

Assessment of Knowledge of Mothers Regarding Diaper Rashes in Infants in a Selected Rural Community, Kanchipuram District, Tamil Nadu, India

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Abstract

The study aimed at assessing the knowledge of mothers on diaper rashes a descriptive research design. The sample size consisted of 144 mothers. A Convenient Sampling was used for selecting the mothers. The Sampling criteria included the mothers of infants in the age group of 0 to 1 years of age. The demographic profile of the mother was assessed using a structured interview. A self-administered Questionnaire was used to assess mothers knowledge regarding diaper rashes. Data were analyzed using Descriptive analysis and Pearson Chi-Square analysis.

The study findings revealed that nearly 70% mothers had inadequate knowledge, 28% mothers had moderate knowledge, 2% mothers had adequate knowledge regarding diaper rashes in infants in rural community. A statistically significant association was found between mother's knowledge and number of children, educational status, occupational status, usage of diapers and source of information at $p > 0.005$.

The study helped to conclude that mothers have inadequate knowledge on diaper rashes.

Keywords: Diaper rashes, Mothers Knowledge, Infants.

Introduction

Diaper use for babies has been in practice since decades to prevent soiling and for social convenience. Diaper dermatitis is an irritating condition that develops on the skin that is covered by a diaper which causes discomfort to infants and anxiety to parents and caregiver **Kimberly A Horii, MD 2017¹**.

It is a very common cutaneous condition in neonates and infants, peaks between 9 and 12 months of age. It may be due to introduction of new foods which leads to skin irritation, peeling or scaling of the skin, red or pink patches and the rashes may become severe causing bleeding **A. Antonie Kazzie M.D 2006²**.

One study reported that the eruption of the skin in the diaper area is created by the presence of moisture, warmth, urine, feces and friction and is seen in 25% of children wearing diapers **Ward DB, Fleischas AB, Felman SR, Krowchuk Dp 2000³**.

Disposable diapers are associated with fewer cases of yeast diaper rash than cloth diapers. Absorbent gelling materials present in the disposable diapers draws away the moisture from delicate skin surfaces. Infants who wear breathable disposable diapers developed significantly fewer diaper rashes of any type than infants who wore standard, non-breathable disposable diapers

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in a series of clinical trials **Fernandis JD, Mchado Mc, Oliveria ZN 2009⁴**.

Although many people debate, that children who wear cloth diapers have fewer cases of diaper rashes due to the natural fibers and better circulation of air, proponents of disposable diapers disagree. Modern science has developed materials used in disposables that draw moisture into the diaper and away from the child's skin **Mahadevi M, S. Rajeshwari 2016⁵**.

Materials And Method

A Quantitative research approach with a descriptive research design was used in the study . The study was carried out in a selected rural community, Kanchipuram District, Tamil Nadu, India. The study population included all the mothers of infants in the selected rural community. The mothers of the infants who fulfilled the sampling criteria were the samples for this study. The sample was selected by using a convenient sampling technique.

Inclusion Criteria:

- Mothers of infants 0 to 1 year of age
- Mothers who use diapers for their child

Exclusion Criteria:

- Mothers who can't read and understand English and Tamil.
- Mothers who are not willing to participate in the study.

Sample Size Estimation: According to open source epidemiologic statistics for public health **Schaefer. RL¹⁸**.

$$n = [DEFF * ND(1-P)] / (Cd^2 / 2^2 1 - a / 2 * (n-1) + p * (1-p))$$

Population size (N) = 228

Confidence level: 95%

Confidence interval: 5%

At 95% confidence level the sample size (n) is 144

Data Collection: The research tool consisted of two sections.

Section-I: A Structured interview to assess the demographic profile of the mothers.

Section-II: A self-administered structured questionnaire to assess the mother's knowledge on diaper rashes in infants.

Scoring: Structured questionnaire on knowledge consisted of 17 questions. Each correct answer was awarded "one" mark and for wrong answer "zero" mark. Maximum score was 17 and Minimum score zero.

Categorization of level of knowledge on diaper rashes:

Level of knowledge on diaper rashes	Score %
Inadequate Knowledge	< 50%
Moderate Knowledge	50 -70%
Adequate Knowledge	> 70%

Analysis: Descriptive and Inferential statistics was used to analyze and interpret the data. Descriptive analysis was used to analyze the socio demographic data. Pearson chi square test was used to associate the knowledge of mothers with other variables.

Study Findings:

Distribution of Demographic Profiles of mother:

144 samples were recruited in the study in the age group of 21- 40 years. Majority of the samples nearly 54.16% were in the age group of 26-30 years.

The educational level of majority of samples nearly 25.69% were graduates, while 20.13% were higher secondary level, around 17.36% were high school, nearly 11.11% were post graduates and diploma and only 7.66% were illiterates.

With regard to occupational status nearly 82.63% were house wives and only 17.34% were working women. Nearly 60% of the samples belonged to Nuclear family while 40% were from Joint families. Majority of samples had 53.47% of one child and the remaining 46.53% had two children.

Nearly 53.48% of the samples were using diapers for their children and 46.52% were not using diapers. Nearly 46.52% of the samples received information on diaper rashes from family members, the other source of information were 31% health professionals and 22.23% were mass media.

- **The first objective of the study was to assess the level of knowledge regarding diaper rashes in infants among the mothers**

In this study, it was observed that 70% of the mothers had inadequate knowledge, while 28% of the mothers had moderate knowledge and 2% of the mothers had adequate knowledge on diaper rashes. This is in contrast to the study by **Vinitha D Souza et al., 2018⁶**, in which only 20% of mothers had inadequate knowledge, 54% mothers had moderate knowledge and 25% mothers had adequate knowledge.

- **The second objective of the study was to** associate the level of knowledge on diaper rashes with selected demographic variables of mothers.

There was statistically no significant association between the demographic variables (number of children, educational status, occupational status, usage of diapers, source of information) with the knowledge diaper rashes. The findings also shows that the demographic characteristics (age of mother and family type) had statistically significant association with the knowledge on diaper rashes at $p < 0.05$.

Similarly **Madhurishambhakar 2018⁷**, in their study found no significant association between the educational status, number of children, occupational status and source of information with the knowledge level. However **Jemy Elizabeth Joseph 2013⁸**, in their study projected that there was statistically no significant association between age of mother and family type with the level of knowledge.

Conclusion

This study was carried out to assess the level of mother's knowledge regarding diaper rashes in infants. As the Study findings revealed that 70% of mothers have inadequate knowledge while 28% of mothers had moderate knowledge and only 2% of the mother's had adequate knowledge regarding diaper rashes put comma after rashes hence it is necessary to create awareness among the mothers on diaper rashes.

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Conflicts of Interest: The Authors declared that there is no conflict of Interest.

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Ethical Clearance: The Study was done with the approval of the institutional Ethics Committee Chettinad Academy of Research and Education. Informed consent was obtained from the mother's who were assured of strict anonymity and confidentiality during this survey.

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