupation, percapita monthly income of the family, Type of family and Any family history of napkin dermatitis.

7. CONCLUSION

The focus of study was conducted to assess the effectiveness of structured teaching programme on prevention and management of napkin dermatitis in infants among mothers residing at Rural Naini, Allahabad. The study involved selection of 60 mothers by the non-probability convenience sampling technique and collection of data by structured knowledge questionnaire. One group pre-test post-test design and evaluative research approach was adopted to conduct the study. Data was analyzed and interpreted by using descriptive and inferential statistics. The conclusions were drawn on the basis of the study findings, it includes:

- The present study revealed that the majority of mothers had inadequate knowledge regarding prevention and management of napkin dermatitis in infants.
- After administration of structured teaching programme, mother’s knowledge on prevention and management of napkin dermatitis in infants increased.
- The present study shows that there is significant difference between pre-test and post-test knowledge scores of mothers in experimental group regarding prevention and management of napkin dermatitis in infants. Hence H1 is accepted.
- The present study shows that there is significant association between the Post-test knowledge scores of mothers group regarding prevention and management of napkin dermatitis in infants with demographic variables such as Source of information and Educational status. Hence H2 is accepted.

REFERENCES

[1] Akin F, Spraker M. Effects of breathable disposable diapers. [homepage on the Internet]. 2001[cited 2001 Aug 1]; 18(4). Available from: URL: http://www.ncbi.nlm.gov/pubmed.com

[2] Singalavania S, Frieden IJ. Diaper dermatitis. [homepage on the Internet]. 1995[cited 1995 Jan 7]; 20(7). Available from: URL: http://www.uptodate.com

[3] Berg RW. Etiology and pathophysiology of diaper dermatitis. [homepage on the Internet]. 1988[cited 1988 Mar]. Available from: URL: https://profeg.medscape.com

[4] Ward DB, Fleischer AB. Characterization of diaper dermatitis in the United States. [homepage on the Internet]. 2000[cited 2000 Feb 20]. 711(102). Available from: URL: http://www.ncbi.nlm.gov/pubmed.com

[5] Dr. SukantaChatterjee, Dr. NilanjanPramanick. Article related to napkin dermatitis. [homepage on the Internet]. 2009[cited 2009 Sep 30]. 155(102). Available from: URL: http://www.himalaya babycare.com

[6] Patrizi A, Neri I. Pigmented and hyperkeratotic napkin dermatitis: a liquid detergent irritant dermatitis. Dermatology. [homepage on the Internet]. 1996[cited 1996 mar 19]. 193(1). Available from: URL: http://www.ncbi.nlm.gov/pubmed.com

[7] Lubec G. Treatment of diaper rash with Parfenac lipid ointment (bufexamac). A study by Austrian paediatricians. [homepage on the Internet]. 2005[cited 2005 Jul 14]. 4(1). Available from: URL: http://www.ncbi.nlm.gov/pubmed.com

[8] Maleville J, Capbern M. Cutaneous microbiol flora in 206 children with diaper dermatitis and pyodermitis. [homepage on the Internet]. 1985[cited 1985 aug 5]. 4(5). Available from: URL: http://www.ncbi.nlm.gov/pubmed.com