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Research Article

Analysis of knowledge in relation to prevention and management of scabies under five years of age

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Abstract

Prolonged skin-to-skin contact is necessary to allow the transmission of the causative mite. **Aim:** To assess the knowledge in relation to prevention and management of scabies among mothers of under five years of aged children, before and after planned teaching programme. And to find out the association between post test knowledge in relation to prevention and management of scabies and selected demographic variables. **Methods:** A quasi experimental design were conducted for about 50 samples of mothers of children under five years of age by non probability convenient sampling technique, from pediatric medical ward of M G M Hospital, Kalamboli. M.G.M. Hospital. Data collection tool comprises of first demographic data of the sample second, consists of knowledge of mother's children under five years of age, regarding prevention and management of scabies. The reliability of the tool was established using test retest method and analyzed using Karl Pearson's correlation coefficient formula. **Results:** 38% of mothers were belonging to less than 25 years and 36% of mothers were in 26 -30 years age group, 38% had primary education 90% of them were Hindus and 96% were unemployed From that 58% were from nuclear family, 50% had one under five children in the family 18% had a history of scabies among family members. **Conclusion:** During pre test 46% of sample had average knowledge in relation to prevention and management of scabies and 38% of sample had poor knowledge while during post test majority (58%) were in excellent and 34% of got very good score.

Key words: Prevention, management, scabies, intervention programme.

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1. Introduction

Children are the gift of God as per doctrines and it is the parent's responsibility to mould the child into a carved form. Moreover, this responsibility leads to a close emotional bond between parent and baby which help to nurture a healthy and happy child. Even the Jesuit mantra of 'give me the child until he is seven and I will show you the man' refers to the belief that people's behavior and thought patterns are shaped during the first seven years of childhood [1]. The moment a baby is born, a mother is also born .She never existed before the birth of a baby [2]. The quality of relationship between a mother and child is such that any input to mothers will help to improve a child's health physically, mentally, socially and spiritually.

Childhood period is one of the most vulnerable age group, as they are prone to develop diseases because of that they need special care. It is a vital period because of the so called socialization process that is transmission of attitudes, customs, and behaviors In addition of course they are vulnerable to disease death and disability owing to their age, sex, place of living, socio economic status and most of their variables [3].As the accurate understanding of causes, transmission, and prevention of disease can 1) empower community and individual actions; and 2) contribute significantly to the impact of hygiene interventions. Therefore, it may be imperative to integrate health teaching into nursing [4].

In preventing diseases health teaching plays a major role. It has a great influence on the

prevention of illness, maintenance of health and management of diseases. Health education involves transmitting in formations at the child and family's level of understanding [5].

Primary care taker or a care giver refers to the parent who has greatest responsibility for the daily care and rearing of a child. It also refers to a person who has had the greatest responsibility for the daily care and rearing of child [6]. As Aristotle said "those who educate children well are more to be honored than they who produce them for these only gave them life, those art of living well [7]. The mother as a main care giver has a more important role than the father in bringing up children [8].Mother is the first teacher of a child, the qualities of a mother influences the bringing up pattern of child.

In order to prevent the morbidity rate among the under five children mothers should have knowledge about the prevention of disease. The diseases can be classified as infectious diseases and non-infectious diseases. The different kinds of infectious diseases are bacterial, fungal, parasitic and viral [9]. The main parasitic infection which affects children are scabies and pediculosis [10]. The common infectious disease of childhood disease is still serious in developing countries [11].

More than 111 million children are believed to have scabies, tinea, or both [12]. These skin disorders cannot be differentiated by ethnicity or socioeconomic status but, in high-prevalence areas, poverty and overcrowded living conditions are important underlying social determinants.
As India races towards achieving towards super powerdom, its children are still far behind in terms of health care, education and other facilities. Children are faced with malnourishment, infant mortality, morbidity etc [13]. The most prevalent skin disease among Indian children is scabies [14].

Every child in the world matters, the land mark convention on the rights of the child ratified by almost all governments states that children around the world have right to a safe environment [15].In India nearly 40% of population is composed of children and adolescent. It is tragic that the highest levels of mortality and morbidity occur in this age group [16]. Most of deaths in developing countries like India, result from infections and parasitic diseases [17].

Statement of the problem

Effect of planned teaching programme on knowledge in relation to prevention and management of scabies among mothers of under five children in a selected hospital.

Hypotheses

H1: There is no difference in the knowledge in relation to prevention and management of scabies among mothers of under five children before and after planned teaching programme.

H2: There is no association between post test knowledge in relation to prevention and management of scabies and selected demographic variables among mothers of under five children

Aim

To assess the knowledge in relation to prevention and management of scabies among mothers of children under five years age, before and after planned teaching programme.
To find out the association between post test knowledge in relation to prevention and management of scabies and selected demographic variables among mothers of under five children.

2. Materials and methods

A quasi experimental design were conducted for about 50 samples of mothers of children under five years of age by non probability convenient sampling technique, from paediatric medical ward of M G M Hospital, Kalamboli. M.G.M. Hospital. Data collection tool comprises of first demographic data of the sample Second, consists of knowledge of mother's children under five years of age, regarding prevention and management of

scabies.. The reliability of the tool was established using test retest method and analyzed using Karl Pearson's correlation coefficient formula. The reliability of the tool was established using test retest method and analyzed using Karl Pearson's correlation coefficient formula. The reliability of the knowledge items r is 0.80 and practice items r is 0.85, which means there is a highly positive correlation. The pilot study was carried out with five samples in the pediatric ward of MGM Hospital Kalamboli

Intervention programme

A planned teaching programme was developed to teach the mothers of under five children about the prevention and management of scabies. The content validity was ascertained by reviewing the literature, research articles and text books.

- Researchers own experience and observation
- Opinion and suggestions from pediatric doctors, experts from nursing field and staff nurses working in pediatric ward.

After asserting the content validity, the planned teaching programme was translated in to Hindi and Marathi. The planned teaching programme included meaning of scabies, clinical features of scabies, prevention of scabies and care during treatment of scabies.

3. Results

Analysis and interpretation of data

1. Distribution of sample based on demographic characteristics.

N=50

Table 1: Distribution of sample based on age, education, religion, occupation

Demographic characteristics	F	%
Age of mother		
Less than 25 years	19	38.0
26- 30 yrs	18	36.0
31- 36 yrs	7	14.0
36-41 yrs	6	12.0
Education		
Illiterate	10	20.0
Primary	19	38.0
Middle school certificate	12	24.0
Higher secondary	9	18.0
Religion		
Hindu	45	90.0
Muslim	5	10.0
Occupation		
Unemployed	48	96.0
Unskilled worker	2	4.0

Table 1 shows that 38% of mothers were belonging to less than 25 years and 36% of mothers were in 26 -30 years age group, 38% had primary education 90% of them were Hindus and 96% were unemployed.

Table 2
Distribution of Sample Based on Monthly Income Type of Family, No. of Children, and History of Scabies Among Family Members.
Table 2 shows documents that majority were earning less than Rs. 2000 per month, 58% were from nuclear family, 50% had one under five children in the family 18% had a history of scabies among family members.
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Demographic characteristics	F	%
Monthly income in rupees		
Less than 200	29	58.0
2001 -5000	10	20.0
5001 - 8000	11	22.0
Type of family		
Joint family	16	32.0
Nuclear family	29	58.0
Single parent family	5	10.0
No. of under five children		
One	25	50.0
Two	18	36.0
Three	7	14.0
History of scabies among family members		
Yes	9	18.0
No	41	82.0

1. **Analysis of knowledge in relation to prevention and management of scabies among mothers of under five children**

For assessing the knowledge and practice items in the interview schedule, each correct response was scored as one and wrong as zero score. The item concerning the knowledge and practices were scored and converted to percentage, grade and the same was followed for practices and described as below.

Grade	percentage
Poor	0-20%
Average	21%-40%
Good	41%- 60%
Very Good	61%- 80%
Excellent	81%- 100%

2. A) Distribution of sample based on over all knowledge in relation to prevention and management of scabies.

Table 3 Distribution of sample based on pre and post test knowledge in relation to prevention and management of scabies.

Knowledge level	Pre-test F	%	Post test F	%
Poor	19	38.0	0	0
Average	23	46.0	0	0
Good	8	16.0	4	8.0
Very good	0	0	17	34.0
Excellent	0	0	29	58.0

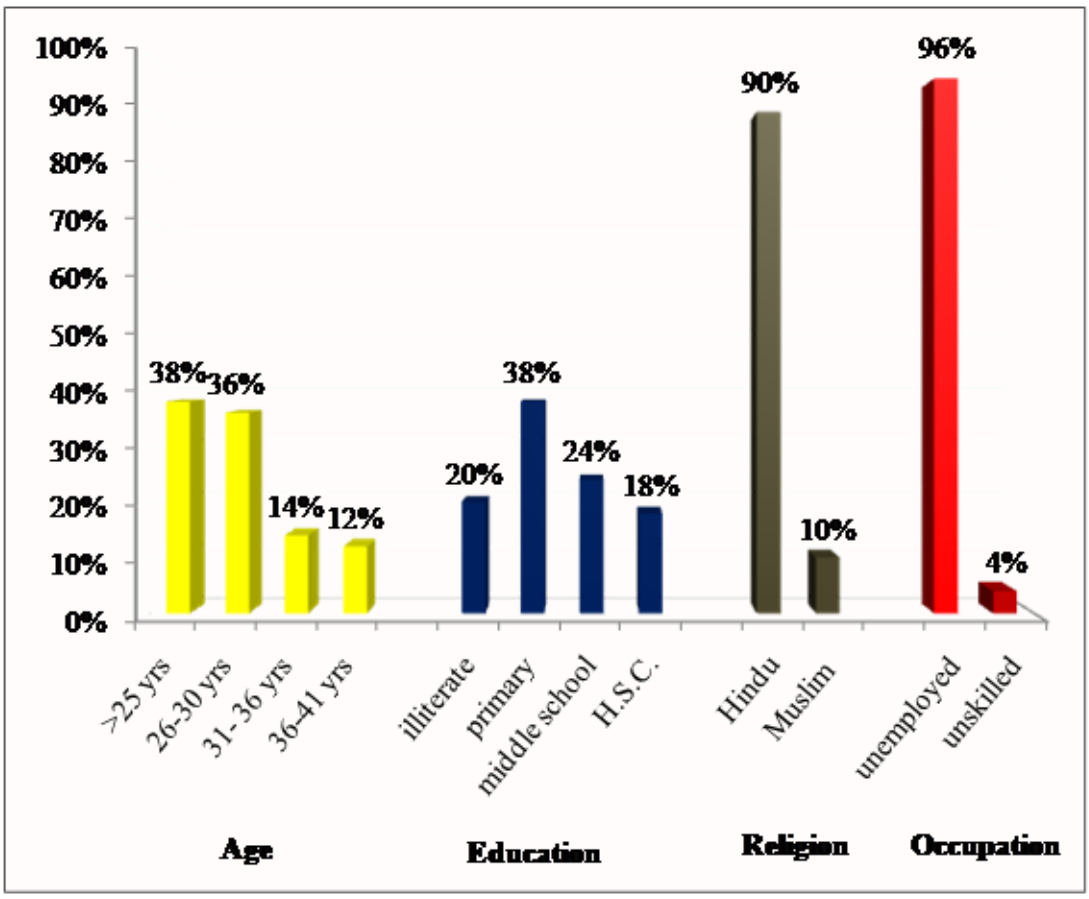
The table 3 presents that during pre test 46% of sample had average knowledge in relation to prevention and management of scabies and 38% of sample had poor knowledge while during post test majority (58%) were in excellent and 34% of got very good score.

Table 4 Significance of the difference in pre and post test overall mean knowledge score of sample in relation to prevention and management of scabies among mothers of under five children.

Knowledge	Mean	S.D.	df	t cal	t tab	*p* value
Pre test knowledge	6.50	3.47	49	29.03	2.01	0.00
Post test knowledge	20.32	2.50				

This table describes that the mean of post-test knowledge score (20.32) is more than that of mean pre-test knowledge score (6.50) in relation to prevention and management of scabies among mothers of under five children with an increased ' t' calculated value (29.03) than that of tabulated 't' value(2.01). Therefore the null hypothesis, $\mathbf{H_{01}}$ is rejected and it is inferred that there is significant difference in pre and post test overall mean knowledge score of sample in relation to prevention and management of scabies among mothers of under five children.

Figure 1. Distribution of sample in relation to age, education, religion and occupation.
The above figure reveals that 38% of sample belonged to an age group of less than 25 years and 36% were in the age group of 26 to 30 years. Regarding education 38% had primary education. In case of religion majority of sample were Hindu and regarding occupation majority were unemployed



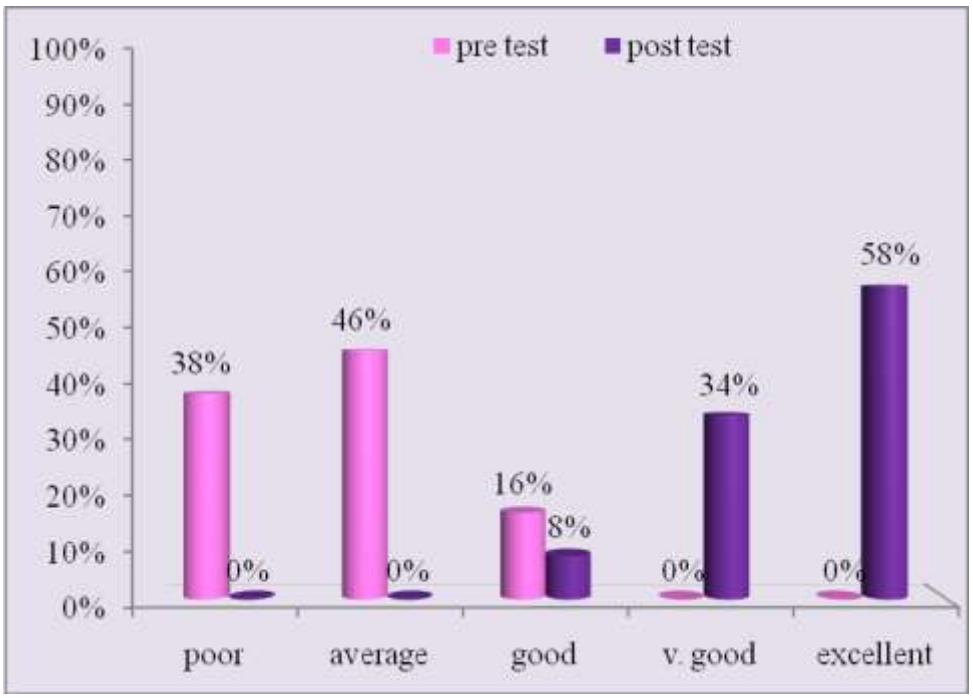


Figure 2. Knowledge level of mothers in relation to prevention and management of scabies.

The above graph shows that 46% had average knowledge score during pretest whereas in post test majority of sample (58%) were in excellent score and the others were in very good(34%) and good (16%)category.

2. B) Significance of the difference in pre and post-test overall knowledge in relation to prevention and management of scabies among mothers of under five children.

In order to test the effect of the planned teaching programme on knowledge, the null hypothesis is stated as follows.

H_{01}: There is no difference in the knowledge in relation to prevention and management of scabies before and after the planned teaching programme among mothers of under five children

The hypothesis is tested using paired 't' test and is presented as Table 4 and Table 5

Table 5

Significance of the Difference in Pre and Post Test Item Wise Mean Knowledge Score in Relation to Prevention and Management of Scabies Among Mothers of Under Five

Items	Max Score	Pre test Mean	S.D.	Post test Mean	S.D.	df	t cal	t tab	*p* value
Meaning of scabies	11	3.00	2.12	9.36	1.68	49	17.78	2.01	0.00
Clinical features	3	0.84	0.87	2.40	0.75	49	9.63	2.01	0.00
Method of prevention	5	1.62	1.44	3.76	1.35	49	10.59	2.01	0.00
Treatment	6	1.00	1.37	4.88	1.01	49	15.12	2.01	0.00

This table displays that the pre and post-test item wise scores and it is clear that the mean post-test scores are greater than that of pre-test scores in each item. Also statistically, the calculated 't'value is greater than that of 't' tabulated value. Therefore it is inferred that knowledge in relation to prevention and management of scabies among mothers of under five children has improved after the planned teaching programme.

Figure 3. Comparison of pre and post test overall mean knowledge score of sample in relation to prevention and management of scabies among mothers of under five children.

The below figure illustrates that there is a significant increase in mean knowledge post test score to 20.32 from a mean knowledge pre test score of 6.5. Hence it is inferred that planned teaching programme is effective in increasing the knowledge of the sample.

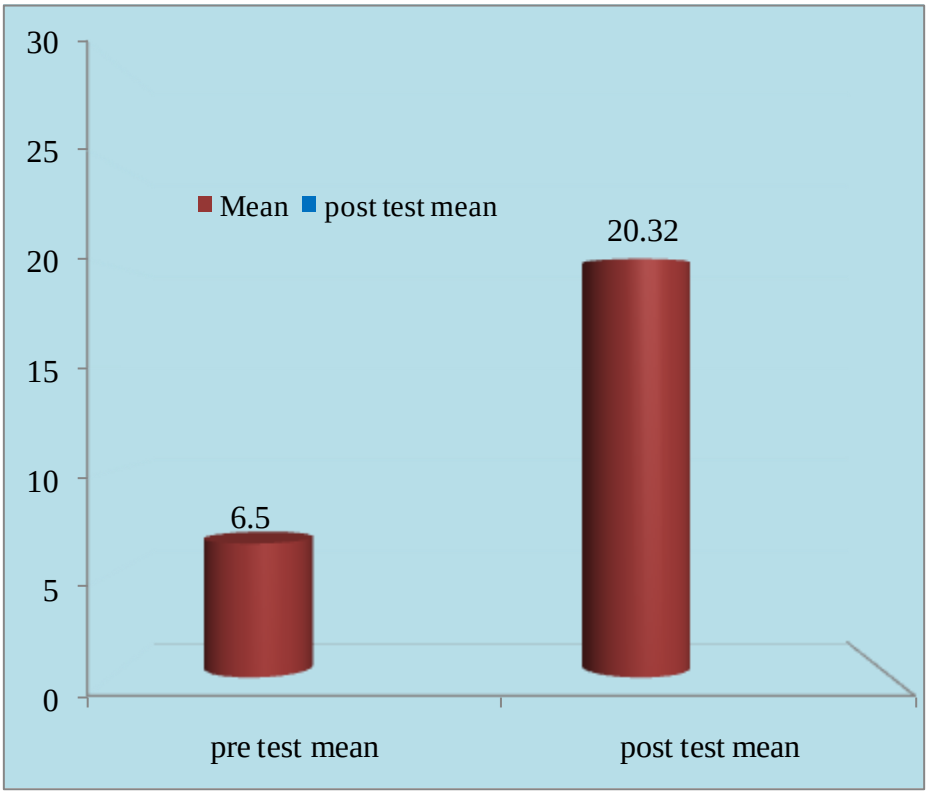
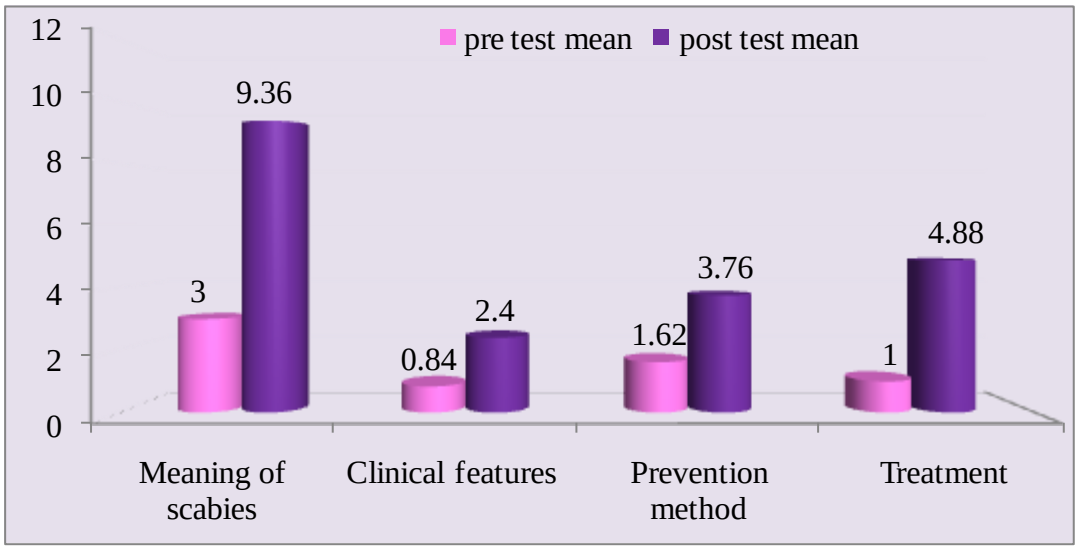


Figure 4. Comparison of pre and post test item wise mean knowledge score in relation to prevention and management of scabies among mothers of under five children.



The above graph displays that in each item such as meaning of scabies, clinical features, Method of prevention, and treatment there is an increase in post score than pre test score. Therefore it is inferred that knowledge in relation to prevention and management of scabies among mothers of under five children has improved after

planned teaching programme.

4. Discussion

As was mentioned earlier, the cornerstone of the management of scabies is treatment of all close contacts, including sexual contacts, even if asymptomatic. Identification and treatment of core transmitters with crusted scabies is also important, since this variety of scabies is very easily transmitted due to high loads of parasites. Therefore, treatment of contacts that have been even minimally exposed to patients infested with scabies is warranted. Even though transmission from bed linens, furniture, and fomites is uncommon; clothes and bed linens should either be kept in a plastic bag for 72 h (sincemites die within this period of time when they are separated from the human host) or machine washed at >50 C [40] and dried the day after its first treatment. Insecticides are generally reserved for material that cannot be laundered [33]. Mass drug administration offers an alternative approach to population control of scabies. Studies in endemic areas of scabies (e.g., Panama and northern Australia) have shown that mass treatment with topical permethrin can substantially reduce the prevalence of scabies and, also, reduce the number of cases of impetigo [34]. Oral ivermectin has also been used for mass treatment in the Solomon Island; following this intervention, there was a significant reduction of scabies from 25 % to 1%, with concomitant decrease of impetigo and hematuria [35].

Section 1 Distribution of sample based on demographic characteristics.

- Section 2 Analysis of knowledge in relation to prevention and management of scabies among mothers of under five children.
- Section 2 A Deals with the distribution of sample based on over all knowledge in relation to prevention and management of scabies.
- Section 2 B Deals with significance of the difference in pre and post-test overall knowledge in relation to prevention and management of scabies among mothers of under five children.

Section1: Distribution of sample based on demographic characteristics.

This section deals with the socio demographic details of mothers who took part in the study. Majority of the sample 19 (38 %) who participated in the study were in the age group of less than 25 years, 18 (36 %) between 26 to 30 years, a few seven (14 %) belonged to the age group of 31 to 36 years and a few six (12 %) were in between 36 to 41 years. Describing about Educational background, 22 (44%) of the sample were illiterate, 19(38%) were educated up to primary education and nine (18%) had under gone higher secondary level. Regarding occupation of sample 48 (96%) was unemployed and two (4%) were unskilled worker. Considering about financial back ground 29 (58%) had monthly income less than of Rs.2000, 10(20%) earned a monthly income between Rs. 2001 and Rs.5000 and 11(22%) had an income between Rs. 5001 and Rs.8000. Related to the family back ground 29(58%) belonged to nuclear family, 16 (32%) were from joint family and five (10%) mothers are single parents. Experiences with scabies that is history of scabies among family members nine (18%) mothers had an awareness about scabies, while 41(82%) of mothers said that they never heard about scabies.

Section 2: Analysis of knowledge in relation to prevention and management of scabies among mothers of under five children.

In relation to overall knowledge regarding prevention and management of scabies 19 (38%) subjects belonged to poor 23(46%) were in average score and eight (16%) were in good category during pre test while all the subjects (100%) were found in good (8%) very good (34%) and excellent category (58%) after post test. An item wise analysis revealed that there was a highly significant difference in item wise knowledge scores in all items before and after planned teaching programme as the p value is < 0.001Statistical analysis shows a highly

significant difference in the pre test and post test knowledge scores of the mothers in relation to prevention and management of scabies as 'p' value is <0.001. Hence the planned teaching is found to be effective in improving knowledge in relation to prevention and management of scabies.

References

[1] Achar, S.T. Achar's Text Book Of Pediatrics. Hyderabad; 4th edn.Hyderabad:University Press India Publishers.

[2] Andrews, R.M, McCarthy, J, Carapetis, J.R, & Currie BJ. (2009).Skin disorders, including pyoderma, scabies, and tinea infections. *Pediatr Clin North Am*; 56(6).

[3] Accorsi, S. & Barnabas, G.A. (2009). Skin disorders and disease profile of poverty: analysis of medical records in Tigray, northern Ethiopi. *Trans R Soc Trop Med Hyg*. ; 103(5)

[4] Alsamarai, A.M. (2009). Frequency of scabies in Iraq: survey in a dermatology clinic. *J Infect Dev Ctries* ;3(10)

[5] Amy L Mccroskey. (2010). Scabies in emergency medicine: *Med scape reference*.

[6] Andrews R. M.& Mc Carthy J. (2010). Skin disorders, including pyoderma, scabies, and tinea infections. *Pediatr Clin North Am*.;68(6)

[7] Parashar A.K. (2010).Effective Planned Teaching Programme on Knowledge & Practice of Basic Life Support among Students in Mangalore .*TNAI Journal*.(2)

[8] Dsouza, A. (2009). Effectiveness of Planned Teaching Programme on Knowledge and Attitude about Complementary Feeding among Mothers of Infants. *TNAI JOURNAL*. 11.

[9] Ariza, L, & Walter, B. (2012). Investigation of a scabies outbreak in a kindergarten in Constance, *Germany. Eur J Clin Microbial. Infect Dis*. Sep 28

[10] Ashalatha, W. Devi. R. & Lamaragana, D. (2012). A survey to assess the knowledge, practice, and attitude on acute respiratory infection among mothers of u five children at MCH clinic. Raighat: *International journal of nursing education*.: 4 (1)

[11] Basvanthappa, B.T. Pediatric/ Cild health nursing. Delhi: *Ahuja Publications.*

[12] Basvanthappa, B.T. (2001). Nursing Research: 2nd edition.New Delhi: *Jaypee Brothers*

[13] Beth, C.Gold. (2012). Scabies.Clinicians Institutions Group Practices Patients.Dec

[14] Brooks, P.A, Grace, R.F. Brook,s P.A,& Grace RF.(2002). Ivermectin is better than benzyl benzoate for childhood scabies in developing countries. *J Paediatr Child Health*. Aug;38(4).

[15] Chosidow, O. (2006). 47 Scabies. *N Engl. J Med;* 20 (354)

[16] Christian, D.(2012). Why the first two years of life can be make or break. Nursing children and young people.

[17] Connors, C, (2002). Diagnosis and treatment of scabies: rapid diagnosis and proper management limit the risk of spread; 11(61).

[18] Monsel, G,& Chosidow O. (2012).Management of scabies. *Skin Ther Lett*.; 17:1–4.

[19] Taplin, D, Porcelain, S.L, Meinking, T.L. (1991). Community control of scabies: a model based on use of permethrin cream. *Lancet*. ;337:1016–8

[20] Lawrence, G, Leafasia, J, and Sheridan, J. (2005). Control of scabies, skin sores and haematuria in children in the Solomon Islands: another role for ivermectin. *Bull World Health Organ.*; 011197:34–42