

Occurrence of Scabies among Children and Effectiveness of an Awareness Programme on Knowledge and Practice among Mothers of Children in selected slums of Doiwala, Dehradun, Uttarakhand

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Abstract- Scabies is a common dermis invasion throughout the world. It is found more in developing countries and spreads very rapidly from one person to another in family members living together, schools and hospitals etc. Scabies is always an active parasite in the human body which is spread by a mite called Sarcopic. The WHO described scabies as an illness that is affecting people's lifestyles but is a neglected disease. The research was to identify the occurrence rate of childhood scabies and improve the understanding and practices of the mothers of child regarding scabies. An experimental investigation was performed employing one group pre-test & post-test design to assess occurrence of scabies among children and to evaluate the impact of an awareness initiative regarding scabies among mothers of children of slum area of Doiwala. Data were collected by symptoms checklist, knowledge questionnaire and practice checklist. Scabies affected 8% of children aged 1 day to 12 years. Post-test knowledge (20.01 ± 1.9) significantly surpassed pre-test (10.89 ± 2.6) ($t=40.21$, $p<0.05$). Post-test practice (16.12 ± 1.6) significantly improved over pre-test (11.07 ± 2.5) ($t=26.78$, $p<0.05$). Knowledge and practice correlated moderately positively (0.6).

Keywords: Scabies, Awareness Program, Parasite, Disease control.

1. INTRODUCTION

The scabies is a Latin word which means "scratch". It is a highly transmissible and can spread quickly through close physical contact. Scabies in human is always an active parasite that occurs through mite Sarcopites. Scabies as a contagion bacterial infection can be complicated & lead to appear skin sores which can further lead to foremost grave outcomes.

Scabies is a common dermatological infestation throughout the world. It is found more in developing countries and spreads very rapidly from one person to another in family members, schools, prisons, and hospitals. A mite known as Sarcopites spreads the parasite scabies, which is always active in the human body.

Direct physical contact, wearing another person's clothing, sharing a bed, and sharing towels and other personal items are all effective ways to spread scabies from one person to another. Even though itching is the most prevalent symptom of scabies, itching at night is significantly more intense. Hypersensitivity and other scabies-related consequences such impetigo, septicaemia, abscesses, folliculitis, and cellulitis can also lead to death. The best way to diagnose the disease is skin scarping and management of the disease with a good detection and understanding of the disease and its preventative strategies. According to WHO data (2021) Scabies afflicts approximately three hundred million individuals globally annually. It is usually seen among children and infants and its spreads very rapidly, especially in people living in day care centers, nurseries and in houses where many people live together. In India, the prevalence varies from 13% to 59% in rural and urban locales.

2. OBJECTIVE

The study sought to determine the prevalence of scabies among children and assess the effectiveness of an awareness program in enhancing maternal understanding and practices related to the condition.

3. METHODOLOGY

Research Approach: quantitative analysis.

Research Design: pre-test and post-test design.

Sampling Technique: Consecutive sampling technique

Sample: Mothers of Children

Reliability of Tool

The reliability was assessed using the Karl Pearson correlation method. The obtained correlation coefficients for

knowledge ($r=0.9$) and practice ($r=0.8$) indicated high reliability, affirming the robustness of the tool.

Data collection

Written permission was acquired from the authorities, and informed consent was obtained from the mothers before initiating the study. No ethical issues were raised during the data collection period. The interview conducted with each of the subject took around 10-15 minutes assessment of children was completed within 5 minutes. After completed whole pre-test data an awareness program was given on scabies, and it was taken total 15-20 minutes. On 7th day after intervention the post-test were conducted to saw the effectiveness of awareness program among mothers of children.

4. RESULTS AND FINDINGS

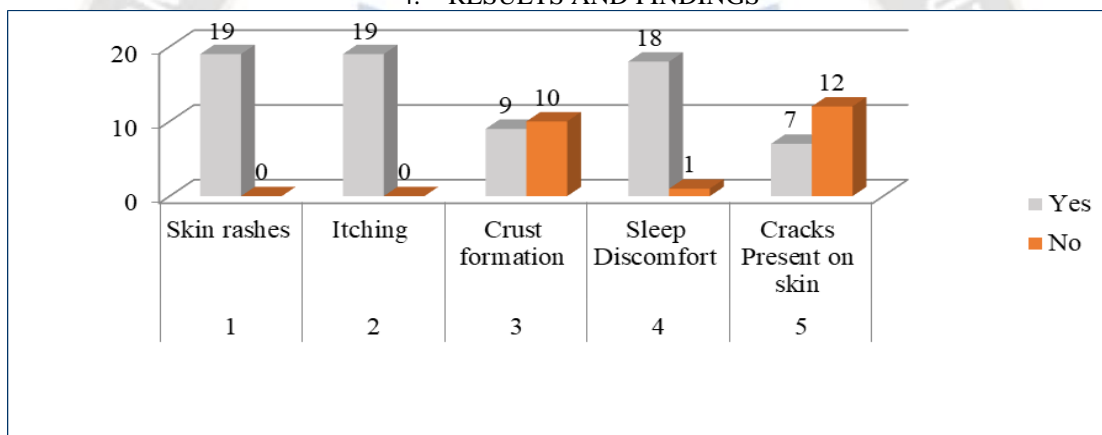


Figure 1: Occurrence of scabies among children based on Assessment & symptoms checklist.

Figure No. 1 revealed that the frequency of symptoms of scabies among children, which shows that 19 (8%) children were found to have symptoms of scabies. All 19 (100%) children had skin rashes & itching. And out of 19 children 9 had crust formation, 18 had sleep discomfort at night and 7 had cracks present in skin.

Table 1: Scabies awareness level among mothers of children.

S. No.	Knowledge Score	Level of Knowledge	Before Intervention		After Intervention	
			f	%	f	%
1	0-12	Poor	106	73	-	-
2	13-19	Average	37	26	27	19
3	20-25	Good	2	1	118	81

Table 1, showed that 106 (73%) mothers exhibited limited understanding scores and only 2 (1%) had good Knowledge score before the intervention but after intervention Majority of participants 118 (81%) had good knowledge scores

regarding scabies and 27(19%) mothers were had average intellectual rating and no mothers exhibited deficient knowledge.

Table 2: Level of practices regarding scabies among mothers of children.

S. No.	Practice Score	Level of Practices	Before Intervention		After intervention	
			f	%	f	%
1	0-10	Poor	70	48	-	-
2	11-15	Average	70	48	27	19
3	16-20	Good	5	4	118	81

Table 2, showed that before intervention 70 (48%) had poor and 70(48%) had average practice score and only 5(4%) had good practice score but after intervention 27(19%) had

average practice score and 118(81%) had good practice score and no one found in poor practice score.

Table. 3: Analysis of average knowledge scores before and after intervention among mothers of children.

S. No.	Knowledge	Range	Mean±SD	MD	df	t-value	P value
1	Pre test	5-20	10.89±2.6	9.12	144	40.21	0.001*
2	Post test	15-23	20.01±1.9				

Table 3, The mothers' mean post-test knowledge score on scabies (20.01±1.9) exceeded the pre-test score (10.89±2.6) by a MD of 9.12. The calculated t-value (40.21) significantly exceeded the tabulated value (t 144=3.4), indicating statistical significance.

Table. 4: Comparison of mean pre and post-practice scores of mothers of children.

S. No.	Practice	Range	Mean±SD	MD	df	t-value	P value
1	Pre test	6-18	11.07±2.5	5.05	144	26.78	0.002*
2	Post test	12-18	16.12±1.6				

Table 4, showed that mean post-test practice score (16.12±1.6) of the mothers on practices of scabies were higher than pre-test practice score (11.07±2.5) and the MD

was 5.05. The t determined value (26.78) was higher than the reference value (t144= 3.4) which was statistically significant.

Correlation between post-test knowledge score & post-test practice score

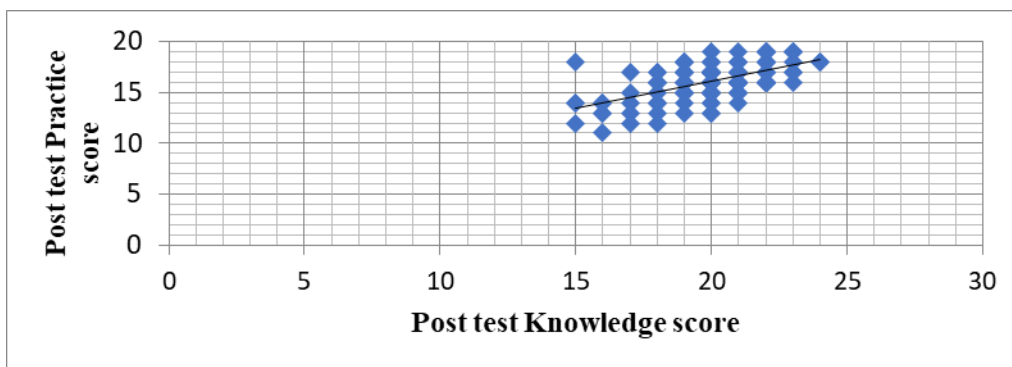


Figure 2. Correlation between post-test knowledge score & post-test practice score

Figure 2, Data shows that there is positive moderate correlation (0.6) between post-test knowledge score and post-test practice score.

5. DISCUSSION

Occurrence of scabies among children

Based on a symptom checklist and data gathered about the occurrence rate of scabies in children, the current investigation found that out of 239 children 19 (8%) were having scabies. (56%) falls in the age of 1 month-6 years; more than half of the children were female. Data also shows that all 19 children had rashes and itching on the affected area. Most common area of rashes among children were the scalp (53%), Abdomen (42%), web spaces (11%) Buttocks 37% and wrist (32%). The incidence of scabies was 19.26% in a similar study on children conducted by Ararsa G, in the year 2023. Children shared beds in 81.8% of instances, had a history of scabies or skin irritation, and used just water to wash their hands in 72.4% of the cases. Data from another study by Girma E et al. indicated that every child with scabies experienced nocturnal exacerbation of pruritic skin lesions. Alternate regions impacted by scabies include finger webs, ulnar area, axillary region, genitalia, abdomen, scapular region, elbows, buttocks, and lower legs.

Knowledge of the mothers

Based on the research results, the majority of participants (73%) had low knowledge scores, 26% average knowledge scores, and only 1% had high knowledge scores before intervention. However, following the intervention, the majority of participants (81%) had high knowledge regarding scabies, with 9% of the sample having average knowledge scores and no having low scores. The results supported the research by Handa R. (2019), which found that 38% of mothers had poor knowledge and 62% had fairly adequate knowledge. 90% of moms scored adequately knowledgeable

on the post-test, 10% scored somewhat knowledgeable, and none scored inadequately.

Practices of the mothers

According to the data, the majority of participants (81%) had good practice scores, and none had poor practice before the intervention, but the highest percentage of participants (48%) had poor and average practice and just 4% had good practice after teaching on scabies. A descriptive study carried out in 2015 by Yusof MB. et al. reveals that participant practice was moderate compared to participant knowledge.

Impact assessment of scabies awareness program on maternal knowledge and practices

The study results indicated that mean post-test knowledge scores regarding scabies surpassed their pre-test counterparts, with a mean difference of 9.12 between the two. The difference between the tabulated result ($t_{144}=3.4$) and the computed value (40.21) was statistically significant. The participants' mean post-test practice score for scabies prevention measures was higher than their pre-test practice score (11.07 ± 2.5), with a mean difference of 5.05. This score was 16.12 ± 1.6 . It was statistically significant since the t computed value (26.78) was higher than the tabulated value ($t_{144}=3.4$). Similar research was done by Jonwal A. (2018) (STP) on the awareness of scabies prevention among mothers of young children in rural Jaipur. Data shows that average understanding rating from the pre-test was raised from 14.72 to 23.42 in the post-test. The total mean difference between the post-test and the pre-test that was found was 8.70. Significantly, the t value was 10.279 (P 0.01), which is quite important. The study's findings demonstrate the value of an organized educational curriculum in enhancing mothers' knowledge, and a strong correlation exists between mothers'

level of scabies knowledge and factors like age, religion, family structure, and monthly household income.

Association between maternal understanding and behaviour regarding scabies

The results show a substantial positive moderate correlation (0.6) between the post-test knowledge score and the post-test practice score ($p < 0.01^*$). Riskika S HA. (2021) conducted a study to assess the connection student knowledge and attitudes concerning the practice of scabies. With the aid of the chi-square test, the study's major goal was to govern the comprehension between knowledge and attitude and practice to prevent scabies. The outcome the study demonstrated a notable relationship between understanding and practice ($p < 0.004$), attitudes and practice ($p < 0.02$), and both of these variables.

6. CONCLUSION

The study examined the occurrence of scabies among children and the impact of an awareness program on the knowledge and practices of mothers in selected slum areas. The findings shed light on the prevalence of scabies and highlighted the positive effect of the awareness program in improving mothers' understanding and preventive measures. This underscores the importance of targeted educational interventions in combating infectious diseases in vulnerable communities.

Conflict of interest: None

Ethical Clearance: The study design and data collection instruments were presented to the research committee, and ethical approval was secured from the ethics committee.

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