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A study on practices of mothers about scabies in children under five years of age

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Abstract

Scabies remains a public health problem, especially in developing countries with a worldwide incidence of approximately 300 million cases each year. Prolonged skin-to-skin contact is necessary to allow the transmission of the causative mite. **Aim:** To assess the practices in relation to prevention and management of scabies among mothers of under five years of aged children, before and after planned teaching sprogramme To find the Significance of difference in pre and post-test overall practice score related to scabies. And to find out the association of post test practices in relation to prevention and management of scabies with selected demographic variable among mothers of under five children. **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 describes about the reported practices of mothers of under five children regarding the 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:** During pre test in relation to prevention and management of scabies with regard to over all practices 48% of sample was in good category while 34% and 18% were in average and poor category which changed to 32% and 68% of very good and excellent category respectively during post test. A highly significant difference in the pre test and post test practices scores of the subjects in relation to prevention and management of scabies was found 'P' value is <0.0001. Hence the planned teaching is found to be effective in improving practices in relation to prevention and management of scabies among children under five.

Keywords: Scabies, Children, paediatric medical ward, pre and post-test

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1. Introduction

A study describes that the incidence of scabies undergoes cyclical fluctuations on a worldwide basis, although all parts of the globe are not necessarily in the same phase of the cycle at the same time [1]. In the 1960s the incidence in Europe and North America began to increase, and by 1980 had reached near-pandemic levels. Since then, the rate of scabies has declined somewhat, but the disease is still common. As many as 300 million people may be affected worldwide [2]. In northern Australia, prevalence of scabies is up to 50 % among children [3]. Scabies is a relatively common skin disease and because of its massive infection nature it's a social problem among young Children [4].

A recent study reveals that scabies remains one of the commonest of skin diseases seen in developing countries [5]. Scabies is a condition that affects families, particularly the most vulnerable.ie the young children [6].
That most common skin infections affecting children in remote communities are scabies and impetigo [7]. In India as nearly 30% of all outpatient visits to a paediatrician consist of either primary or secondary dermatological cases mainly because of two cutaneous infestations, namely scabies and pediculosis and superficial fungal infections (ringworm) are most commonly seen, yet often treated inappropriately [8]. They concluded that practices of some of the common dermatological problems are important. In another study stated that scabies were more affected in males than females [9].
That management of scabies not only includes prescribing the correct drugs but also educating patients about their application. Treatment failure can result from a variety of causes and must be managed appropriately [10]. The pattern of skin disease in India is affected by various ecologic factors like economic background, environmental factors, literacy level, social, mental and racial factors [11].
A study recommended assessing the effect of planned teaching programme on practice in relation to prevention and management of scabies among mothers of under five children [12].
Scabies is a frequent, contagious dermatosis. Its management is sometimes complex and updated treatment guidelines are useful. Patients and people in close physical contact with infected individuals should receive detailed information from healthcare providers, because treatment failure is often attributable to poor compliance or incorrectly carrying out instructions of prescribed therapy. Decision-making for topical or oral treatment may vary by situation. Randomized controlled trials comparing topical treatment to oral ivermectin demonstrating a high level of evidence are needed.

In order to prevent the incidence of scabies among the under five population, an educational programme is necessary among the mothers as they are the most influential group for under five children.

Statement of the problem

Effect of planned teaching programme on practices 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 practices 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 practices in relation to prevention and management of scabies and selected demographic variables among mothers of under five children.

Aim

- To assess the practices in relation to prevention and management of scabies among mothers of children under five years age, before and after planned teaching programme.
- To find the Significance of difference in pre and post-test overall practice score related to scabies.
- To find out the association of post test practices in relation to prevention and management of scabies with selected demographic variable 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 describes about the reported practices of mothers of under five children regarding the 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 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

1. Analysis of practices in relation to prevention and management of scabies among mothers of under five children.
This section deals with the practices in relation to prevention and management of scabies among mothers of under five children. This section is further subdivided into section A and section B.
1 A. Distribution of sample based on overall practices in relation to prevention and management of scabies among mothers of under five children.
The table 1 describes that during pre test in relation to prevention and management of scabies with regard to over all practices 48% of samples were in good category while 34% and 18% were in average and poor category respectively. While during post test majority (68%) acquired excellent grading and others (32%) got very good score.

Table 1
Distribution of sample based on mean pre and post test overall practices in relation to prevention and management of scabies.
n = 50

Overall Practice level	Pre-test F	%	Post test F	%
Poor	9	18	0	0
Average	17	34	0	0
Good	24	48	0	0
Very good	0	0	16	32
Excellent	0	0	34	68

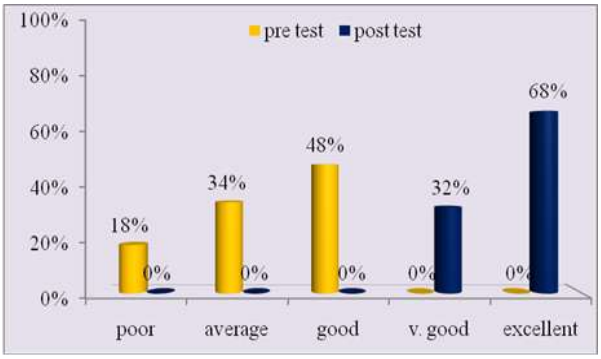

Figure 1. Overall practice level of mothers in relation to scabies

The above bar graph displays that during pre-test, 48% had good practices, and 34% samples had average practices with regard to overall practices about scabies. Whereas in post test majority of sample (68%) had excellent score and remaining were in good score which shows that there was increase in overall practices after planned teaching programme.

1 B) Significance of the difference in pre and post-test overall practice score related to scabies

In order to test the effect of the planned teaching programme on overall practices the null hypothesis, H02: There is no difference in the practices in relation to prevention and

management of scabies before and after the planned teaching programme among mothers of under five children is stated and tested using paired t test and is presented in Table 2 and Table 3.

Table 2. Significance of the Difference in Pre and Post Test Mean Overall Practices in Relation to Prevention and Management of Scabies.

Over all Practices	Mean	S.D.	df	t cal	t tab
Pre test	9.18	2.912	49	35.28	2.01
Post test	20.98	1.204			

P Value: 0.00

Table 2 explains that the mean pre-test practices score (9.18) and the mean of post-test practices score (20.98) of mothers of under five children. As mean post-test practices score is more than the mean pre-test practice score with the '*p'* value of 0.00 Therefore the null hypothesis, $\mathbf{H_{02}}$ is rejected and it is inferred that there is significant difference in pre and post test mean overall practices in relation to prevention and management of scabies among mothers of under five children

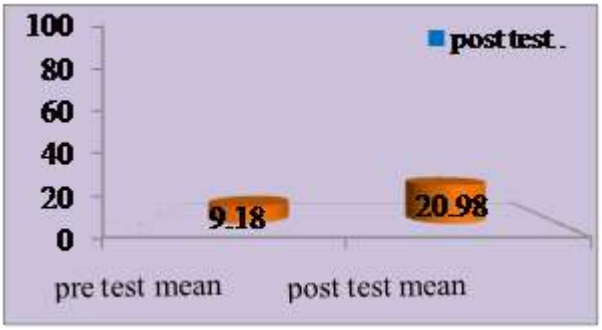

Figure *2.* Significance of difference in pre test and post test mean score of practice of mothers in relation to scabies.

The above diagram depicts that mean post test practice score is 20.98 whereas Mean pre test practice score is 9.18 which showed that planned teaching programme in relation to prevention and management of scabies was effective in improving practices related to prevention of scabies among mothers of under five children

Table 3: Significance of the difference in pre and post test item wise mean practices score in relation to prevention and management of scabies among mothers of under five children.

Items	Max score	Pre test Mean	S.D.	Post test Mean	S.D.	f	t cal	t tab	*p* value
Prevention	10	3.46	1.15	10	1.01	49	30.096	2.01	0.00
management	15	5.72	2.04	12.70	0.46	49	28.694	2.01	0.00

This table 3 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 practices in relation to prevention and management of scabies among mothers of under five children has improved after the planned teaching programme.

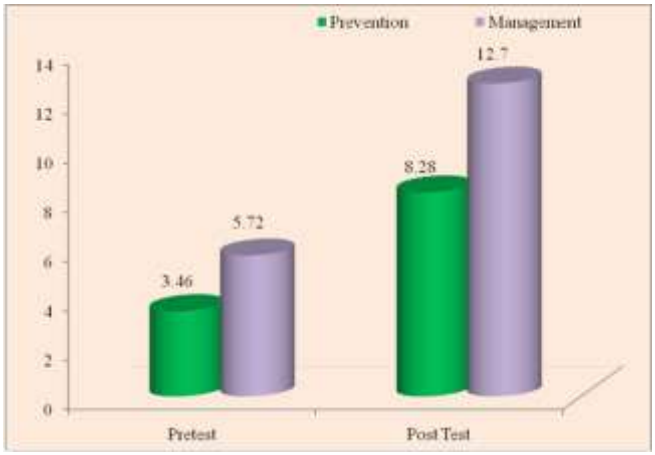

Figure 3. Significance of the difference in pre and post test item wise mean practices score in relation to prevention and management of scabies among mothers of under five children.

The above graph reveals that item wise score related to prevention and management in the post test is higher than that of pre test score. Therefore it is inferred that planned teaching programme was effective in improving practices related to prevention of scabies.

2: Association of post test practices in relation to prevention and management of scabies and selected demographic variables among mothers of under five children

$H_{04.}$ There is no association between post test practices and selected demographic variables in relation to prevention and management of scabies among mothers of under five children. Chi square testing method is used for proving the above mentioned hypothesis and applied in different demographic variable such as education, religion, type of family, number of under five children, and history of scabies among family members.

Table 4: Association between post test practices in relation to prevention and management of scabies and education among mothers of under five children**.** n = 50

Table 4: Shows that the X^2 calculated value is (28.46) more than the X^2 table value of (12.59). Hence the null hypothesis is rejected in all practices and inferred that there is an association between post test practices and education of sample in relation to prevention and management of scabies among mothers of under five children.

Posttest practices	Education				df	X^2 cal	X^2 tab	*p* value
	Illiterate	Primary	Middle school	H.S.C.				
Very Good & below	10	15	1	2	6	28.46	12.59	0.00
Excellent	12	4	1	5				

Table 5: Association between post test practices in relation to prevention and management of scabies and religion among mothers of under five children

Post test practices	Religion		df	X^2 cal	X^2 tab	*p* value
	Hindu	Muslim				
Very good and below	11	4	1	6.61	3.84	0.010
Excellent	34	1				

Table 5 reveals that the X^2 calculated value is (6.61) more than the X^2 table value (3.84). Hence the null hypothesis is rejected and inferred that there is an association between post test practices and religion in relation to prevention and management of scabies among mothers of under five children.

Post test Practices	Type of family			df	X^2 cal	X^2 tab	*p* value
	Joint	Nuclear	Single parent				
Very good	2	11	2	2	3.44	5.99	0.179
Excellent	14	18	3				

Table 6: Association between post test practices in relation to prevention and management of scabies and type of family among mothers of under five children
n = 50

Findings of the table 11 revealed that the X^2 calculated value is (3.44) is less than the X^2 tabulated value of (5.99). Hence the null hypothesis is accepted and be inferred that there is no association between on post test practices and type of family in relation to prevention and management of scabies among mothers of under five children.

Post test practices	Number of under five children in the family			df	X^2 cal	X^2 tab	*p* value
	One	Two	Three				
Very good	8	3	4	2	4.03	5.99	0.134
Excellent	17	15	3				

Table 7: Association between post test practices in relation to prevention and management of scabies and number of under five children among mothers of under five children
n = 50

Table 7 depicts that the X^2 calculated value is (4.03) less than the X^2 tabulated value (5.99). Hence the null hypothesis is accepted and inferred that there is no association between post test practices and number of under five children in the family of sample in relation to prevention and management of scabies among mothers of under five children.

Table 8: Association between post test practices in relation to prevention and management of scabies and history of scabies in the family among mothers of under five children

Post test practice	History of scabies Yes	No	df	X^2 cal	X^2 tab	*p* value
Very good	0	15	1	4.70	3.84	0.030
Excellent	9	26				

Table 8 depicts that the X^2 calculated value is (4.70) which is more than the X^2 tabulated value of (3.84). Hence the null hypothesis is accepted and inferred that history of scabies among the family of sample had an association with post test practices related to prevention and management of scabies among Mothers of under five children.

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 [13]. 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 [14]. 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 [15].

Section 1 Analysis of practices in relation to prevention and management of scabies among mothers of under five children.
Section 1A Distribution of sample based on overall practices in relation to prevention and management of scabies among mothers of under five children**.**
Section 1 B Significance of difference in pre and post-test overall practice score related to scabies.
Section 2: Association of post test practices in relation to prevention and management of scabies with selected demographic variable among mothers of under five children.

Section 1 Analysis of practices in relation to prevention and management of scabies among mothers of under five children

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A highly significant difference in the pre test and post test practices scores of the subjects in relation to prevention and management of scabies was found 'P' value is <0.0001. Hence the planned teaching is found to be effective in improving practices in relation to

prevention and management of scabies among under five children.

Characteristic of the sample who was selected for the study is in consistent with the sample selected for the study by Singh Hari Mohan at Raichur in Karnataka [16]. In his study the overall and item wise practices regarding prevention and management of scabies improved significantly after planned teaching programme as indicated by increase in the post test scores. Similar results were also found in previous study where in 60%-80% answered correctly during pre test where as 75% to 98% answered correctly during post test [17].

Section 2: Association of post test practices in relation to prevention and management of scabies with selected demographic variable among mothers of under five children.

The incidence of scabies among under five children scabies had an association with selected demographic variable such as education of mothers, religion of mothers, etc [18].

Conclusions

Scabies still remains a significant public health problem, especially in the developing world. Diagnosis of the disease is still challenging. Efforts should be made to develop a standardized, reliable, and cheap method for the diagnosis of scabies that can be affordable to underdeveloped countries, where most of the cases of scabies are seen. The ideal treatment modality is still unclear, and further research on this topic is warranted. The study has clearly shown that majority of mothers of under five children have poor practices about prevention and management of scabies. The findings of the study showed that there was a highly significant difference between the pre test and post test practice scores in relation to prevention and management of scabies. Hence the planned teaching programme is found to be effective in improving the practices in relation to in relation to prevention and management of scabies among mothers of children under five years of age.

References

[1] Fathy, F.M. & El-Kasha F. (2010). Clinical and parasitological study on scabies in Sirte, Libya. *J ESgypt Soc Parasitol*. ;40(3).

[2] Feldmeier, H. & Jackson A.. Feldmeier H,& Jackson A. (2009)The epidemiology of scabies in an impoverished community in rural Brazil:presence and severity of disease are associated with poor living conditions and illiteracy.*J Am Acad Dermatol*.;60(3)

[3] Ghai, O.P.Essential paediatrics.5th Edition.New Delhi: Mehta publishers.

[4] Gilmore, S.J. (2011). Control strategies for endemic childhood scabies. *Int J Dermatol*.;51(2)

[5] Good, L.M & Good, T.J. (2011). High WA. Infantile acropustulosis in internationally adopted children *. J Am Acad Dermatol*. ; 65(4)

[6] Gupte, S .The short test book of paediatrics: 10th edition. New Delhi: J. P Publishers.

[7] Singh H.M.. (2005). Astudy to assess the effect of planned teaching programme on prevention and management of scabies among mothers of under five children.

[8] Hay, R. J Stee,r A. C, (2012). Scabies in the developing world--its prevalence, complications, and management*. Clin Microbial Infect*.; 18(44).

[9] Heukelbach, J,& Feldmeier, H.(2006). Clinical features and associated morbidity of scabies in a rural community in Alagoas, Brazil. *Lancet*.

[10] Hockenberry. W Nursing care of infants and childhood: 8th edition misouri: mosbey publishers

[11] Jackson, A. Heukelbach, J. Jackson A, Heukelbach J, & Filho AF(2007). Clin ical features and associated morbidity of scabies in a rural

community in Alagoas, *Brazil. Trop Med Int Health*.;12(4)

[12] Jaisy, T J (2011). Effectiveness of Planned Teaching Programme On Self-Care For Patients With Diabetes Mellitus In A Selected Community At Mangalore.2005.

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

[14] 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.

[15] Lawrence, G, Leafasia, J,& 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

[16] Singh H.M.. (2005). Astudy to assess the effect of planned teaching programme on prevention and management of scabies among mothers of under five children.

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

[18] Wong, L.C (2005). Amega B, Barker R, Connors C, Dulla .et.al. Factors supporting sustainability of community-based scabies control program. *Australas J Dermatol*.;43(4)