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A Study to Evaluate How Well Mothers of Infants Admitted to Selected Hospitals Understood Information Booklets on Managing and Preventing Diaper Dermatitis

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ABSTRACT

The etiology of diaper dermatitis is complicated; it may be a subtype of irritating contact dermatitis. Prolonged skin contact with feces as the primary cause and urine as the secondary cause leads to the development of this type of dermatitis in diaper-covered areas. There are several contributing elements to the pathophysiology. An erythematous rash, papules, scaling, and erosions around the thigh, scrotum, suprapubic region, and buttocks—typically where skin folds are found—are the hallmarks of diaper dermatitis.

INTRODUCTION

Diaper dermatitis (DD), also known as diaper rash or nappy rash, is an inflammation of the skin of the lower parts of the abdomen, lower back, thighs, skin folds, and diaper areas. Diaper dermatitis can be classified as chaffing dermatitis, irritant contact dermatitis, and diaper candidiasis. Diaper dermatitis can be primary (associated with irritants that spare the deep skin folds) or secondary (mainly caused by wild candida yeast). Atopic and seborrheic dermatitis correspondingly present as diaper rash. Fungal infections (Candida albicans and mycoses) and bacterial infections (S. aureus and Streptococcus pyogenes) are also etiologic agents for Diaper dermatitis Prolonged contact with urine or feaces, increased moisture, and irritants increase the likelihood of Diaper dermatitis. Infants' anatomy, creases, moist environment, and high skin folds make them more susceptible to dermatitis. **(Agegnehu Bante A, et.al.)**

The development of diaper dermatitis is multifactorial. Newborn skin exhibits a cutaneous immaturity and an increased susceptibility toward skin barrier disruption or percutaneous absorption. Diaper dermatitis is one of the widespread skin problems in newborn often caused by irritant that promote skin breakdown, such as moisture and faecal enzymes. It is reported that in tropics the incidence of diaper rash is higher as the region is hot. **(M.Mahadevi, S.Rajeswari,et.al.)**

In most cases diaper dermatitis is a form of irritant contact dermatitis, eruptions in the diaper area may represent exacerbations of more diffuse skin diseases, such as seborrheic dermatitis or atopic dermatitis, or may be the manifestation of unrelated skin conditions that coincidently manifest in the diaper area.**(Kimberly A Horii, MD 2022)**

Diaper dermatitis has a complex pathophysiology, it could be a type of irritant contact dermatitis. This type of dermatitis develops in areas covered by the diaper as a result of prolonged skin contact with faeces

as the primary factor and urine as a secondary factor.A variety of factors contribute to thepathophysiology. Diaper dermatitis presents as anerythematous rash, papules, scaling, and erosionsaround the thighs, scrotum, suprapubic area, andbuttocks, characteristically where skin creases. Theprimary treatment is to keep the skin around thediaper area as dry as possible by frequent diaperchanges together and careful selection of the diaper type. Some creams (barrier creams) and mildtopical corticosteroid treatments are also availableto protect the infant's thin skin and to reduce any inflammation. **(Mohammad A. Alghamdi Hasan S. et.al.)**

In mild cases, your baby may have slightly reddened skin around their buttocks, genitals and thighs. The area may be warm to the touch. The rash may be just a few spots, or it may cover the entire diaper area. In more severe cases, the rash may include painful, open blisters or sores. Yeast infection — Yeast (Candida) infections can develop if irritant dermatitis is not treated for more than a few days. Signs of yeast diaper dermatitis include dark red areas of skin with or without raised yellow, fluid-filled pustules that can rupture and flake. **(clavel and clinic 2020)**

BACKGROUND OF THE STUDY

Urine produces ammonia when it decomposes. As a result, the baby's stool enzymes become more active and the pH of the skin increases, making it more basic or alkaline throughout. This might cause skin and tissue damage and result in diaper hasty.

The general term for skin rashes in the diaper (or "nappy" in British and Australian English) area that are brought on by different skin conditions and/or irritants is irritant diaper dermatitis (IDD), sometimes known as a diaper or nappy rash.

The hallmarks of generic irritant diaper dermatitis are scaling and connected erythema patches that are m ostly observed on convex surfaces, sparing the skin folds.

Secondary bacterial or fungal involvement in diaper dermatitis often spreads to concave surfaces (i.e.ski n creases), convex surfaces, and frequently a red, meaty erythema in the center with satellite pustules sur rounding the edge.

It is often regarded as a kind of dermatitis caused by irritating contact. The term "diaper" appears in the name not because the diaper itself causes rashes, but rather because using a diaper is linked to rashes, which are brought on by things that the diaper traps (typically excrement). Although there is little evidence to support this theory, allergic contact dermatitis has also been proposed.[5] The rashes in adults with urine, fecal, or both types of incontinence are occasionally referred to as incontinence-associated dermatitis (IAD).

Any person who uses diapers, regardless of gender, can have diaper dermatitis. Skin immaturity puts newborns and infants at higher risk. The peak incidence occurs between the ages of 9 and 12 months. About 50% of babies get diaper dermatitis, and it represents almost 25% of primary care visits for dermatological issues throughout the first year of infancy. **(National library of medicine 2023)**

Diaper dermatitis accounted for 8.2 million pediatric visits between 1990 and 1997, according to the National Ambulatory Medical Care Survey. The estimated risk of diaper dermatitis throughout childhood was one in four. In newborns, the approximate frequency of Diaper dermatitis can affect 7–40% of people. Although it can appear as early as one week of age, diaper dermatitis is most common between the ages of nine and twelve months**. (Kimberly A Horii, MD 2022)**

NEED OF THE STUDY

Recently, there have been few reports of diaper dermatitis with psoriasiform id eruptions, despite the condition having been well-described in the past. We describe a post-ureterostomy infant who developed candidal diaper dermatitis while receiving continuous antibiotic treatment. accompanied by widespread outbreaks of psoriasis. A 6-month-old boy arrived at the pediatric dermatology clinic of Amrita Institute of Medical Sciences, a teaching hospital and tertiary care facility in Kochi, Kerala, with a one-month history of scaly lesions on his body that appeared suddenly for two days and persistent reddish raised lesions in the diaper area. Infant dermatoses that started as napkin dermatitis and progressed to a widespread psoriasiform eruption were reported in the early 1960s**. (Fergusson et al.)**

52 instances of diaper dermatitis with psoriasiform id eruptions were examined in 1966, and Candida albicans was identified as the clear causal agent. The most prevalent skin ailment among children below is diaper dermatitis. 24 months, with children ages 8 to 12 months suffering the most, typically as a result of the introduction of solid foods, or complementary feeding. An estimated 20% of pediatric dermatological cases in medical institutions are thought to be diaper dermatitis. Even while it is often less deadly, it can worsen into a very painful disease that may be caused by a bacterial or fungal infection, necessitating urgent medical care for newborns and causing worry and anxiety for worried parents in particular.

In Bangladesh, women who were aware of the causes, preventions, and proper cleaning techniques for the diaper region during diaper changes reported less cases of diaper dermatitis, making knowledge of diaper management practices a major predictor of the condition. Diaper dermatitis among their babies (24.0%) compared to those who did not (36.5%). Only 37% of mothers in Korea used the recommended skin barrier to avoid diaper dermatitis, according to Kim et al.'s study, which found that 59.7% of mothers had knowledge practices.

Many babies with diaper rashes lack enough understanding about managing and preventing diaper dermatitis, according to the researcher's clinical experience and the literature study. In his professional expertise, the researcher discovered that Diaper dermatitis in newborns requires ongoing education to lower the risk of problems by altering their lifestyle, since the newborns with diaper rashes knew very little about their hygiene awareness. Thus, the researcher felt compelled to investigate this subject. This aids the infant's mother in preventing the illness from developing.

STATEMENT OF THE PROBLEM

An investigation into the efficacy of an information booklet on diaper dermatitis management and prevention among mothers of infants admitted to a particular hospital in Sagar (M.P.)

OBJECTIVES OF THE STUDY

- Assess the pre test level of knowledge regarding management and prevention of diaper dermatitis among mother of infants.
- Administer the information booklet on knowledge regarding management and prevention of diaper dermatitis among mother of infants.
- Assess the post test level of knowledge regarding management and prevention of diaper dermatitis among mother of infants.
- Find out the significance difference between pre and post – test level of knowledge regarding management and prevention of diaper dermatitis among infants and their selected demographic

variables.

- Associate pre – test level of knowledge regarding management and prevention of diaper dermatitis among mother of infants with selected demographical variables.

OPERATIONAL DEFINITION

Effectiveness: It refers to the impact of educational package on knowledge about management and prevention of diaper dermatitis among mother of infant.

Information booklets: It refers to a complete material used as informal source to provide information which includes new born care, diaper rashes, symptom, management, prevention, and home care for diaper rashes in mother of infant.

Knowledge: It refers to the basic or existing awareness of mother of infant regarding management and prevention of diaper dermatitis among mother of infants to care about diaper rashes.

Diaper Dermatitis: It refers to the presence of rash in the thighs and buttocks of infants, supposedly caused by ammonia in the urine or feces of child's diaper.

Management: It refers to the mother the treatment for diaper rash is to keep yours baby skin as clean and dry as possible. If your baby's diaper rash persists deposited home treatment.

Prevention: It refers to the measures taken by mothers in keeping the baby free from occurrence of diaper dermatitis such as choice of the diaper, proper care of non-disposable diaper, periodic checking for soiling and wetness, size of the diaper and proper cleaning of the diaper area.

Mothers: It refers to a female parent of a child whose infant is currently admitted in the hospital for treatment ϖ Infants - It refers to a baby under one year of age currently admitted in the hospital for some medical problem

RESEARCH HYPOTHESIS

H1: At the < 0.05 level of significance, there is a significant mean difference between the newborn mother's pre-test and post-test knowledge scores about managing and preventing diaper dermatitis.

H2: At the < 0.05 level of significance, there is a significant correlation between the pre-test knowledge score of mothers on the management and prevention of diaper dermatitis and their demographic characteristics.

DELIMITATIONS

- The study is limited to mothers in Shri Chaitanya Mahaprabhu Hospital Sagar.
- The study period is limited to 4 – 6 weeks of duration.
- Sample size is limited to 50 mothers of infants.

CONCEPTUAL FRAMEWORK

Polit and Beck (2012), describe a framework is the overall conceptual underpinning of the study; every study has a framework, in a study based on theory the framework is referred to as theoretical frame work. The present study intended to assess the effectiveness of information booklet on knowledge regarding management and prevention of diaper dermatitis among mothers of infants admitted at selected hospital Sagar (M.P.).The theoretical framework adopted for the study is based on Modified Imogene M. King's Goal Attainment Model (1981) with the concept of perception, goal, setting, action, interaction and

transaction or goal attainment the goal was to increase the knowledge among mother of infants regarding management and prevention of diaper dermatitis in selected hospital Sagar.

The concept of self-perception, communication, interaction, and transaction are explained self is an individual whose perception and role influence that person's communication, interaction making in group. This model focuses the process whereby individual interest to mutually set goal that result in goal attainment in the present study interaction takes place between the investigator and the mother of infant.

Perception - Parker, M.E. (2006), defined perception as the primary features of the personnel system because it influenced all other behaviour, refers to a person s representation of reality; it is universal, yet highly subjective and unique to each other. In the present study investigators perceive lack of knowledge among mother of infant regarding management and prevention of diaper dermatitis.

Goal setting - According to Ward, S. (2005), describes that it is a process of deciding what the person wants to accomplish and devising a plan to achieve the result. In the present study the investigator set the goal to improve knowledge of mother of infant regarding management and prevention of diaper dermatitis.

Action - During the action phase, investigator prepared the information booklets and structured questionnaire for mother of infant regarding management and prevention of diaper dermatitis.

Interaction - Parker, M.E. (2006), stated that interaction refers to verbal and non verbal behaviour between the individual and the environment or between two or more individual: it involve goal directed perception and communication. During the interaction the investigator administered structured knowledge questionnaire to assess the knowledge of mother of infant regarding management and prevention of diaper dermatitis. soon after the administration of questionnaire information booklets distributed to the each mother of infant and also post-test was done on the 7th day of pre-test and with the same questionnaire which was administered in the pre-test.

Transaction /goal Attainment - Parker, M.E. (2006), stated that the interaction between a person and the environment for the purpose of goal attainment. In present study, transaction is the gained knowledge among mother of infant regarding management and prevention of diaper dermatitis.

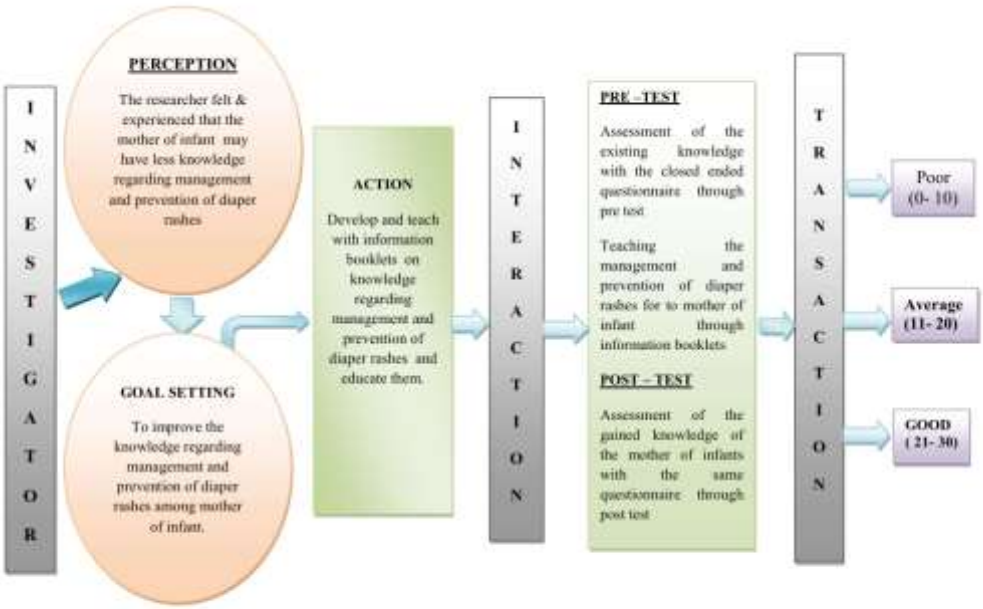


FIGURE: 1:1 THEORETICAL FRAMEWORK BASED ON MODIFIED IMOGENE M. KINGS GOAL ATTAINMENT MODEL (1981) ON KNOWLEDGE REGARDING MANAGEMENT AND PREVENTION OF DIAPER RASHES AMONG MOTHER OF INFANT

SUMMARY

The introduction, study backdrop, research need, problem statement, objectives, operational definitions, assumptions, delimitations, legal and ethical considerations, and study theoretical framework were all covered in this chapter.

REVIEW OF LITERATURE

A selection of literature pertinent to the current investigation is presented in this chapter.It is a crucial stage in the research project's progress. The review gave the researcher a better understanding of the issue and provided information on previous efforts. what must be done.

A literature review is a collection of written works that attempts to examine the important aspects of current knowledge and/or methodological methods about a certain subject. Typically included in academically focused works, such as these, a literature review comes before a section on the research idea and findings. Its ultimate objective is to update the reader on the most recent research on a subject and serves as the foundation for additional objectives, such potential future research needs. A coherent flow of ideas, up-to-date and pertinent references with a consistent, suitable referencing style, acceptable terminology use, and an objective, thorough assessment of the prior research on the subject are all characteristics of a well-structured literature review.

Pollit (1999), literature review refer to the activities involved in identifying and searching for information on a topic and develop an understanding of the state of knowledge on that topic.

This chapter deals with literature reviewed in the area on knowledge regarding management and prevention of diaper rashes among mothers of infant admitted in the selected hospital at Sagar M.P.

Literature reviewed for study has been organized under following headings:

- Part - I - Literature related to prevalence and incidence diaper dermatitis.
- Part -II - Literature related to knowledge of diaper dermatitis.
- Part -III- Literature related to knowledge on mother.

PART – I - LITERATURE RELATED TO PREVALENCE AND INCIDENCE DIAPER DERMATITIS

Andrew Ncar, Thomas Dewitt et.al (2019), Diaper dermatitis is an acute, episodic inflammatory condition characterized by erythema, papules, & pustules in the diapered area. While common, Diaper dermatitis is rarely serious from a medical standpoint, but can cause discomfort for infants and anxiety for caregivers. A cross-sectional study of 1791 babies (~600 from each country) was recruited at each clinical site. Based on regional toilet-training habits, exclusively diaper-wearing infants were recruited between ages 2-8 months in China and 2-18 months in the USA and Germany. Diaper dermatitis was measured, as well as skin pH, trans epidermal water loss (TEWL), and relative humidity (RH) in the diapered region. Caregiver habits were collected via a questionnaire and included information on hygienic practices. Results were revealed that the study design, there were differences in age, weight, race, ethnicity, & Fitzpatrick skin type between countries. Comparisons across geographies were also conducted on a subgroup of baby age 2-8 months In babies 2-8 months of age, DD scored as moderate or greater severity (eg, a score of ≥2.0) was relatively infrequent, occurring in just 1.3% of babies in China, 8.7% in the USA, and 14.9% in Germany. One instance of Candida was noted in a baby from Germany in the setting of mild Diaper dermatitis. Discussion: This study assessed Diaper dermatitis prevalence and severity in

representative countries of Asia, North America, and Europe utilizing a Diaper dermatitis scoring tool taking into account four skin attributes at four anatomic sites.

Chonnakarn Sukhneewat et.al (2019), Diaper dermatitis refers to any clinical sign of skin inflammation that occurs on the area covered by a diaper. This cross-sectional study was conducted at the Khon Kaen University, Faculty of Medicine, Pediatric Department, in the Well Baby Clinics between November 2015 and January 2017. All children aged 1–24 months were eligible. A total of 1153 children were recruited for the study: 585 (50.7%) boys and 568 (49.3%) girls. Their ages ranged from 1 to 24 months (median = six months) with a mean age of 8.7 months (SD 4.3). The prevalence of diaper dermatitis was 36.1% (416/1153). The highest prevalence was among the children who were 1–6 months old (47.9%). This age group also had a significantly higher prevalence of diaper dermatitis than the other three age groups (7–12, 13–18 and 19–24 months; $P < 0.05$). Figure represents the variation in the prevalence of diaper dermatitis among the different age groups. There were no significant differences in term of prevalence between sexes (boys 37.4% [219/585] versus girls 34.5% [249/721]; P-value = 0.31). Discussion To our knowledge, this study is the first report on the prevalence of diaper dermatitis in Thai children. The age of the study population ranged from 1 to 24 months, as previous studies found children in this age range to have a high prevalence of diaper dermatitis. The high prevalence is due to the fact that children in this age range still need diapering.

Sirirus Lebsing, Jitjira Chaiyarit et.al (2020), Rashes around the diaper area are common in the pediatric population, especially among those who are diaper dependent. The majority of rashes in the diaper area turn out to be irritant diaper dermatitis (IDD), meaning that they are caused by irritation from urine and feces, which is aggravated by wearing diapers. This prospective descriptive study aimed to explore variation in cutaneous disease in the diaper area. It was conducted as a prospective descriptive study between October 2016 and November 2019 in the paediatric department of a tertiary level hospital. Three hundred consecutive patients with rashes in the diaper area were enrolled. The most common diagnosed was IDD (125 cases; 41.7%), followed by rashes exacerbated by the diaper (101 cases; 33.67%) and non-diaper-related rashes (74 cases; 24.67%).Discussion: We found various types of diaper area rashes in the study population. The most common was IDD, which was found in 41.67% of participants. This type of cutaneous lesion has been defined by Cough linel alas a skin condition caused by the presence of a diaper. This condition was significantly more common than non-diaper related eruptions in participants aged under 24 months. However, the opposite was true in participants aged over 24 months ($P < 0.001$:), which is likely explained by the fact that children under 24 months of age are more likely to be diaper dependent.

Porntipa Suebsarakam et.al (2020) Diaper dermatitis is an inflammation of the skin due to prolonged contact with various irritants, such as stool, urine, and moisture, as a result of diaper use. The condition is occasionally enhanced by bacterial overgrowth. Cross sectional analysis and tests for correlation were conducted to determine the factors associated with diaper dermatitis among the study population. Result. The prevalence of diaper dermatitis during the study period was 17.2%. Factors significantly correlated with the occurrence of diaper dermatitis were beginning toilet training later than 2 years of age (odds ratio [OR] = 2.84, 95% CI = 1.17-6.86, P = .02) and the use of oral antibiotics (OR = 15.92, 95%CI = 3.57-70.94, P <.001). Conclude the study prevalence of diaper dermatitis among children aged 2 to 4 years in 2 Khon Kaen daycare centres was 17.2%. This number is apparently low compared with that found in a previous study in children.

Mohammad A. Alghamdi et.al (2022), Diaper dermatitis is the most common dermatological condition which affects the paediatric age group. A variety of factors contribute to the pathophysiology. This was a cross-sectional study of 389 parents using structural questionnaires. Result was revealed that the prevalence of diaper dermatitis was 39.33% (153/389). The highest prevalence was among children who were 19-24 months old (65%). When comparing gender groups, females had a higher prevalence (44.4%) compared to males (34.7%) (p=0.005). Preterm babies had a slightly lower prevalence than babies. Discussion Diaper dermatitis is a inflammatory skin eruption that develops in the diaper area. It typically affects infants and toddlers, but it can affect anyone who wears a diaper. It has been noted that more than 50% of infants are likely to experience at least a single episode of diaper dermatitis.

Agegnehu Bante a et.al (2022) Prolonged contact with urine or feces, increased moisture, and irritants increase the likelihood of Diaper Dermatitis. Infants' anatomy, creases, moist environment, and high skin folds make them more susceptible to dermatitis. The lower abdomen and lumbar region, gluteal area, genitalia, and inner aspects of the thighs are primarily affected by Diaper Dermatitis. A facility-based cross sectional study was conducted among 671 mother-child pairs from May 15 to June 15, 2022. Result was revealed that the 664 mother-child pairs, yielded a response rate of 98.96 %, were involved. Overall, 35.69 % [95 % CI: 32.04, 39.47] of children encountered diaper dermatitis. Being government-employed (AOR: 2.49, 95 %CI: 1.42,4.35), primiparity (AOR: 1.52,95 % CI: 1.03,2.23), unplanned pregnancy (AOR: 1.93, 95 % CI: 1.22, 3.04), having poor knowledge about diaper dermatitis (AOR: 1.74, 95 % CI: 1.19, 2.56), using both disposable and non-disposable diapers alternatively (AOR: 3.35, 95 % CI: 1.55, 7.22), and applying ointments on diaper area (AOR: 1.93, 95 % CI: 1.26, 2.97) all increase the likelihood of diaper dermatitis. Discussion: The current study revealed that over one-third of infants/toddlers experienced Diaper Dermatitis. In this study, 35.69% of infants encounter Diaper Dermatitis. This finding is in line with the studies conducted in Thailand (36.1%), Nigeria (38.9%), and Saudi Arabia (39.33%). However, this finding is higher than a large-scale study conducted in China (1.3%), the USA (8.7%), Germany (14.9%) [8], Japan (25.0 %),Dakar (22.8 %),Cameron (18.4%), and Kenya (27.3%).

PART -II - LITERATURE RELATED TO KNOWLEDGE OF DIAPER DERMATITIS.

Chonnakarn Sukhneewat et.al (2019) Diaper dermatitis refers to any clinical sign of skin inflammation. He conducted a study on a survey of risk factors in Thai children aged under 24 months. This was a cross-sectional study of 1153 participants using structural questionnaires, which was conducted at Khon Kaen University Faculty of Medicine Paediatric department in Thailand. It reveals the prevalence of diaper dermatitis among the study population was 36.1%, a rate which significantly decreased with age. The highest prevalence was found in subjectswho were one to six months old. Risk factors that had a statistically significant association with diaper dermatitis in both univariate and multivariate analysis were diaper changing fewer than three times/night, previous episodes of diaper rash, using cloth diapers, and topical application of baby talcum powder to the diaper area. Discussion: this study is the first report on the prevalence of diaper dermatitis in Thai children. The age of the study population ranged from 1 to 24 months, as previous studies have found children in this age range to have a high prevalence of diaper dermatitis.

Zahir Sadique, Nurunnahar Fatema Begum (2020) Use of disposable diapers by parents for their children has grown in last few decades. Although, most of the time diaper rash is not life threatening, it is a concern for the parents, and uncomfortable and painful for children. This cross-sectional study was conducted during the outpatient visits of mothers & their infants at the Combined Military Hospital located

in Cumilla, Bangladesh between 01 February 2015 and 31 July 2015 with their infants. A structured, self-completed, closed-ended questionnaire was provided to 110 mothers who came to visit the Pediatric outdoors. Result was revealed that the Thirty-seven (33.64%) infants aged one or under were reported to have experienced diaper rash during or prior to enrolment in the study. Study analysis showed that the risk of diaper rash was significantly higher in babies who used only 1-2 diapers/day than for babies who used more than 4 diapers/day (40.0% vs 21.43%). Infants whose mothers had knowledge of the causes and preventions of diaper rash and/or who received information about the importance of the proper cleaning of the diaper area during diaper changes suffered fewer incidents of diaper rash than those whose mothers did not (24% vs 36.48%). The causes of diaper rash were described by 48.65% mothers as heat followed by 27.03% mothers by frequent stool/urine. Discussion: Frequently changing disposable diapers and cleaning the diaper area thoroughly can reduce cases of diaper rash dramatically in children less than one year old. The knowledge of mothers regarding diaper rash is an important factor in reducing diaper rash in their children.

M. Mahadevi, S. Rajeswari et.al (2020). Newborn period comprise the first four weeks of extra uterine life. Newly born infants have distinctive skin structure, physiology so that the skin easily break, hence skin cleansing is essential to maintain good skin integrity of the newborn. The research design adopted for this study was experimental Pre-test post test control group design. 60 primi mothers posted for elective caesarean delivery at Sri Ramachandra Hospital were the participant randomly allocated 30 each study and control group. One -to- one teaching with laptop and demonstration of diaper changing was taught to study group. Data collection tools consisted of Background variable, questionnaire forknowledge, Checklist for practice, and Neonatal skin condition scale. Pre-test was conducted one day prior to the elective caesarean delivery, post-test on 5th postnatal day. Data was analysed through descriptive and inferential statistics. There was significant increase in the knowledge and practice at the level of p value $p<0.001$ for the study group after receiving diaper dermatitis preventive strategies, regarding occurrence of diaper dermatitis study group newborns experienced lesser degree of diaper dermatitis than the control group even though there is no statistical significance between the study and the control group. Diaper dermatitis preventive strategies facilitate knowledge acquisition, improves practices, prevent the diaper rash among newborn.

Neha Singla, Mamta, Deepika (2022) Hygiene is most important condition in babies as babies are more vulnerable to infection as his/her immune system is not like the immune system of adults. Diaper rash is marked by red, puffy, and tender skin in the diaper region like, buttocks, thighs, and genitals. Diaper rash is most likely to occur in infants 7–12 months old, perhaps in response to an increase in eating solid foods and dietary changes around the age that affect fecal composition. A descriptive research design was used to conduct the study. The sample of 60 mothers was taken by using purposive sampling technique. Self-structured questionnaire was used to assess the awareness and checklist to assess practices of mothers related to diaper rash. Analysis was done using descriptive and inferential statistics. The findings revealed that majority of mothers i.e., 76% had good level of awareness regarding diaper rash, and maximum number of mothers i.e., 92% had satisfactory practices regarding diaper rash. The correlation of awareness and practices was statistically tested and found to have weak positive correlation. Association of socio-economic status and educational status of mothers was found to be statistically significant at $p<0.05$ with awareness and practices, respectively.

Bodzewan Emmanuel Fonyuy et. al (2023) Diaper dermatitis, also known as diaper rash, is a common skin irritation that affects infants and children who wear diapers. A study on Knowledge level and practices

of nursing mothers in its preventive management in the azire health area in northwest Cameroon. The study used a descriptive cross sectional design in which primary data was collected from a sample of women selected randomly at a given point in time to be a representative of mothers living in the Azire Health Area, on their knowledge level, practices of diaper dermatitis preventive management as well as the constraints encountered. Result was revealed that the majority (76.3%) Of the mothers were aged below 30. Also, most (61.8%) of them others were engaged in economic activities, and Majority of the mothers (88.4%) interviewed had at least one child using diapers. These findings conclude an appreciable level of knowledge on diaper dermatitis, like a study carried out in Cameroon by where they found that 87% of mothers were aware of diaper dermatitis. As concerns practices in diaper change, 60% of respondents reported using baby wipes, 5% bathe their baby, 15% wash the diaper area using soap and water, 10% use the unsoiled part of the diaper in change, while 10% mentioned other practices like using talcum powder, petroleum jelly,or kernel oil after wiping the baby with a cloth.

Ismail Yildiz, Ozgur Kizilca, et.al (2023) Newborns and infants have a different skin structure, composition, and function compared to adults. The stratum corneum, the outer layer of the epidermis is responsible for the skin barrier function, which protects against external irritants & chemicals and regulates the water loss. The questionnaire- based cross-sectional study was conducted between September and December 2021. The questionnaire which contained 21 items aimed to investigate the approaches of Paediatricians to diaper dermatitis treatment, follow-up and prevention strategies. Result was revealed that the total of 217 paediatricians (59.4% female, median age 40.0 years) practicing in 32 different provinces of Turkey completed the questionnaire. The most preferred medical treatments in the first visit of children with diaper dermatitis, in respect of frequency, were zinc oxide, panthenol/Dex panthenol, and hamamelis virginiana extract (70.9%, 36.9%, 33.6% respectively). If there was no response to the first-line treatment in the control examination, the treatment was rearranged by adding an antifungal cream, topical low-potency corticosteroids, and/or high concentration zinc oxide creams (67.7%, 57.6%, 28.6%, respectively). Most cases were referred to a dermatologist if these treatments were not effective in the control visits of patients. Discussion: It is well known that topical protective barrier creams are extensively used for both treatment and prevention of diaper dermatitis by physicians and caregivers of infants.15 A variety of topical barrier creams are available in the market such as zinc oxide in various concentrations, petrolatum, lanolin, paraffin, dimethicone and panthenol. Furthermore, these formulations can be used either alone or in combination.

PART -III- LITERATURE RELATED TO KNOWLEDGE ON MOTHER.

Jemy Elizabeth Joseph, Shiju Mathew (2013) The neonates are unique in several ways in comparison with older childrenand adults which render them highly susceptible to severe dermatologicaldisorders. Infants are particularly at risk for developing diaper dermatitis andits potential consequences. It is one of the most common skin problems ininfants and children, affecting between 7 and 35 per cent of infants at somepoint. 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. Results shown that 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 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. Discussion: A child with napkin dermatitis may develop erythema, oedema, intense pruritus, exudation, crustingand 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 makethem vigilant towards the prevention and management of napkin dermatitis in infants.

Gracia Ker Eke, et. al (2013) Irritant diaper dermatitis, commonly known as nappy or diaper rash, can be regarded as the prototype of irritant contact dermatitis, which is a generic term applied to skin rashes in the diaper area that are caused by various skindisorders and/orirritants. A cross-sectional study of mothers presenting with children aged 2 years and below to the Paediatric Outpatient Clinics of the University of Port Harcourt Teaching Hospital. Results: Thirty-seven (33.64%) infants aged one or under were reported to have experienced diaper rash during or prior to enrolment in the study. Study analysis showed that the risk of diaper rash was significantly higher in babies who used only 1-2 diapers/day than for babies who used more than 4 diapers/day (40.0% vs 21.43%). Infants whose mothers had knowledge of the causes and preventions of diaper rash and/or who received information about the importance of the proper cleaning of the diaper area during diaper changes suffered fewer incidents of diaper rash than those whose mothers did not (24% vs 36.48%). The causes of diaper rash were described by 48.65% mothers as heat followed by 27.03% mothers by frequent stool/urine.Discussion The prevalence of nappy rash or nappy dermatitis in this study was 34% and was higher than the 7% reported by Odueko et al amongst children who presented to an urban Comprehensive Health Centre with dermatological conditions in Nigeria. It is however, in keeping with previous reports in developed countries where it was found to be a highly prevalent dermatological disorder amongst nappy/diaper wearing children.

Madhuri Shambharkar (2018) 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. conducted a research study on effectiveness of planned teaching regarding prevention of diaper dermatitis among the mothers of infants. 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. 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.

Dr. V. Hemavathy, Dr. Sathya Latha Sarathy, et. al (2019) New-born period comprise the first four weeks of extra uterine life. Newly born infants have distinctive skin structure, physiology so that the skin easily break, hence skin cleansing is essential to maintain good skin integrity of the new-born. Diapers

have been used for care of babies since decades to prevent diaper area soiling and for social convenience. Evaluative research approach and pre experimental one group pre- test and post- test was adopted for the study. The research setting was Sree Balaji Medical College and Hospital, Chrompet, Chennai-44 and sample size was 30 infants mothers are selected by non probability convenient sampling technique. In pre-test majority of the infants mothers reveals 15 (50%) have inadequate knowledge, 9(30%) moderately adequate, 6(20%) adequate knowledge about diaper rashes. Reveals the post-test assessment score of the infants mother after the structure teaching programme on the diaper rashes. Regarding the post test assessment, majority of the infants mother 3(10%) inadequate knowledge, 9(30%) gained moderately adequate, 18(60)% gainedadequate knowledge. The pre-test mean score was 5.7 with standard deviation 2.95, and the post-test mean score was 15.2 with standard deviation 3.66 the obtained paired 't' value 16.07 which reveals there was statistically highly significant difference between the pre-test and post-test at P <0.03. The study concluded that majority of the infants mother gained adequate knowledge on diaper rashes. Furthermore the teaching programme was found to be effective as it has not only imparted knowledge but skills on how to perform diaper rashes.

Dr. S. Rajamani & Dr. M.G.R et. al. (2019), Newborn skin darkens before the newborn takes his or her first breath (whenthey make the first vigorous cry). Newborn skin differs depending on the length of pregnancy. Premature infants have thin, transparent skin, full term infant has thicker and post term baby has wrinkled or peel off skin. At the baby's 2nd or 3rd day the skin lighten, dry and flaky. True experimental design was used. 60 subjects were selected by simple random sampling technique. Lanolin gel applied twice daily for 5 days. Post test done by using diaper rash assessment scale. Result: There was significant reduction in level of diaper rash which was confirmed by student's independent t-test value was 5.19 at p = 0.001.

Mrs. Ashwini M S, Prof. Nisha Clement, et. al. (2019) Children's health was once a part of adult medicine. WHO aim is to create a mission to "Create a world in which everyone, especially adolescents enjoy the highest standards of health and development, whereby all are protected, respected, nurtured to live their life to its full potential while ensuring that their needs and rights are fulfilled"'. Pre-experimental design that is one group pre- test and post- test design was applied. Result: The study revealed that the overall score in the pre-test was mean13.15, standard deviation 3.14 & mean score percentage was 41%. This shows that the knowledge of mothers regarding prevention & management of dermatitis in children was inadequate. Majority 45(90%) had adequate knowledge and 5(10%) had moderately adequate knowledge. Analysis revealed that, majority 40(80%) had adequate knowledge and 6(12%) had moderately adequate knowledge. On analysing it was found that majority 41(82%) had adequate knowledge and 18(36%) had moderately adequate knowledge. Majority 47(94%) had adequate knowledge and 6(12%) had moderately adequate knowledge's. Discussion: The study showed that there was a significant improvement in the knowledge scores after the administration of planned teaching programme. Hence it can be concluded that the planned teaching programme was effective in improving the knowledge of pregnant mothers on prevention of neonatal hypothermia.

Jin Sun Kim, Yong Sun Jeong, et.al. (2019) conducted a study on Knowledge of Diaper Dermatitis and Diaper Hygiene Practices among Mothers of Diaper-wearing Children. The study involves the participants 176 mothers who presented to an outpatient clinic at a children's hospital with diaper-wearing children. Data were collected using a structured self-administered questionnaire. Result: Study reveals that the percent of correct answer for knowledge about Diaper Dermatitis was 59.7%. Diaper Dermatitis Inappropriate diaper hygiene practices, such as using talcum powder on Diaper Dermatitis and rubbing

with a dry towel after cleansing, were reported. Moreover, only 37% of mothers used the recommended skin barrier to prevent Diaper Dermatitis. Although many children suffer from Diaper Dermatitis, levels of educational experience and perceived need for education on this topic were low. Almost 70% of mothers obtained Diaper Dermatitis related information through internet sites. Discussion: Educating parents about the etiology of Diaper Dermatitis and evidence-based diaper hygiene practices is an important aspect of effective prevention and treatment. Internet sites or smartphone apps may be effective methods for education on Diaper Dermatitis prevention and treatment considering parents' preferences for ways to obtain health information.

Prithiba G, Priya K et.al (2020) Diapers have been used for care of babies since decades to prevent soiling and for social convenient. Diaper dermatitis is the term used to describe an irritating condition that develops on the skin that is covered by a diaper, found during infancy, which causes discomfort to infants, anxiety to parents and caregiver and contributes load on the health care system.She conducted a cross-sectional one group pre-test and post-test research design. The sample consisted of 50 infant mothers having aninfant (0 to 1year).A purposive sampling was used for selecting the mothers. The demographic profile of the infant mothers was assessed through a structured interview. The existing knowledge, attitude and practices of infant mothers regarding management & prevention of diaper rashes was assessed with the help of a self-administered Questionnaire, a self-administered Opinionnaire and a self administered checklist respectively with the help of google forms. A Structured teaching programme on management and prevention of diaper rashes as implemented using ppt and video and then post-test was conducted after 7days. Result was revealed that the overall mean and standard deviation of knowledge, attitude and practice score of infant mothers in thepost-test was 19±3.01, 78.82±11.23 & 47.7±7.81 respectively which was found to be significantly higher than the pre-test knowledge, attitude and practice scores which was 13.92±2.92, 63.94±12.45& 37.7±9.02 respectively. Discussion: To reduce skin allergies to infants, mothers need to be equipped with good knowledge, appropriate attitude and good practice on management and prevention of diaper rashes. The present study attempted to explore the effectiveness of structured teaching programme on improving the knowledge, attitude and practice of infant mothers towards management and prevention of diaper rashes in selected villages at selected district, Tamil Nadu, India.

Abdul-Wahab Inusah, Gbeti Collins et.al (2022) diaper dermatitis is found to be the most common skin condition among children below 24 months. Though it is generally less fatal, it could elevate into a severely painful condition with possible bacterial and fungal infestation requiring a critical medical attention. He explained facility based cross sectional study design to assess knowledge on diaper dermatitis and diaper hygiene practices among mothers with infants aged 1-24 months attending the Child Welfare Clinic (CWC) at the Tamale West Hospital, Northern Region of Ghana from July to September 2021. Result was revealed that the only a few (23.5%) of the respondents had good knowledge on diaper management with 76.5% reporting poor knowledge. Mothers used baby powder (47.0%), zinc oxide that contained barrier cream baby oil (28.0%), Vaseline (16.0%), baby lotion (16.0%) to prevent diaper dermatitis. Employment status (p=0.011), attachment of diaper to babies (p=0.041), drying methods used after cleaning a child (p=0.039) and substance used to clean infants after bowel movement (p=0.011) were significantly associated with knowledge of diaper dermatitis. The study aimed at determining the knowledge of mothers with children in the diaper-wearing age on diaper dermatitis and related hygiene practice in a referral hospital in Northern Ghana. The findings of the current study showed that there is low knowledge of diaper management among mothers.

Haider Mohammed Majeed et.al (2023) An inflammatory response to the skin in the perineal and perianal areas is known as diaper dermatitis. It is the most typical skin condition that affects young infants. Although skin irritation is the most frequent cause, other conditions including atopic dermatitis and seborrheic dermatitis can also manifest as diaper rash. He conducted a non-probability purposive sample and used in a descriptive study. The study shows that more than half of the mothers with age group of 25-31 years are 51.1%. All of the mothers' resident in urban. According to level of education; the highest percentage of the mothers refers that 30% of them are diploma/bachelor's graduated. Regarding to the occupation of mothers; the highest percentage refers that 73.3 of them are unemployed. Around 47.8% of the family monthly income is 300,000-600,000. In addition, 76.7% of mothers were have information about diaper dermatitis and their source of information about 40.6%. This result is consistent with a study which found that 37.5% of the sample was between the ages of 26 and 30. Additionally, this outcome is consistent with study which indicated that 41.3% of the sample belonged to the 24- to 30-year-old age range. The current study's findings indicate that the majority of the sample had graduated with a diploma or a bachelor's degree in terms of education. These results go opposite that found the majority of the sample had completed high school.

SUMMARY

The review of relevant research and non-research literature is the focus of this chapter. To acquaint oneself with the knowledge of diaper dermatitis, a survey of the literature was conducted.

The reviews allow the researcher to determine that further research is necessary to create a theoretical foundation. to use research technique in order to create a tool, a data gathering process, and a data analysis strategy.

RESEARCH METHODOLOGY

This chapter deals with the methodology selected by the researcher to study the effectiveness of information booklet on knowledge regarding management and prevention of diaper dermatitis among mothers of infants admitted at selected hospital Sagar (M.P.). It comprises of research approach, research design, setting variables of the study, population, sample, sample size and criteria for sample selection, sampling technique, development and description of tool, scoring key, content validity, reliability of the tool, pilot study and methods of data collection & plan for statistical data analysis.

Kothari C. R. (2006), Research methodology is a method to solve the research problem systematically. It may be understood as a science of studying how research is carried on scientifically, and explains why a particular method or technique is used in the study.

RESEARCH APPROACH

A research method instructs the researcher on what data to gather and how to analyze it, claim Polit & Beck (2012). It is the overarching strategy or blueprint decided upon to conduct the research. It also implies the potential inference that may be made from the data.

The current study aims to produce and assess the efficacy of an information booklet in order to achieve the objectives. A quantitative technique was used as the study's research methodology. The quantitative method is thought to be the most effective technique for evaluating cause-and-effect hypotheses including relationship variables.

RESEARCH DESIGN

In order to test the research hypothesis, the researcher's overall strategy for finding answers to the research questions is known as the research design. It outlines the fundamental tactics the investigator must use to extract reliable and comprehensible information.

For this study, a pre-experimental one-group pre-test and post-test research strategy was chosen.The single group pre-test-post-test design is a very simple design that includes an interventional group without a control group. It falls under the pre-experimental design group.

The research design is a researcher's overarching strategy for finding answers to the research questions and testing the study hypothesis. It outlines the fundamental techniques the investigator must use to get data that is precise and comprehensible. An overarching plan for carrying out the study is the focus of a research design. It establishes the structure of the research, the timing of data collection, and the implementation of any necessary interventions.

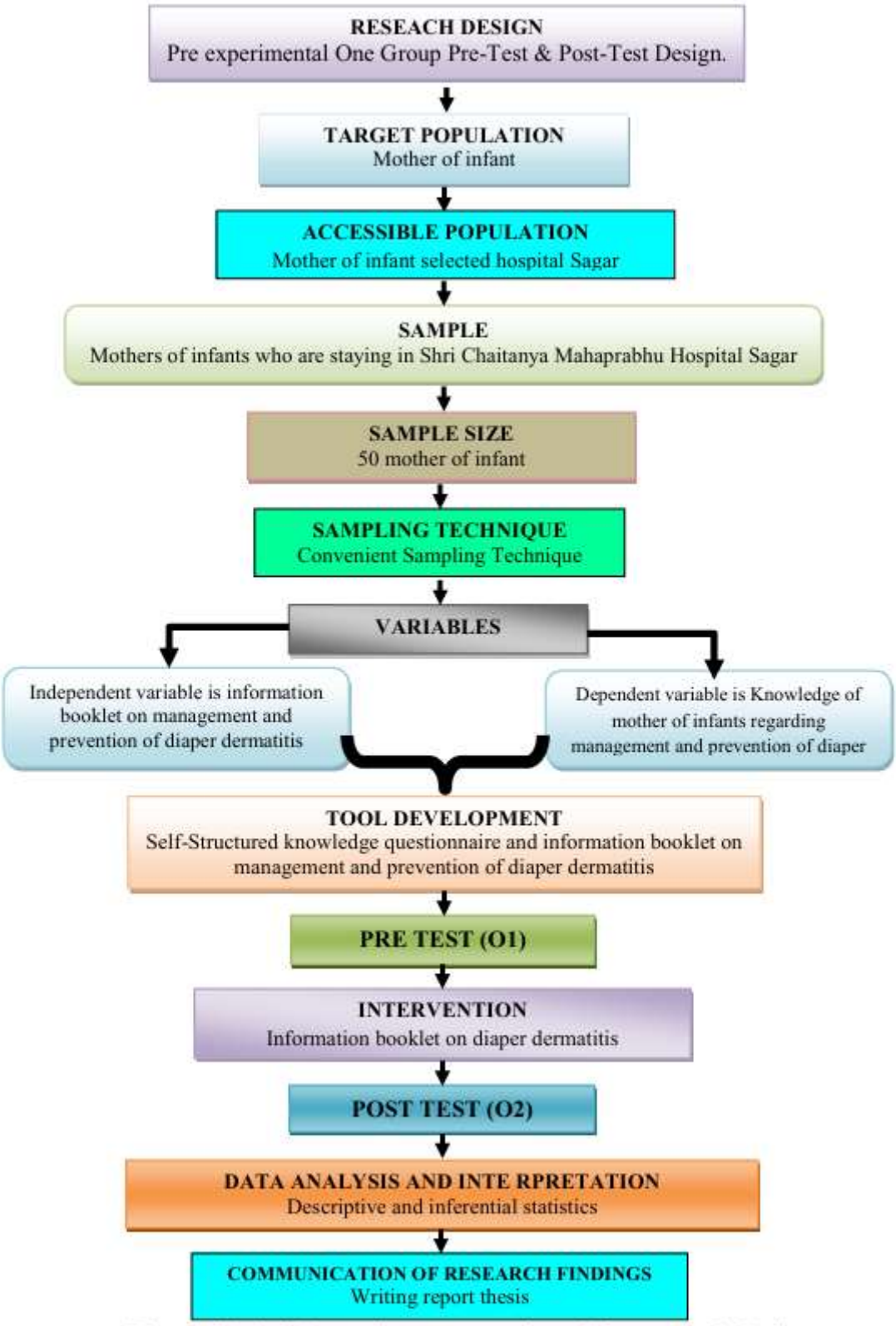


Figure-3.1.1: Schematic representation of the research design.

SETTING OF THE STUDY

According to Polit and Hungler (1999), settings are specific places where data collection occurs. The Physical location and condition in which the data collection takes place in the study is a setting. The researcher selected Shri Chaitanya Mahaprabhu Hospital Sagar M.P.... The investigator found the setting is appropriate for conducting the study because of the following reasons.

- Feasibility of obtaining adequate number of samples.
- Availability of samples from various socio-economic strata.
- The investigator was familiar with the hospital routines.
- Co-operation extended by the unit authority, staff member, other team members.

VARIABLES

A variable, according to **B. T. Basavanthappa (2000),** is a quantifiable or potentially measurable aspect of an object or quantity that may change in quality or quantity over time or even from one particular object to another. distinct item or even belonging to the same basic class.

Three types of variables are identified in this study. They are follows: -

Independent variable

Polit and Hungler (1999), it is the variable that has been presumed effect on the dependent variable. In this study the Independent variable is information booklet on management and prevention of diaper dermatitis.

Dependent variable

Polit and Hungler (1999), it is the presumed effect that varies with a change in the independent variable. In this study the dependent variable is Knowledge of mother of infants regarding management and prevention of diaper.

Extraneous variable

According to Kothari C. R. (2002), independent variable is not related to the purpose of the study, but may affect the dependent variable which is termed as extraneous variable. In this study socio demographic data is extraneous variable (age, religion, number of children, type of family, education, occupation, economic status, and previous experience of care of baby and sex of baby.)

POPULATION

Nancy Burn (2008), says that, population refers to a total category of persons or objects that meet the criteria for study established by the researcher.

In this study the population comprises of mothers of infant in Shri Chaitanya Mahaprabhu Hospital Sagar M.P..

Target population

Wood G.L. and Herber J. stated that it is the entire set of cases about which the researcher would like to make generalization.

In this study target population refers to all mothers of infant in Shri Chaitanya Mahaprabhu Hospital Sagar M.P.

Accessible population

Polit and Hunger (1999), an accessible population comprises cases from the target population that is accessible to the researcher as a pool of subjects.

In this study, accessible population refers to mothers of infant who are under the treatment of Shri Chaitanya Mahaprabhu Hospital Sagar M.P.

SAMPLE &- SAMPLE SIZE

Burns & Groove (2008), sample is a subset of the population that is selected for a particular study, and the members of the sample are the subjects.

In this presentation the samples are mothers of infant who are under the treatment of Shri Chaitanya Mahaprabhu Hospital Sagar (M.P.) who meets the inclusive criteria.

Pilot & Beck (2012), defined sample size is the number of people who participate in a study; on the basis of statistical conclusion through power analysis .

The sample size in the study is 50 mother of infant who are under the treatment of Shri Chaitanya Mahaprabhu Hospital Sagar M.P..

SAMPLING TECHNIQUE

Burns and Beck (2012), sampling is the process of selecting a portion of the population of the represent the entire population Convenient sampling technique was used.

Convenient sampling is a type of non probability sampling technique. Convenient sampling is based on subject are selected dui to their convenient accessibility and proximity to the researcher. The belief that a researcher's knowledge about the population can be used to pick the cases to be included in the sample.

CRITERIA FOR SAMPLE COLLECTION

The sample frame structured by researcher included the following criteria.

Inclusion criteria –

- Mothers who are willing to participate and have babies.
- Mothers whose infants are able to speak Hindi and English.
- At the time of data collection, mothers with newborns are available.
- Mothers whose babies haven't been exposed to comparable trials before.

Exclusion criteria –

- Mothers whose children are unwilling to take part.
- Mothers whose children are incapable of speaking Hindi or English.
- Mothers whose children have already been made aware of comparable research.

DEVELOPMENT AND TESTING OF TOOL

Polit & Hungler (1999), stated that the inset type of data collection instrument repaired depends upon the nature of the data to be gathered to answer the researcher questions.

Tools were developed to assess the effectiveness of information booklet on knowledge regarding management and prevention of diaper dermatitis among mothers of infants. These were developed after review of related literature and after taking opinions from experts**.**

The tools used in this study were:

- Self-structured knowledge questionnaire on diaper dermatitis management and prevention.
- Informational pamphlets about diaper dermatitis management and prevention.

In order to offer sufficient background for the tools' creation, a survey of the literature was used in their development.The investigator's own experience was also incorporated, and the investigator conferred with

pediatric nursing specialists based on the researcher compiled and arranged the items under the appropriate headings based on expert recommendations and an assessment of the literature.

Before creating the self-structured knowledge quiz on diaper dermatitis care and prevention, a blueprint was created.

Description of Tool

- Section-A: Demographic variables of mothers of infants.
- Section-B: Self structured knowledge questionnaire.

These are objective, multiple-choice questions with one right answer and three possible distractions. Each item is worth one point for a proper response and zero for an incorrect one.

Scoring System:

GRADE	SCORE
Good	21- 30
Average	11 -20
Poor	0-10

On the same day that information booklets were distributed, moms of infants in the chosen group were given a pre-test self-structured questionnaire. The post-test was completed on the seventh day using the same self-structured knowledge survey.

Development of information booklets:

Based on the researcher's own experience, professional discussions, and a review of theoretical and empirical literature, an information pamphlet was created. The knowledge test's general and particular points were provided.

The information booklets developed for enhancing knowledge regarding management and prevention diaper dermatitis among mothers of infants consisting on the following contents.

- What is diaper dermatitis?
- What does it mean?
- What are the causes of diaper dermatitis?
- Diaper dermatitis's clinical characteristics, care and prevention strategies, and nursing considerations .

CONTENT VALIDITY OF TOOLS

Polit and Hungler (1999), states that content validity is the degree to which the items are an instrument adequately represent the universal content.

Five experts were presented with a prepared tool that included the goals, problem description, hypothesis, operational definition, blueprint, and criterion check list. 90% of the specialists, five of whom were from the child health nursing department, concurred in everything, although some recommendations were made to change a few things. To determine if the information was suitable and relevant, the criterion checklist had two categories: "agree," "disagree," and "remarks/suggestions." Changes were made in response to expert opinions and recommendations.

RELIABILITY OF THE TOOL

According to **Wood and Harber (2002),** states that reliability of the research instrument is defined as the extent to which the instruments yield the same result on repeated measures. It is then concerned with consistency, accuracy, precision, stability, equivalency and homogeneity.

The split half approach was used in this study to establish dependability.

The structured knowledge questionnaire's reliability coefficient, r = 0.82, shows that the instrument is dependable.

PILOT STUDY

Polit and Hungler (1999), pilot study is a small scale version or trial run of the major study. Its function is to obtain information on improving the project or for assessing its feasibility by principle focus on the assessment of the adequacy of the measurement.

A pilot research was carried out in Sagar, Madhya Pradesh's Shri Chaitanya Mahaprabhu Hospital. Using a straightforward sample approach, six moms of babies with diaper dermatitis were chosen for care and prevention. Pre-interventional evaluation was completed, and more mothers of newborns received assistance for the prevention and control of diaper dermatitis. A post-interventional examination was conducted seven days later, and the results were statistically assessed.

The pilot research's results showed that the study could be carried out. The investigator had to deal with several issues pertaining to a distinct space for interventions.

METHOD OF DATA COLLECTION

After receiving previous approval from the director of Shri Chaitanya Mahaprabhu Hospital in Sagar, M.P., the data collection procedure started on April 20, 2022, and ended on May 22, 2024. I gave them a brief introduction and explained the purpose of the study to guarantee better collaboration throughout the data collection process. I individually spoke with each participant, outlining the goal of the research and how it will benefit them.

1. After receiving approval from the relevant authorities, the data collection process was conducted.
2. Approval by the bodies that oversee research activity
3. The pilot study received ethical clearance from the relevant authorities, and the full study was carried out following research committee permission.
4. Mothers of newborns gave their spoken permission.
5. Data from moms of newborns will be gathered using a structured knowledge questionnaire.
6. The data gathering instrument will be ready and validated by professionals.
7. A pilot research was carried out prior to the primary trial.
8. A pre-test was administered to moms of newborns who met the requirements.
9. The structured knowledge was used to gather the sociodemographic data. survey.
10. Information packets will be used to gauge their level of knowledge, and a systematic knowledge questionnaire was used to gauge their subject-matter expertise.
11. Each mother had to spend ten to fifteen minutes finishing the pre-test before they could access the information booklets for participation.
12. The investigator will notify you of the post-test date and time following the pre-test.
13. After ten days after receiving the information booklets, a post-test evaluation will be conducted.

14. The trial will last for four weeks.

PLAN FOR DATA ANALYSIS

The methodical arrangement and synthesis of research data, as well as the use of such data to evaluate the research hypothesis, constitute data analysis. The collected data will be objectively analyzed using both descriptive inferential statistics and the following methodology.

Descriptive Statistics:

1) To compile the demographic data, the investigator created a master data sheet that included characteristics of a chosen sample and would be analyzed using the frequency and percentage distribution.
2) The pre- and post-intervention mean and standard deviation were calculated.
3) Following consultation with the statistician, a descriptive and inferential statistical approach was employed.
4) Tables and diagrams are used to collect and display data.
5) The T-test is being used to determine how mothers of babies' knowledge differed before and after the intervention.
6) To determine the relationship between pre-interventional knowledge and the chosen demographic factors, chi-square is utilized.

ETHICAL CONSIDERATION

The investigation was carried out with formal consent from the director of Shri Chaitanya Mahaprabhu Hospital in Sagar, Madhya Pradesh.The moms of the infants received a detailed explanation of the study's methodology and goals. The study would be advantageous to the participants received in-service training on managing and preventing diaper dermatitis. Neither the samples nor the hospital's working environment would be harmed by the action. Each sample would be given a code to ensure confidentiality.

SUMMARY

The general strategy of the study challenge was systematically and scientifically exposed by the research approach. The study's methodology was described in this chapter. It comprises the study's methodology, designs, variables, and environment. population, sample, sampling strategy, tool creation, tool description, content validity, data collecting process, and analytic plan.

DATA ANALYSIS AND INTERPRETATION

The analysis and interpretation of data gathered to evaluate the efficacy of an information booklet on care and prevention of diaper dermatitis among mothers of newborns admitted to certain hospitals are the focus of this chapter Sagar (M.P.)

Polit and Hungler (2008), data analysis is the systemic organization and synthesis of research using those data.

The goal of statistical analysis is to simplify data so that it can be understood and interpreted, allowing for the study of the relationships between the research topic and hypothesis testing. For hypothesis testing, analyzing, and interpreting Descriptive and inferential statistics were used to collect data in accordance with the study's predefined goals.

The process of statistically analyzing data entails converting information gathered throughout a research project into easily understood, descriptive language and making deductions from it using a variety of statistical techniques, such as mean and standard deviation.
In order to evaluate the impact of information booklets on knowledge regarding diaper management and prevention, this chapter analyzes and interprets data gathered from 50 mothers of infants at Shri Chaitanya Mahaprabhu Hospital in Sagar, Madhya Pradesh. dermatitis in nursing moms. Both descriptive and inferential statistics were used in the data analysis.

OBJECTIVE OF THE STUDY:

- Evaluate the pre-test level of knowledge among mothers of newborns about the prevention and treatment of diaper dermatitis.
- Deliver the informational pamphlet on managerial knowledge and prevention of baby mothers' diaper dermatitis.
- Determine the post-test level of knowledge among mothers of newborns about the prevention and treatment of diaper dermatitis.
- Determine if there is a significant difference between the pre-test and post-test levels of knowledge on managing and preventing diaper dermatitis in newborns and the demographic characteristics that were chosen.
- Pre-test level of knowledge about diaper dermatitis prevention and management among mothers of infants with specific demographic factors.

HYPOTHESES

- **H1:** At the < 0.05 level of significance, there is a significant mean difference between the newborn mother's pre-test and post-test knowledge scores about managing and preventing diaper dermatitis.
- **H2:** At the < 0.05 level of significance, there is a significant correlation between the pre-test knowledge score of mothers on the management and prevention of diaper dermatitis and their demographic characteristics.

ORGANIZATION OF FINDINGS

After the data was gathered, it was scored. The results of the pre-test and post-test were tabulated, and the demographic variables were coded and examined. The mean, standard deviation, "t" test, and chi square test were the statistical techniques employed for the analysis.
This chapter is discussed under the following headings:

- **Section-I:** The distribution of demographic variables by frequency and percentage.
- **Section-II:** Distribution of the pre-test knowledge score in terms of frequency and percentage.
- **Section-III:** Distribution of the post-test knowledge score in terms of frequency and percentage.
- **Section-IV:** Comparison of the knowledge scores before and after the test.
- **Section-V:** Correlation between premenopausal women's pre-test knowledge scores and the demographic characteristics they chose.

SECTION- A
DESCRIPTION OF DEMOGRAPHIC VARIABLES OF THE MOTHER OF INFANT

Table-4.1: Frequency & percentage distribution of demographic variables n=50

S No.	Demographic variables	Particular	Frequency (f)	Percentage (%)
1.	Age in year	20 to 25 Years	12	24
		26 to 30 Years	18	36
		31 to 35 Years	07	14
		Above 35 year	13	26
2	Occupations	Private job	18	36
		Government job	19	38
		Daily wages	08	16
		House wife	05	10
3.	Education status	Non formal education	27	54
		Primary education	10	20
		Secondary education	07	14
		Graduate and above	06	12
4.	Income in rupees per month	Rs 5000 – 10,000	07	14
		Rs 1,0001 – 15,000	18	36
		Rs 15,001 – 20,000	13	26
		Above Rs 20,000	12	24
5	Type of family	Joint family	14	28
		Nuclear family	20	40
		Extended family	06	12
		Broken family	10	20
6	Religious	Hindu	20	40
		Muslim	12	24
		Christian	8	16
		Others	10	20
7	Previous knowledge	Mass media	14	28
		Television	10	20
		News paper	18	36
		Social media	8	16

The frequency and percentage distribution of the sample group subjects' demographic data, which were collected to evaluate the usefulness of information booklets on diaper dermatitis care and prevention.

- The frequency and percentage distribution of mothers of infants by age group shows that the greatest frequency and percentage of mothers of infants between the ages of 26 and 30 were 18 (36%) and 13 (26%), respectively. Child over the age of 35, 12 (24%) of the mother of the child between the ages of 20 and 25, and 7 (14%) of the mother of the child between the ages of 31 and 35 Years.
- The majority of the family's occupations in the survey were 19 (38%) government employees, 18 (36%) private employees, 8 (16%) daily wage employees, and 5 (10%) housewives.
- In the research, 27 (54%) mothers of infants finished their non-formal education, 10 (20%) attended elementary school, 7 (14%) attended secondary school, and only 6 (12%) graduated because the

mother of an infant can arise or worsen as a result of ignorance and ignorance, and it was also essential to determine the educational level before putting any information booklets into place.

- The majority of mothers of infants had monthly incomes between Rs 1,0001 and Rs 15,000 for 18 (36%) of them, between Rs 15,001 and Rs 20,000 for 13 (26%), over Rs 20,000 for 12 (24%), and below Rs 14% for 7 (14%). Between Rs 5000 and Rs 10,000. Mothers of infants appear to be found in all socioeconomic classes.
- Six (12%) have an extended family, ten (20%) have a fractured family, fourteen (28%) have a joint family, and a maximum of twenty (40%) have a nuclear family. The majority of baby mothers are part of a combined family. It could be due to the fact that most newborn mothers were part of a mixed family.
- In terms of religion, 20 (40%) of the infant's mothers were Hindu. Since the majority of the mothers of infants in Hindu families are Muslim, 12 (24%) were Muslim, 8 (16%) were Christian, and 14 (28%) were of other religions.
- The majority of mothers with children aged 18 (36%) and 14 (28%) had access to newspapers and mass media, respectively. Eight (16%) had social media, and ten (20%) had television. because some research has indicated a strong correlation between diaper dermatitis and newspapers.

The majority of mothers of young children admit that they know very little about diaper dermatitis. It might be inferred that the organization does not have adequate resources for information on diaper dermatitis.

Table -4.1.1: Frequency percentage showing percentage distribution of age in mothers of Infants **n = 50**

S. No.	Demographic Variable	Particular	Frequency (F)	Percentage (%)
1	Age in year	20 to 25 Years	12	24%
		26 to 30 Years	18	36%
		31 to 35 Years	07	14%
		Above 35 year	13	26%
			50	**100**

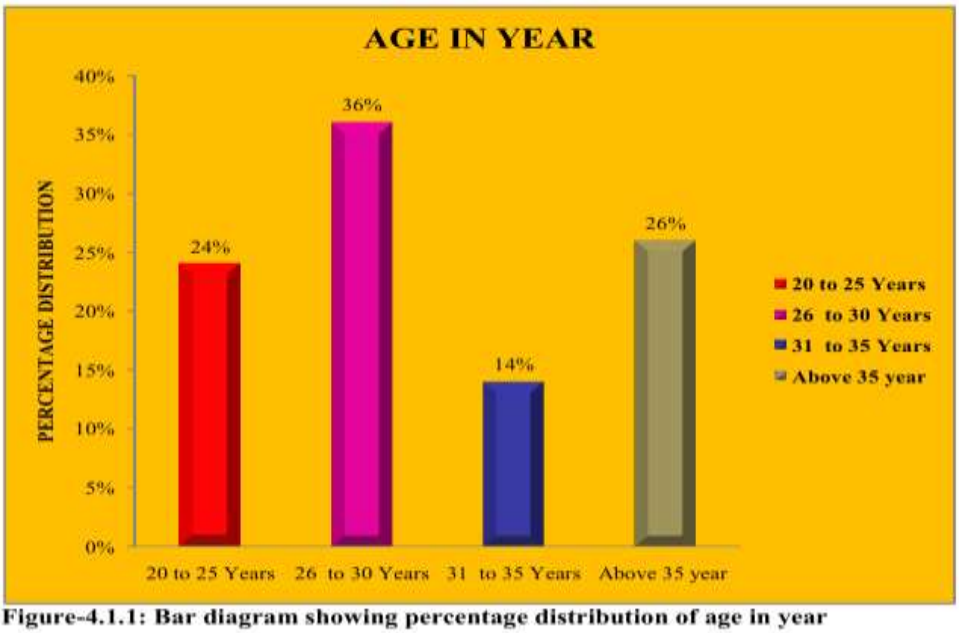


Figure-4.1.1: Bar diagram showing percentage distribution of age in year

The percentage distribution of ages in the 26–30 age range, as shown in the bar graphic, was 13 (26 A bar graph displaying the age distribution as a proportion of the year newborn's mother between the ages of 26 and 26; infant between the ages of 20 and 25; and infant over 35 A bar diagram displaying the percentage distribution of ages in year 18 (36%) showed that 13 (26%) of the mothers of infants between the age groups over 35, 12 (24%) of the mothers of infants aged 25 years, and 7 (14%) of the mothers of infants between the ages of 31 and 35.

Table -4.1.2: Frequency percentage showing percentage distribution of occupations

n = 50

S. No.	Demographic Variable	Particular	Frequency (F)	Percentage (%)
2	**Occupations**	Private job	18	36
		Government job	19	38
		Daily wages	08	16
		House wife	05	10
			50	**100**

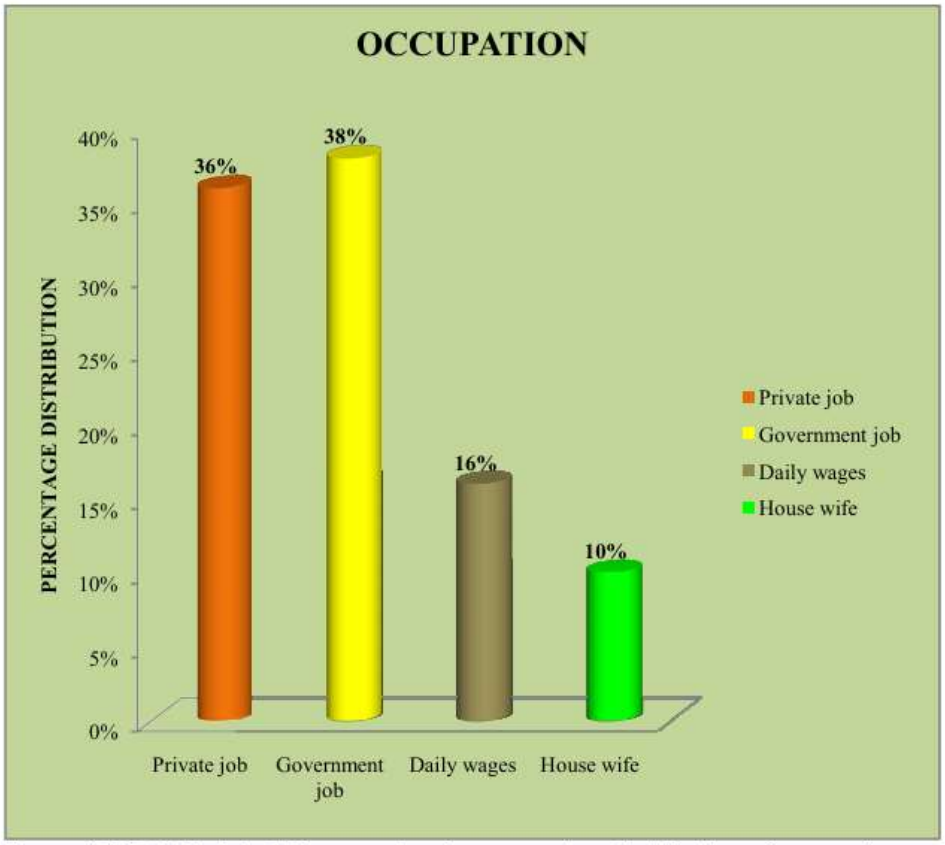


Figure-4.1.2: Cylindrical diagram showing percentage distribution of occupation

Cylindrical diagram showing percentage distribution of Occupation of family 19 (38%) was belonged to government job, 18 (36%) belonged to private job, 8 (16 %) belonging to daily wages and, 5 (10 %) belonging to house wife

Table -4.1.3: Frequency percentage showing percentage distribution of educational status **n = 50**

S. No.	Demographic Variable	Particular	Frequency (F)	Percentage (%)
3	**Education status**	Non formal education	27	54
		Primary education	10	20
		Secondary education	07	14
		Graduate and above	06	12
			50	**100**

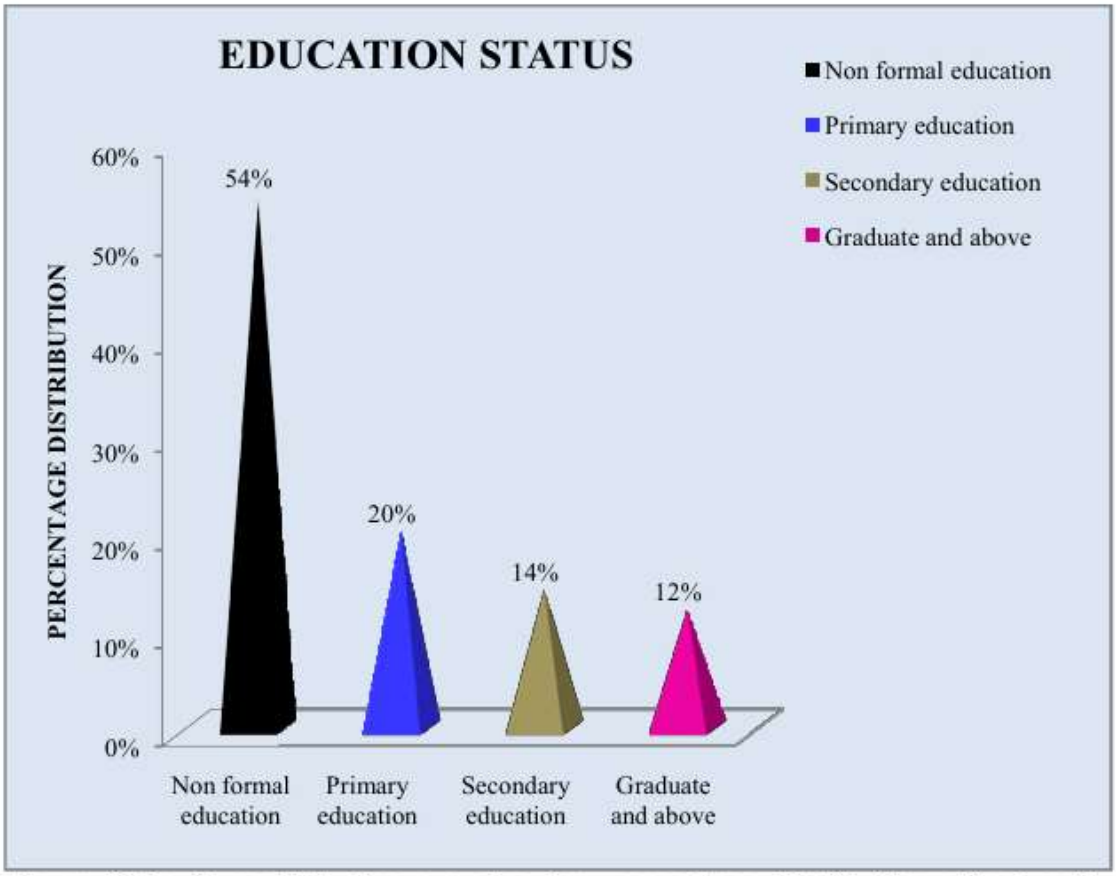


Figure-4.1.3: Pyramidal diagram showing percentage distribution of education status

Pyramid diagram showing percentage distribution of education status 27 (54%) mother of infant completed studied non formal education, were 10 (20%) was studied at the primary education , whereas 7 (14 %) mother of infant were secondary education , And only 6 (12%) was graduate

Table -4.1.4: Frequency percentage showing percentage distribution of family income **n = 50**

S. No.	Demographic Variable	Particular	Frequency (F)	Percentage (%)
4	Family income	Rs 5000 – 10,000	07	14
		Rs 1,0001 – 15,000	18	36
		Rs 15,001 – 20,000	13	26
		Above Rs 20,000	12	24
			50	**100**

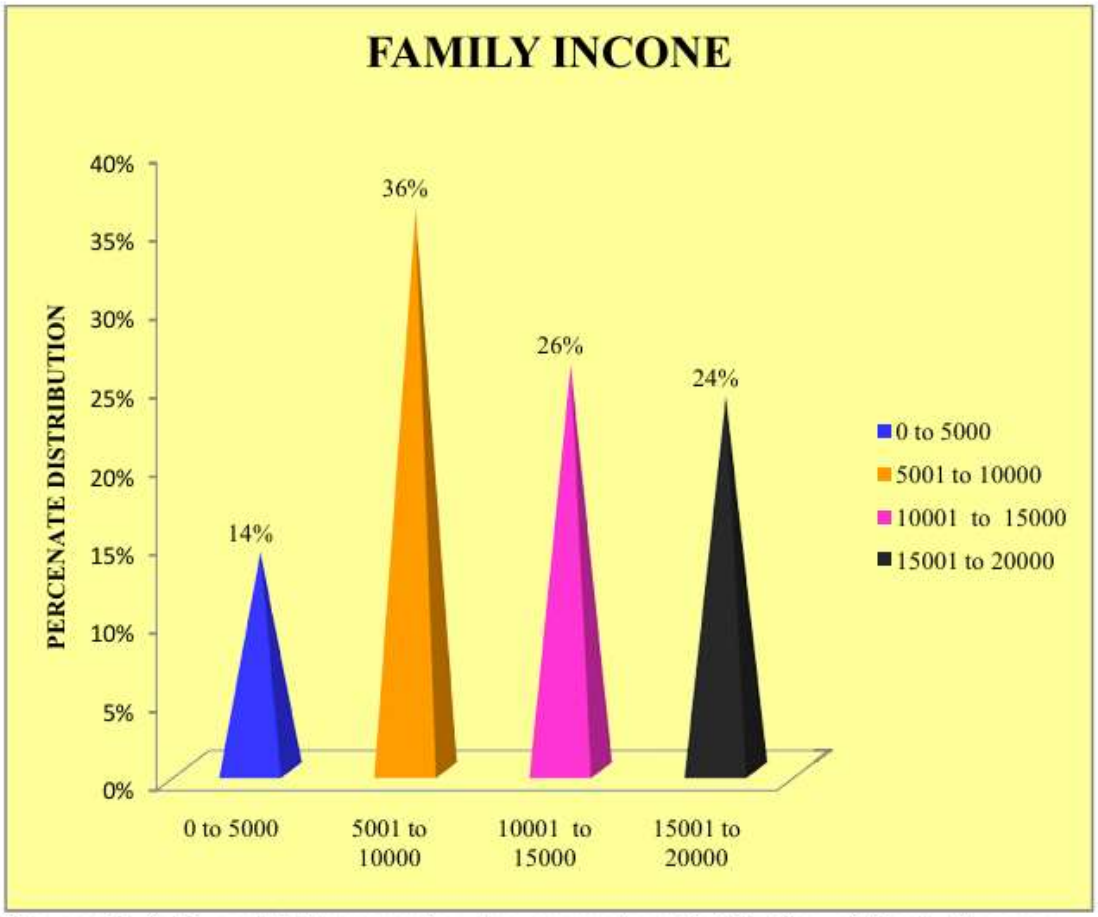


Figure-4.1.4: Pyramid diagram showing percentage distribution of family income

Pyramid diagram showing percentage distribution of family income 18 (36%) selected within monthly income Rs 1,0001 – 15,000, 13 (26 %) had income between Rs 15,001 – 20,000 per month, 12 (24%) had income within the range of Above Rs 20,000 and 7 (14 %) monthly income was Rs 5000 – 10,000

Table -4.1.5: Frequency percentage showing percentage distribution of type of family **n = 50**

S. No.	Demographic Variable	Particular	Frequency (F)	Percentage (%)
5	Type of family	Joint family	14	28
		Nuclear family	20	40
		Extended family	06	12
		Broken family	10	20
			50	**100**

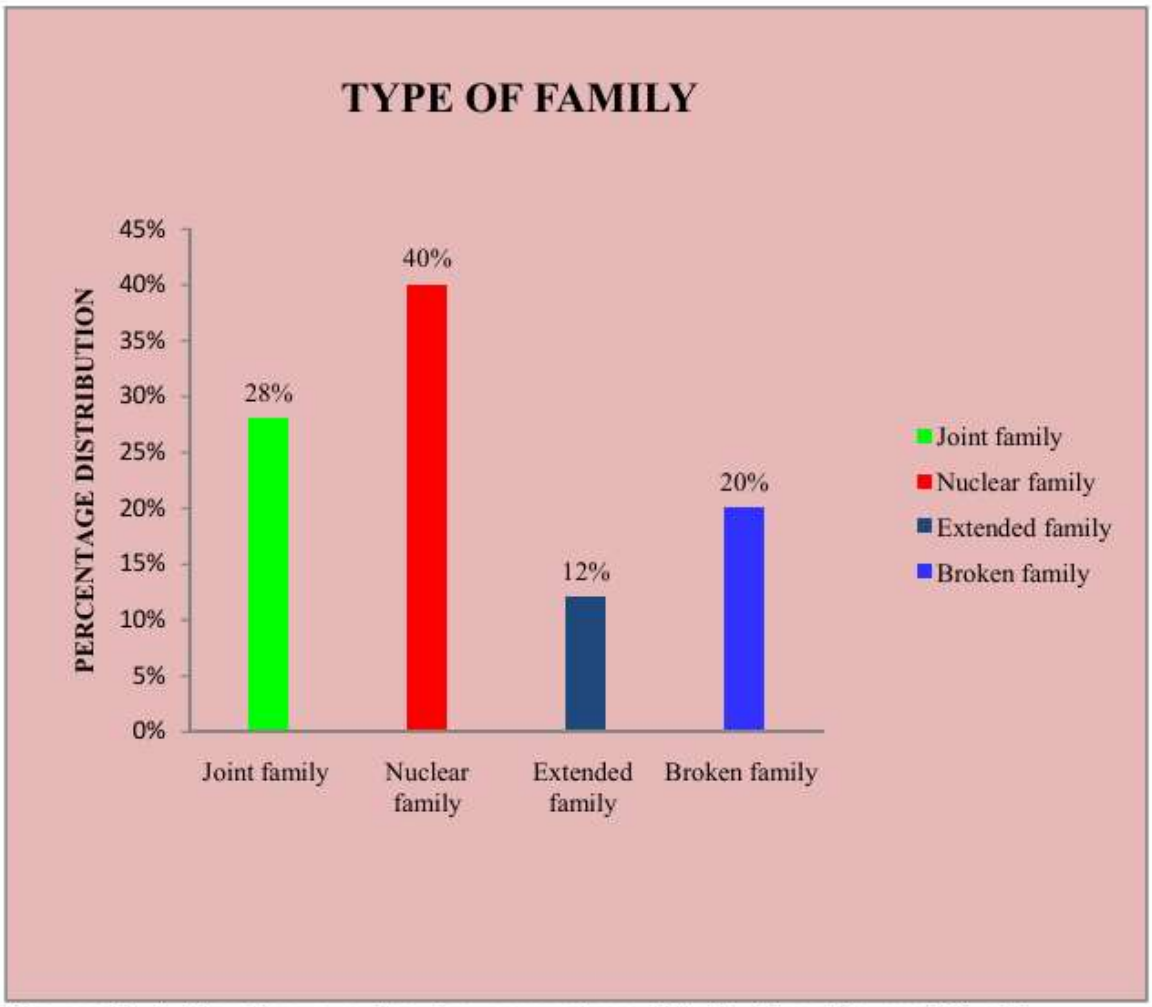


Figure-4.1.5: Bar diagram showing percentage distribution of type of family

Bar diagram showing percentage distribution of 20 (40%) have nuclear family, 14 (28 %) joint family have, 10 (20 %) have broken family and 6 (12%) have extended family

Table -4.1.6: Frequency percentage showing percentage distribution of religious

n = 50

S. No.	Demographic Variable	Particular	Frequency (F)	Percentage (%)
6	**Religious**	Hindu	20	40
		Muslim	12	24
		Christian	8	16
		Others	10	20
			50	**100**

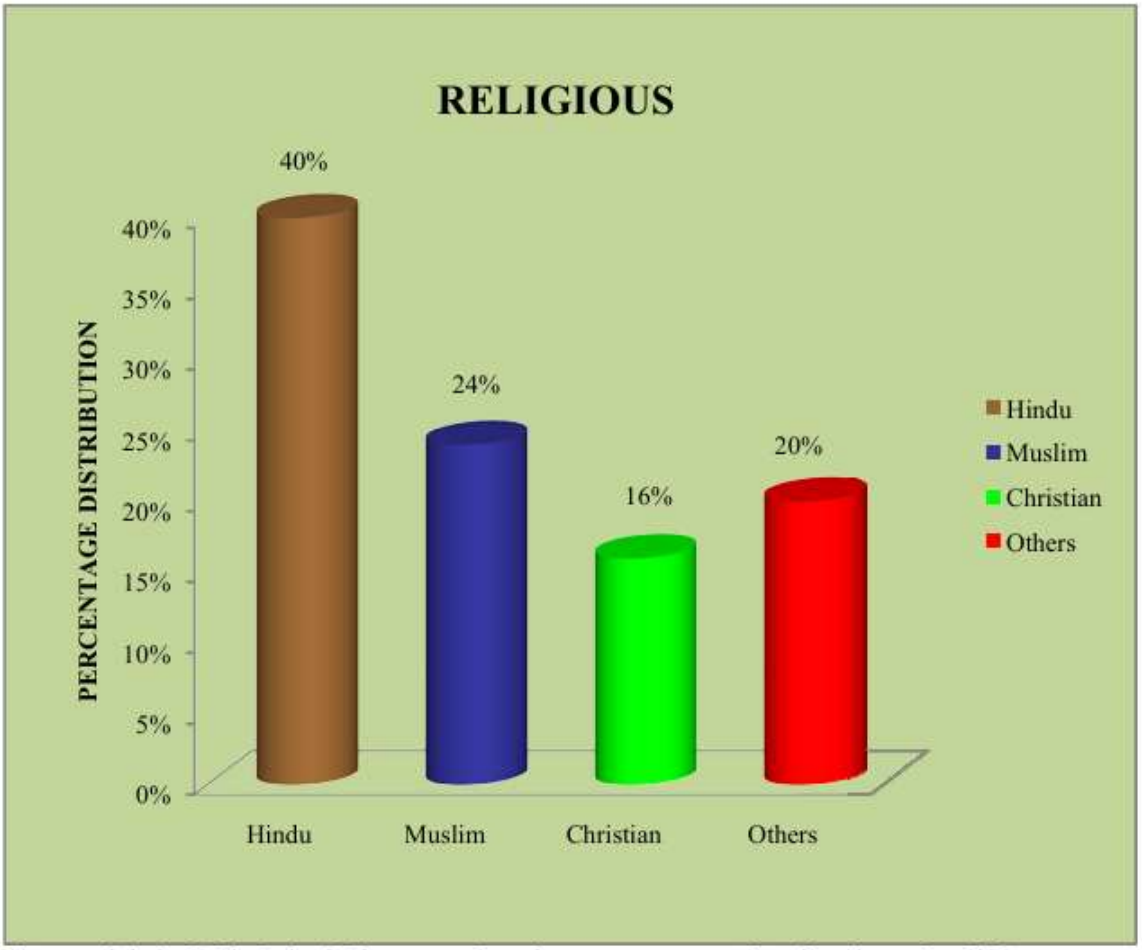


Figure-4.1.6: Cylindrical diagram showing percentage distribution of religious

Cylindrical diagram showing percentage distribution of mother of infant 20 (40 %) were Hindu 12 (24 %) were Muslim, 8 (16 %) are Christian and 14 (28 %) other religious because most of the mother of infant in Hindu family

Table -4.1.7: Frequency percentage showing percentage distribution of previous knowledge **n = 50**

S. No.	Demographic Variable	Particular	Frequency (F)	Percentage (%)
7	**Previous knowledge**	Mass media	14	28
		Television	10	20
		News paper	18	36
		Social media	8	16
			50	**100**

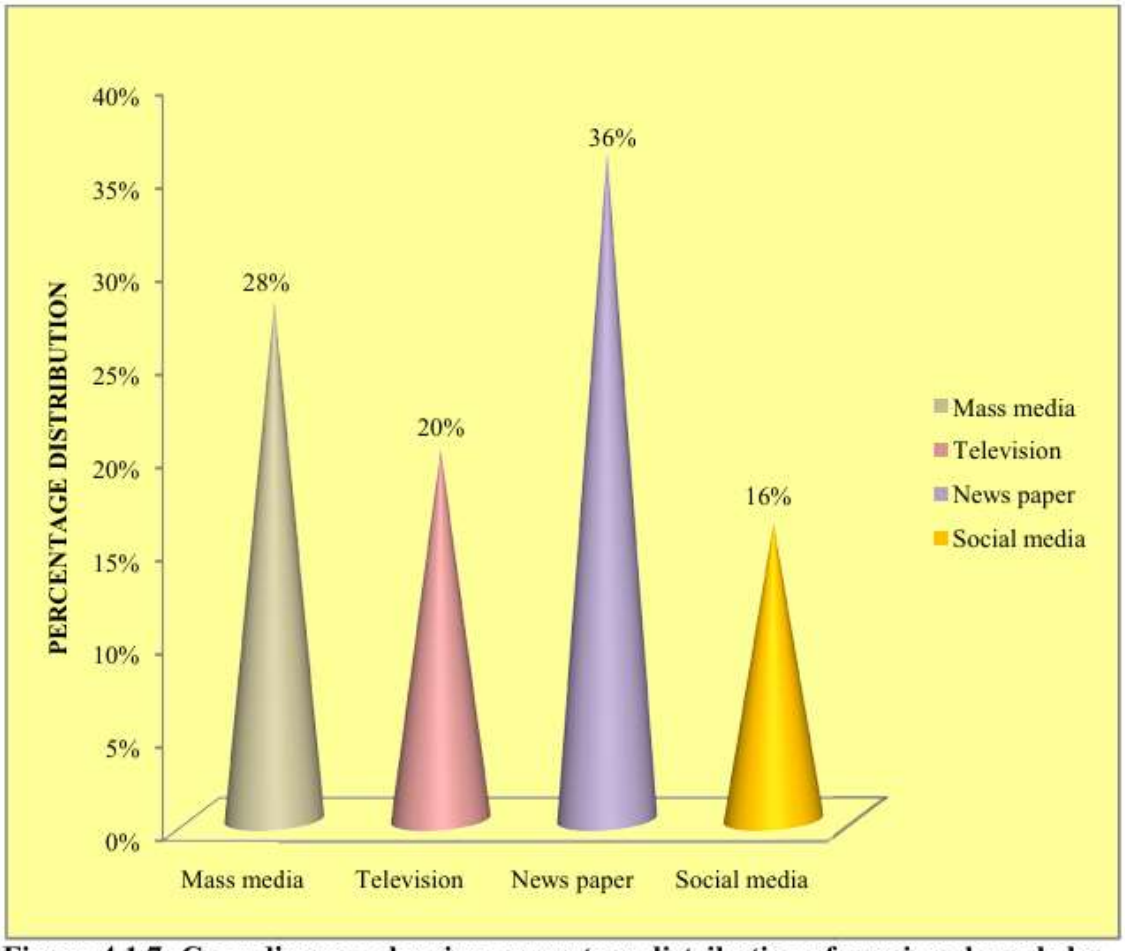


Figure-4.1.7: Cone diagram showing percentage distribution of previous knowledge

Cone diagram showing percentage distribution of previous knowledge 18 (36 %) had news paper, 14 (28 %) had Mass Media 10 (20 %) had television and 8 (16 %) had social media.

SECTION – B

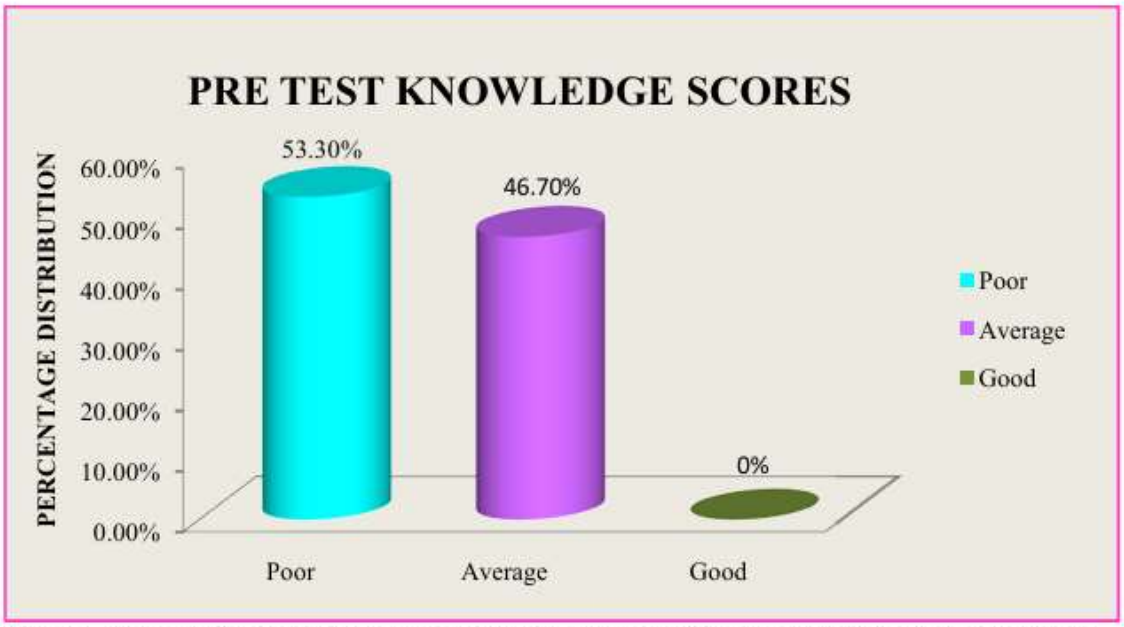
ASSESSMENT OF PRE TEST KNOWLEDGE SCORE OF MOTHERS OF INFANTS REGARDING MANAGEMENT AND PREVENTION OF DIAPER DERMATITIS

Table-4.2.1: Frequency and Percentage distribution of the Pre-test knowledge score.

n=50

Score	Grading	PRE – TEST		Means	SD
		Frequency (f)	Percentage (%)		
Poor	0 – 10	31	62	10	3.98
Average	11 -20	19	38		
Good	21 -30	0	0		

This table show that Majority of mother of infant regarding management and prevention of diaper dermatitis 31 (62%) had poor knowledge 19 (38 %) had average knowledge 0(0%) had good knowledge. the mean value in the pre test scores of the mothers of infants was 10 and standard deviation was 3.98



Figure–4.2.1: Cylindrical diagram show the percentage of pre test knowledge level

Cylindrical diagram show the percentage of pre test knowledge level 31 (62%) mother of infants had poor knowledge 19 (38 %) had average knowledge 0(0%) had good knowledge

SECTION – C

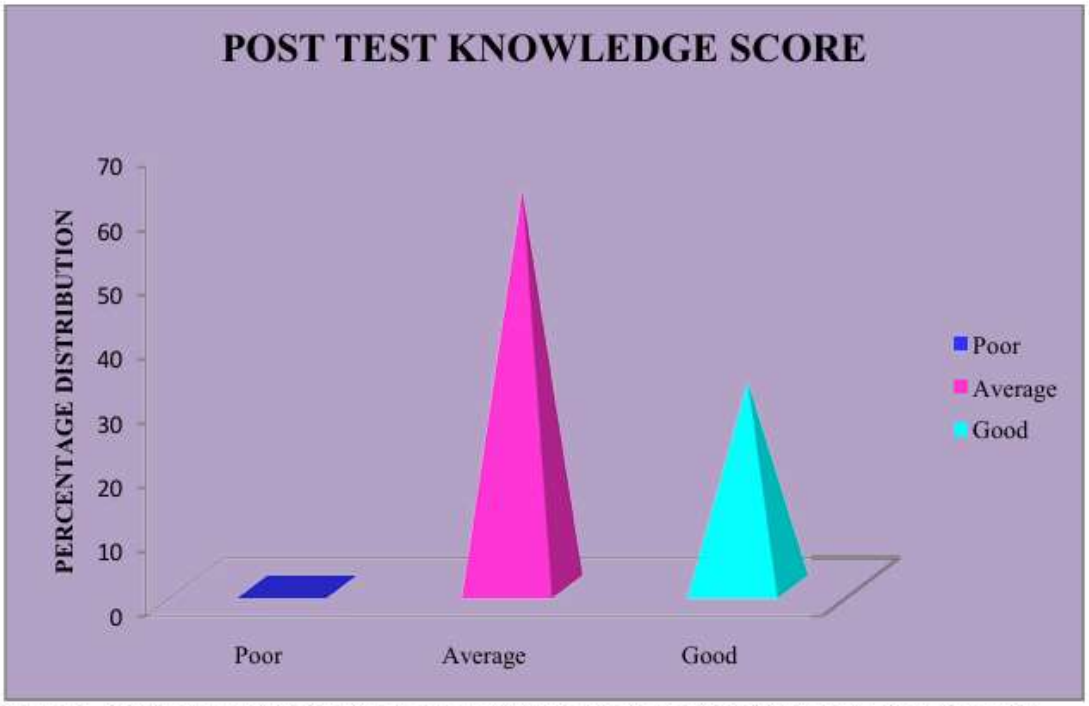
ASSESSMENT OF POST TEST KNOWLEDGE SCORE OF MOTHERS OF INFANTS REGARDING MANAGEMENT AND PREVENTION OF DIAPER DERMATITIS

Table-4.2: Frequency and Percentage distribution of the Post -test knowledge score.

n=50

Score	Grading	POST – TEST		Means	SD
		Frequency (f)	Percentage (%)		
Poor	0 – 10	00	00	17.1	4.48
Average	11 -20	34	68		
Good	21 -30	16	32		

This table show that 00 (00%) mother of infants had poor knowledge 34(68 %) had average knowledge 16(32%) had good knowledge. the mean value in the post test scores of the mother of infants was 17.1 and standard deviation was 4.48



Figure–4.3.1: Pyramid diagram show the percentage of post test knowledge level

Pyramid diagram show the percentage of pre test knowledge level 00 (00%) mother of infants had poor knowledge 34 (68 %) had average knowledge 16 (32%) had good knowledge.

SECTION – D

CAMPARISON BATWEEN THE PRE AND POST TEST KNOWLEDGE SCORE OF MOTHERS OF INFANTS REGARDING MANAGEMENT AND PREVENTION OF DIAPER DERMATITIS

Table-4.4.1: Comparison between pre- and post-test knowledge score **n = 50**

Group	Mean	Mean difference	Mean Percentage (%)	Standard deviation (SD)	df	't' value
Pre-test	10	7.1	36.9	3.98	49	17.31*
Post-test	17.1		63.1	4.48		

't' table value = 2.45 P ≤0.05

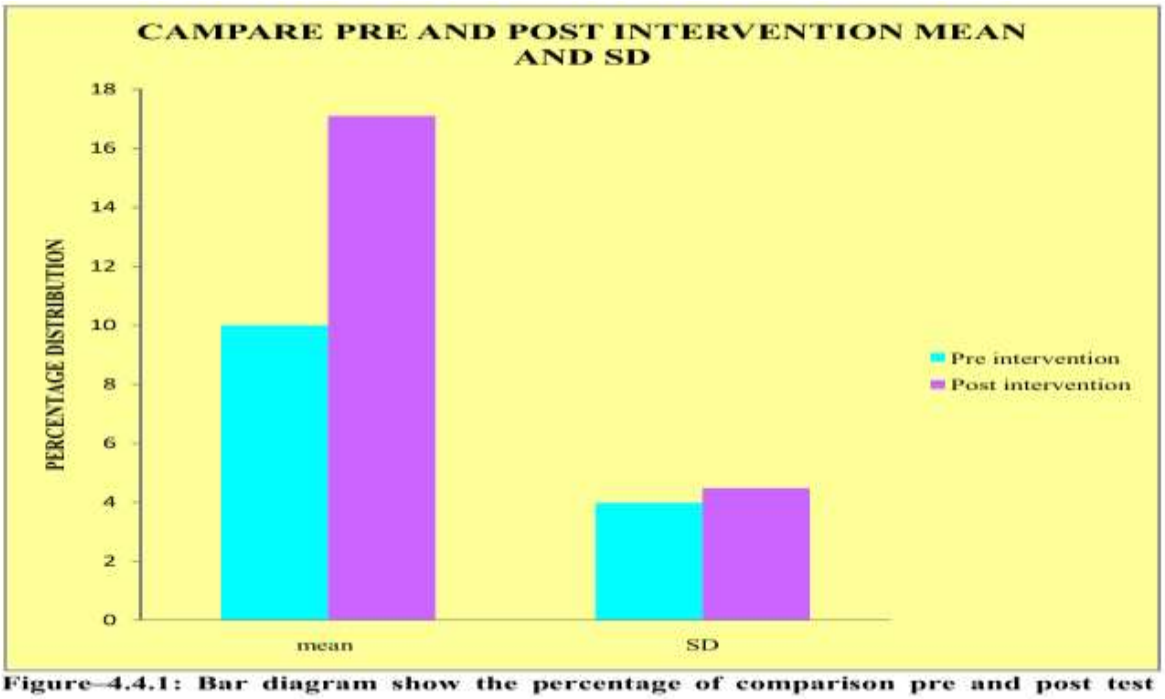
According to Table 4.4.1, 31 (62%) of the mothers of newborns had inadequate knowledge in the mean pre-test. 19 people (38%) have mediocre knowledge. 0% were well-informed. and the babies' post-intervention 00(00%) mother lacked adequate knowledge 32 (68%) had mediocre 16 (32%) of the participants exhibited good knowledge.

Table 4.4.1 shows that 31 (62%) of the new moms' mean pre-test scores were insufficient. Nineteen individuals (38%) possess average knowledge. None were knowledgeable. and the post-intervention 00(00%) mother of the babies did not know enough 32 people (68%) had average Of the participants, 16 (32%) demonstrated good knowledge.

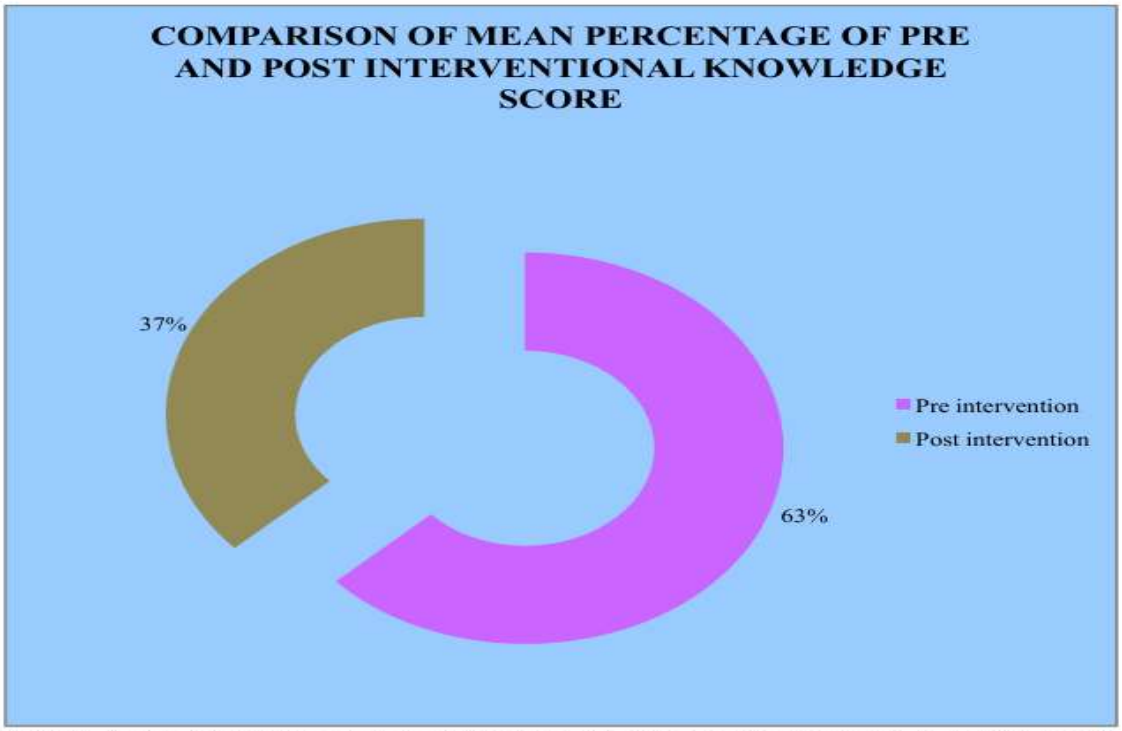
The mean post-test knowledge score (63.1%) appears to be greater than the mean pre-test knowledge score (36.9%), according to the table.improvement implies percentage (26.2%) for knowledge scores before and after the intervention, with a t'value of 17.31 at <p 0.05.

Therefore, it is recognized that the hypothesis H1, which states that the mean post-test knowledge score among mothers of newborns is considerably greater than the mean pre-test knowledge score, is correct.

The percentage of comparison between the mean and SD pre-interventional knowledge level (10) and post-interventional knowledge score (17.1) is displayed in a bar diagram. The post-test score (17.1) seems to be greater than the mean, which is represented by the SD of pre-intervention 3.98 and post-intervention 4.38.



Figure–4.4.1: Bar diagram show the percentage of comparison pre and post test knowledge level of mean and SD



Figure–4.4.2: Doughnut diagram show the percentage of comparison pre and post test knowledge level of mean percentage

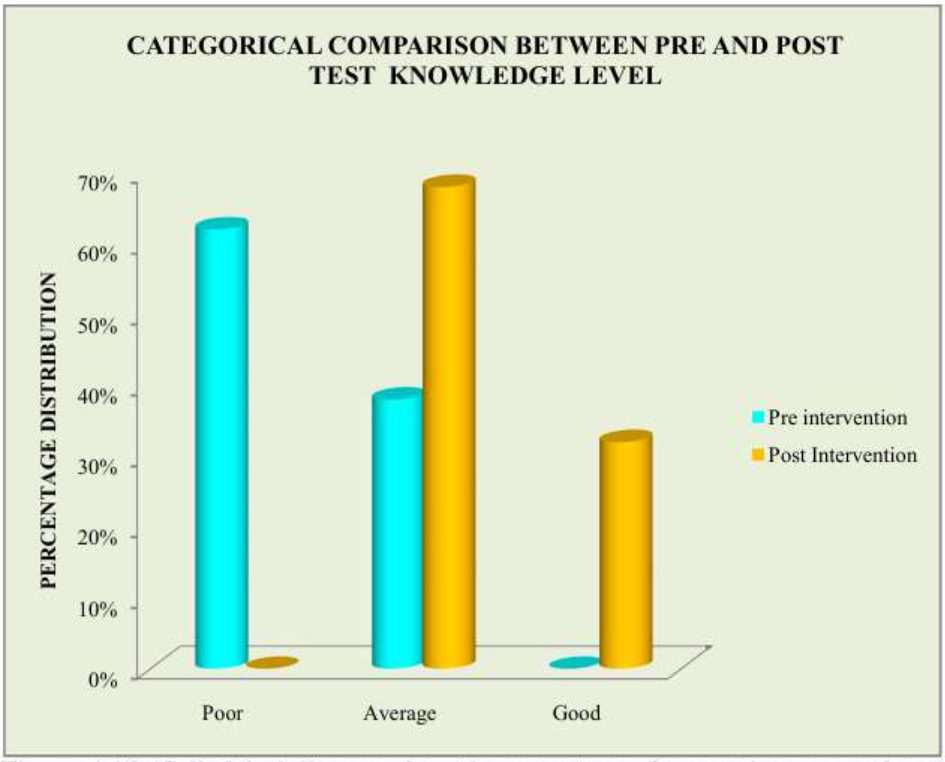
The doughnut diagram indicates that the mean percentage of knowledge level before and after the test (63.1%) was ostensibly higher than the mean knowledge level before the intervention (36.9%).

Table-4.4.3: Categorical comparison between pre and post-intervention level of knowledge score regarding diaper dermatitis **n=50**

Score	Grading	Pre-intervention		Post-intervention	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
0 – 10	Poor	31	62	00	00
11 – 20	Average	19	38	34	68
21 – 20	Good	0	0	16	32

This table shows that the majority of mothers of babies with diaper dermatitis had inadequate knowledge on the pre-test (before to the distribution of information booklets), with 31 (62%). 19 people (38%) have mediocre knowledge. 0% were well-informed.

Mothers of babies exhibited inadequate knowledge on the post-test (after the distribution of information booklets) and the post-intervention 00 (00%). 16 (32%) had high knowledge, while 32 (68%) had ordinary knowledge. Nearly all mothers of babies with diaper dermatitis profited from the SIM addressing diaper dermatitis, according to a comparison of pre and post test knowledge scores.



Figure–4.4.3: Cylindrical diagram show the percentage of comparison pre and post test knowledge level

The proportion of comparison knowledge level 31 (62%) is displayed in a cylindrical form.

A cylindrical figure displays the comparative percentage.

Level of expertise 31 (62%). The infant's mother knew very little. Good knowledge was had by 0 (0%) out of 19 (38).Publications), as well as the following intervention. The proportion of comparison before and after the test is displayed in a cylindrical graphic.

The infant's mother knew very little. After the material was given, 19 (38%) of the mothers of newborns had average understanding, while the remaining % had high knowledge.

knowledge 0 (0%) have excellent knowledge. Mother knowledge 32 (68%) had average knowledge on the post-test (after information administration and the post-intervention 00 (00%)). 16(32) knowledge 32 people (68%) have mediocre knowledge. 16 (32%) had good kn.

SECTION - V

ASSOCIATION OF PRE-TEST LEVEL OF KNOWLEDGE OF MOTHERS OF INFANTS IN THEIR SELECTED DEMOGRAPHIC VARIABLES

Table-4.5.1: Chi square value showing association of pre test level of knowledge scores with their selected demographic variable. **n = 50**

Demographic variables	Pre-test level of knowledge			Chi score χ^2	df	Tabulated value	Inferences
	Poor	Average	Good				
AGE IN YEAR							
20 to 25 Years	10	2	0	20*	6	12.59	S
26 to 30 Years	9	9	0				
31 to 35 Years	0	7	0				
Above 35 year	12	1	0				
OCCUPATIONS							
Private job	12	6	0	4.82	6	12.59	NS
Government job	10	9	0				
Daily wages	7	1	0				
House wife	2	3	0				
EDUCATIONAL STATUS							
Non formal education	17	10	0	8.4	6	12.59	NS
Primary education	8	2	0				
Secondary education	6	1	0				
Graduate & above	0	6	0				
FAMILY INCOME							
Rs 5000 – 10,000	7	0	0	18.9*	6	12.59	S
Rs 1,0001 - 15,000	16	2	0				
Rs 15,001 – 20,000	6	7	0				
Above Rs 20,000	2	10	0				

Demographic variables	Pre-test level of knowledge			Chi score χ^2	df	Tabulated value	Inferences
	Poor	Average	Good				
TYPES OF FAMILY							
Joint family	10	4	0	**6.7**	**6**	**12.59**	**NS**
Nuclear family	10	10	0				
Extended family	2	4	0				
Broken family	9	1	0				
RELIGIOUS							
Hindu	12	8	0	7.8	6	12.59	**NS**
Muslim	6	6	0				
Christian	5	3	0				
Others	5	5	0				
PREVIOUS KNOWLEDGE							
Mass media	8	6	0	14.7*	6	12.59	**S**
Friends	10	0	0				
Family	12	6	0				
Health profession	1	7	0				

Designation: * indicates significant at the level of 0.05.

df (9) 20.00, P ≤0.05,
df (9) 18.09, P ≤0.05,
df (9) 14.74, P ≤0.05

The calculated Chi-Square values of certain demographic features that demonstrate a relationship between pre-test knowledge and their chosen demographic variable are displayed in Table 4.5.1.
Age in year, family income (in rupees), and prior knowledge were found to be significant at the 0.05 level, while the demographic factors of diaper dermatitis among mothers of infants—family types, education level, and occupation of the family—were found to have no association with the pre-test knowledge. This indicates that certain demographic factors are the independent variables with respect to the dependent pre-test knowledge.
As a result, the study hypothesis H2, which claims that there is a significant correlation between pre-test knowledge and certain demographic factors related to diaper dermatitis in mothers of newborns at the significance level of 0.05, is accepted.

SUMMARY

The study's analysis and interpretation are covered in this chapter. Inferential and descriptive statistics were used to summarize the collected data. The data analysis has been categorized and shown under a number of headings, including socio characteristics pertaining to the demographics of mothers of newborns; evaluate the impact of the informational booklets on mothers' awareness of diaper dermatitis at a chosen hospital sagar. The study's main conclusions demonstrate that information booklets significantly increased mothers of newborns at a chosen hospital in Sagar's understanding of diaper dermatitis.

CHAPTER – V
DISCUSSION SUMMARY, CONCLUSION, IMPLICATIONS RECOMMENDATIONS AND LIMITATIONS

The goal of the current study was to assess how well mothers of newborns understood the management and prevention of diaper dermatitis after reading an information booklet. To accomplish the study's goals, a single group pre-test and post-test design was used. implementing an evaluation methodology. Samples were chosen using a suitable non-probability sampling approach. 50 mothers of newborns participated in the study, which was carried out at the Shri Chaitanya Mahaprabhu Hospital in Sagar, Madhya Pradesh. Data was gathered using a structured knowledge questionnaire both before and after the information booklet was distributed**.**

DISCUSSION

The findings of the study have been discussed with reference to the objectives, hypotheses and with findings of other studies.

Findings related to characteristics of demographic variables

The demographic variables of mothers of newborns are examined in the study according to their age, level of education, occupation, family income, religion, and prior experience.

Considering that 41.7% of mothers with infants between the ages of 25 and In the 26–30 age group, there were 17 (28.3%) mothers of infants between the ages of 20 and 25, 10 (16.7%) mothers of infants between the ages of 31 and 35, and 8 (13.3%) mothers of infants between the ages of 35 and older.

Regarding the majority of occupations, 27 (45%) were daily wage workers, 13 (21.7%) were private sector employees, 12 (20%) were government employees, and 8 (13.3%) were housewives.

According to studies, the majority of mothers of infants had the following educational statuses: 25 (41.7%) had completed secondary education, 14 (23.3%) had attended non-formal school, 12 (20%) had completed primary education, and only 9 (15%) had graduated.

Regarding family income, 26 (43.3%) were chosen to have monthly incomes between Rs 5000 and Rs 10,000, 18 (30%) had monthly incomes between Rs 15,001 and Rs 20,000, 8 (13.3%) had monthly incomes between Rs 1,0001 and Rs 15,000, and beyond Rs 20,000.

A maximum of 24 (40%) have a nuclear family, 18 (30%) have a joint family, 12 (20%) have a fractured family, and 6 (10%) have an extended family.

Studies show that most moms of babies have the following levels of education: Just nine (15%) had graduated, compared to 25 (41.7%) who had finished secondary school, 14 (23.3%) who had attended non-formal school, and 12 (20%) who had finished primary school.

In terms of household income, 26 people (43.3%) were selected to earn between Rs 5000 and Rs 10,000 per month. Eight (13.3%) earned between Rs 1,0001 and Rs 15,000 per month, and more than Rs 20,000 per month, while 18 (30%) earned between Rs 15,001 and Rs 20,000 per month.

Twelve (20%) have a broken family, six (10%) have an extended family, twenty-four (40%) have a nuclear family, and eighteen (30%) have a joint family.

To assess the pre test level o knowledge regarding management and prevention of diaper dermatitis among mothers of infants.

When it came to managing and preventing diaper dermatitis, the majority of moms had inadequate understanding between 0 and 10, whereas 19 (31.7%) had average knowledge between 11 and 20. None of them knew anything between 21 and 30.

This demonstrates that moms of newborns are ignorant of every facet of diaper dermatitis. Researchers in the following studies found that moms of newborns were ignorant of diaper dermatitis, which is comparable to the carried out a research to determine how well planned instruction on preventing diaper dermatitis among new moms worked. This study used a non-probability convenience sampling strategy to pick 100 samples (100 moms) from a rural community using a one group pre-test-post-test design. A non-probability convenience sample of one hundred participants was recruited from the study population, which was collected from a particular rural location in the Wardha district.

According to the results of the assessment of mothers' knowledge following the intervention, 75 (75%) had "Excellent Knowledge," 25 (25%) had "Good Knowledge," and no one had "average" or "poor" knowledge. Mothers' knowledge scores did not significantly correlate with demographic factors such such as the mother's age, education, family type, number of children, work, family income, information source, and religion.

To assess the post test level of knowledge regarding management and prevention of diaper dermatitis among mothers of infants

Regarding the treatment and prevention of diaper dermatitis, the majority of mothers had average knowledge between the ages of 11 and 20, whereas 10 (16.7%) had high knowledge between those ages. None of them scored poorly on a scale of 0 to 10.

This demonstrates that moms of newborns are ignorant of every facet of diaper dermatitis. Researchers in the following studies found that moms of newborns were ignorant of diaper dermatitis, which is comparable to the this study aims to assess the efficacy of a structured education program on diaper dermatitis prevention among mothers of infants aged 6 to 12 months at Sree Balaji Medical College and Hospital in Chennai. Pre-experimental one-group pre-test post-test design and an evaluative research strategy were employed as the study methodology. The study's sample was chosen using a non-randomized purposive sampling approach. A total of thirty women with newborns made up the study sample. According to the study's findings, the mean, standard deviation, and paired "t" test value of knowledge about diaper dermatitis were compared before and after the test. The preliminary exam The resultant t value of 16.70 is statistically significant at 0.00l, and the knowledge score is 11.83 and the post-test score is 23.87. Given that the mean difference is 12.04, it is expected that moms of newborns are significantly more successful when following a systematic education program.

To determine whether there is a significant difference between the mothers of infants' pre- and post-test levels of knowledge on managing and preventing diaper dermatitis

According to the mean pre-test, 31 (62%) mothers of newborns knew very little. 19 people (38%) have mediocre knowledge. 0% were well-informed. and the infant's post-intervention 00(00%) mother knew very little 32 people (68%) have mediocre knowledge. 16 (32%) had good understanding.

The data in the above table indicates that the estimated t-value of 17.31 is greater than the table value of t < 0.05, 49=2.45, and that the mean post-test score (17.1) appears to be higher than the mean pre-interventional knowledge (10). Therefore, there is important disparity between the test results before and after. This suggests that some informational pamphlets are useful for raising baby mothers' awareness. The mean post-test knowledge score (63.1%) appears to be greater than the mean pre-test knowledge score (36.9%), according to the table.improvement implies percentage (26.2%) for knowledge scores before and after the intervention, with a t'value of 17.31 at.

Therefore, it is recognized that the hypothesis H1, which states that the mean post-test knowledge score among mothers of newborns is considerably greater than the mean pre-test knowledge score, is correct.

The study, which involved 42 women with infants ages 0 to 1, was carried out at Kasturba Hospital in Manipal, Karnataka, India. Purposive sampling was used to choose the samples. Initially, the mothers were given a structured questionnaire to complete in order to gauge their level of knowledge and practice on the management and prevention of diaper dermatitis.

A posttest was conducted eight days after awareness programs were administered on the second day, and it revealed a substantial increase in knowledge ($t=13.813$, $p=0.02$), attitude ($t=8.34$, $p=0.01$), and practice ($t=11.32$, $p=0.01$). The results of the investigation revealed. The moms of newborns benefited from the awareness program in terms of improved knowledge, attitudes, and practices about diaper dermatitis care and prevention. Age in year, family income (in rupees), and prior knowledge were found to be significant at the 0.05 level, while the demographic factors of diaper dermatitis among mothers of infants—family types, education level, and occupation of the family—were found to have no association with the pre-test knowledge.

This indicates that certain demographic factors are independent of the dependent pre-test knowledge. Thus, the study hypothesis H2, which asserts that there is a substantial correlation between pre-test knowledge and certain demographic factors related to diaper dermatitis in baby moms at the 0.05 level of significance.

SUMMARY

Objective of the Study:

- To determine the moms of babies' pre-test level of knowledge about diaper dermatitis prevention and care.
- To evaluate the post-test level of management and prevention knowledge of diaper dermatitis in nursing moms.
- To determine if there is a significant difference between the mothers of babies' pre- and post-test levels of knowledge on managing and preventing diaper dermatitis and their chosen demographic characteristics.
- To correlate certain demographic factors with the pre-test level of knowledge among mothers of newborns on the treatment and prevention of diaper dermatitis.

Hypotheses of the study:

H1: At the < 0.05 level of significance, there is a significant mean difference between the pre-test and post-test knowledge scores of mothers of infants on the management and prevention of diaper dermatitis.

H2: At the 0.05 level of significance, there is a significant correlation between the pre-test knowledge score of mothers of infants on the management and prevention of diaper dermatitis and their demographic characteristics.

The study's objective was to assess the usefulness of pamphlets providing information about diaper dermatitis to new moms. The study used the assumption that moms of young children don't know enough about diaper dermatitis, and that informational pamphlets may help mothers of babies. Information booklets served as the study's independent variable, and mothers' knowledge of infants served as its dependent variable.

The researcher created the conceptual framework for this study using Imogene King's Goal Attainment Model (1989). One group pre-test, post-test (O1 X O2) design was employed as part of an evaluation

strategy. Mothers made up the study's population. of babies in Sagar's Shri Chaitanya Hospital. Fifty samples were chosen using the convenience sampling approach.

The researcher created a 30-item structured knowledge questionnaire to assess mothers' understanding of the information booklets both before and after they were distributed. The tool's and the information booklets' content validity was determined by providing Three nurse educators, two pediatricians, and a biostatistician were involved. Ten moms of newborns were given the tool as part of the pre-testing process. Karl Pearson's correlation coefficient was used to determine the structured knowledge questionnaire's reliability, and it came out to be 0.82. Six moms of newborns participated in the study, which used a non-probability convenient sampling strategy. Following the pilot research, the tool and instruction booklets remained unchanged.

Fifty moms of infants are subjects in the primary research. The trial lasted for four weeks in total. A systematic interview schedule was used to collect the data. Oral consent or authorization was obtained, and the matter's secrecy was guaranteed. Approximately four to five mothers of infants were questioned each day, with each participant receiving 45 minutes of time.

Major findings of the study were

- The highest possible number of moms with infants Twenty-five (41.7%) of the moms with children aged 26 to 30 years.
- The percentage of 50 moms with babies 25 (41.7%) of the infant's moms finished studied, secondary schooling.
- The vast majority of moms with 27 babies (45%) were employed on a daily basis.
- The majority of moms with 26 babies (43.3%) were chosen based on their monthly income of $10,000. Forty percent of women with 24 babies come from a nuclear household.
- The majority of moms with 46 (76.7%) children were Hindu. Of all the moms of newborns, 30 (50%) had access to the mass media as their primary information source.

The average post-test knowledge (16.3) is greater than the average pre-test knowledge (9.5), and the post-test knowledge standard deviation (SD ± 3.03) is lower than the pre-test knowledge standard deviation (SD ± 2.10), indicating that mothers' knowledge of about the treatment and avoidance of diaper dermatitis following informational pamphlets Compared to the mean pre-test knowledge (9.5), the mean post-test knowledge (16.3) is greater. Pre-test knowledge and post-test knowledge differ by an average of 24.8. The calculated "t" value of 14.78 (2.00, P<0.05df;49) indicates that the knowledge before and after the test differs significantly. This suggests that a specific nurse-led intervention is successful in raising newborn mothers' awareness of diaper dermatitis care and prevention.

With a "t" value of 14.78 at the P,0.05 level of significance, the improved mean percentage (26.4%) for pre and post test knowledge is reportedly larger than the mean post test knowledge (63.2%), which is 36.8%. It indicates that there is an improvement of knowledge demonstrating the information booklet's efficacy Therefore, the hypothesis H1, which states that mothers of babies have substantially greater post-test knowledge on managing and preventing diaper dermatitis than they had pre-test knowledge at the 0.05 level of significance, is accepted.

Overall, it was a fulfilling experience to do this study. The mother of the infants' participation and the guide's ongoing support and direction helped the study be completed successfully. The study's findings

indicate that there is a significant Diaper dermatitis education is necessary for the medical staff. Additionally, the study showed that information booklets are a useful teaching tool.

CONCLUSION

The purpose of this study is to evaluate the mother's understanding of diaper dermatitis in infants. The results of the investigation led to the following deductions: In the pre-test, the majority of the participants scored poorly on the knowledge section. The average knowledge score after the test was much more than the average pre-test knowledge score following the distribution of information pamphlets. According to the pre-test results, moms of newborns lacked sufficient understanding about diaper dermatitis. The information pamphlets turned out to be a successful teaching tool for imparting knowledge. The fact that the post-test score demonstrated an improvement in knowledge across all learning domains following the distribution of information booklets was much welcomed, encouraging, and fulfilling.

IMPLICATIONS

Nursing education, nursing practice, nursing administration, and nursing research are all impacted by the current study's conclusions. According to the study's findings, mothers of young children know very little about diaper dermatitis.The usefulness of the created information pamphlets might serve as an example for staff and student nurses.

Nursing education - The nursing curriculum should be designed to equip aspiring nurses to help clients and the community in many healthcare-related ways. Diaper dermatitis should be covered in the nursing curriculum. Education is possible for student nurses. in order to treat degenerative illnesses by educating the public about diaper dermatitis. To teach nursing students during their training periods, the nursing curriculum should cover the creation and use of various information pamphlets, etc.

Nursing practice- Future assistance will be provided by nursing students who are knowledgeable with diaper dermatitis. Clinical nurses are able to provide information on diaper dermatitis. Health education is one of the most economical methods of public education on a number of topics. To keep the public informed, the nurse should take the initiative to organize conferences, seminars, and health education. The current study demonstrated how successful information booklets are as a teaching tool. To educate the public about diaper dermatitis, nurses should take on the role of facilitators.

Nursing administration - To increase awareness both within and outside the hospital, the nurse administrator should carry out the outreach program to educate the public about diaper dermatitis. Staff members' in-service training on diapers Dermatitis research should be done to keep up with the latest findings and aid in public education. They ought to arrange and create programs that are economical. The program should be carried out with the administrative assistance and health education materials that are required. Enough money should be allocated to create health education resources and make them available to all hospital and community professionals.

Nursing research - The state of the nursing profession and the healthcare system should be known to nurse researchers. By carrying out studies and creating new ideas, researchers may raise midwives' position and standards of nursing by improving their knowledge, abilities, and attitudes. Future nurses can raise public knowledge of diaper dermatitis through this study. The results can also be used to investigate the efficacy of informational pamphlets covering different nursing topics. Because they provide healthcare at every stage of life, from conception to death, nurses and midwives must be able to communicate with participants about alternative treatments and share research material.

RECOMMENDATIONS

On the basis of the findings of the study, the following recommendations have been made for further study:

- Diaper rashes can be evaluated by a descriptive study.
- To find out how people feel about diaper rashes, a descriptive research can be conducted.
- The huge sample size allows for a comparable research to be conducted.

LIMITATIONS

- There were only 50 samples available for the investigation.
- Because there were fewer samples, the study design could only include one group for the pre-test and post-test.

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