

## CROSS SECTIONAL STUDY OF PREVALENCE OF SCABIES IN SCHOOL GOING CHILDREN

YOGESH G. RAUT, DR. VASANT WAGH, NEELAM SINGH, DR. SUSHIL AGREKAR

**Abstract:** In developing countries skin diseases are affecting more than 60% of the general population and usually, are not well managed. Skin diseases are common in children. The aim of this study was to investigate prevalence of scabies in children under 12 years of age at a school in rural area of Wardha district using pre-tested and pre-assigned questionnaire, a cross-sectional study was carried out during a period of one month. A total of 300 children 7 - 12 years old were examined. The prevalence of scabies was found in 18% of children, of which prevalence was higher in males (62%), than in females (38%), prevalence rate was higher in malnourished children and in children with poor personal hygiene. The prevalence rate was also higher in joint families (63%) than nuclear families (37%). The epidemiologic data are necessary for the monitoring of skin changes in school children and provides the basis of training programs for medical professionals in primary health care with the aim to reduce long-term morbidity and socioeconomic impact.

**Key words:** Scabies, Prevalence.

**Introduction:** Scabies is an infestation of the skin caused by a mite. The female mite burrows into the top layer of the skin. This forms a slightly raised tunnel where the mite lays eggs and leaves waste. The mite is passed from person to person by skin contact or sharing bedding, clothing or other linens with a person who has scabies. The most common symptom is an itchy rash. Often the rash itches most at night. It can appear anywhere on the body but is usually on the hands, wrists, elbows, breasts, armpits, waistline, and groin. Elderly persons, persons in institutions, and persons whose immune system is weak may not have itching. Any unusual skin problem should be checked by a doctor. A person is probably able to spread scabies from the moment of contact until after all treatment is complete. Scabies is diagnosed by a doctor or nurse looking at the rash and/or by taking a scraping from the skin.

**Materials and Methods:** Source of data:

Cross sectional study was conducted among the children less than 12 years of age at a school in rural area of Wardha District using pre-tested and pre-designed questionnaire.

**Analysis of Study variables:**

Twenty parameters namely Parents education, age and sex of child, type of house, site of lesion, history of itching, signs of scabies, recurrent infection, personal hygiene, weight for age, and diurnal variation of itching, family members and malnutrition.

**Statistical Procedure:**

The statistical analysis was done by chi square test  $p < 0.05$  was considered statistically significant at 5% level of significance.

Table 1: Sex wise classification of Children

N=300	Male	%	Female	%
Age of Children				

7 to 8	65	21.67	37	12.33
9 to 10	55	18.33	35	11.67
11 to 12	71	23.67	37	12.33
History of Itching				
Yes	78	26.00	50	16.67
No	113	37.67	59	19.67
Clothing Style				
Clean	108	36.00	67	22.33
Dirty	83	27.67	42	14.00

Table 2: Association between Scabies children with different factor

Factor (N=54)	Male	%	Female	%	P value
<b>Skin Diseases</b>					0.803
Yes	4	7.41	2	3.70	
No	30	55.56	18	33.33	
<b>Site of Lesion</b>					0.99
Upper Limb	14	25.93	8	14.81	
Lower Limb	8	14.81	4	7.41	
Both Limb	9	16.67	5	9.26	
Any Other	3	5.56	3	5.56	
<b>Disease In Family Member</b>					0.883
Yes	6	11.11	4	7.41	
No	28	51.85	16	29.63	
<b>Association of Scabies with Malnutrition</b>					0.99
Normal	12	22.22	6	11.11	
1 <sup>o</sup>	15	27.78	11	20.37	
2 <sup>o</sup>	4	7.41	2	3.70	
3 <sup>o</sup>	3	5.56	1	1.85	

**Results:** In our study out of 300 children 191 (63.67%) and 109 (36.33%) were male children and female children respectively. In which 78 (40.84%) male children and 50 (45.87%) female children had history of itching. From table 1 it was clear that 108 (56.54%) male children and 67 (61.47%) female children had clean clothing style. From table 2 it was found that there was no relation between the children who had skin diseases will suffer from scabies. It was statistically non significant as  $p > 0.05$ . In our study it was clear that the children who have scabies disease not necessary family member had diseases. It was also clear that there was no association of scabies with malnutrition in children.

**Review:** In present study prevalence was more in school age children up to 15 years 7.42% this association of age was found to be statistically highly significant. There is a lot of constant exposure and contacts from infected individual due to overcrowding in school in rural areas and immune status in younger children has not sufficiently been attended to protect them from infection. Prevalence of scabies is more common in joint families (4.71%) than nuclear families (1.87%). A survey for scabies was conducted in 14 primaries & 2 high school of one rural block of dakshina Kannada district on the west coast of Karnataka from nov.1982 to march 1983. A total of 5128 (84.9%) out of the 6041 registered children were examined. Prevalence of scabies among children aged 6-15 years was 8.2% prevalence was higher among boys than girls.

**Discussion:** From the data regarding age sex, literacy, symptoms, history of disease was collected. Out of the total population 300 indivisible examine 191 (63.31%) were males and 109 (36.33%) were females among these total of 54 were confirmed cases of scabies giving prevalence rate of 18% and male female ratio 7:1. This sex variation found to be statistically significant probably because of greater exposure and contacts in males as compares to females. In present study prevalence was more in school children up to 12 year. This association of age was found to be statistically highly significant. There is a lot of constant exposure and contacts from infected individual due to overcrowding in school in rural areas and immune status in younger children has not significantly been attended to protect them from infection. Prevalence of scabies is more common in joint families 63% than nuclear families 37%. Scabies is more prevalent among the person with unsatisfactory personal hygiene 40%.

**Conclusion:** This study has shown that the burden of scabies under 12 years of age were preventable disease and were amendable to cost effective and simple treatment, most of scabies affected children fall into grade 1 and 2 malnutrition. Like poor personal hygiene, malnutrition, and overcrowding severely affect the disease. Recommendation

1. Educate the mother, teachers, and anganwadi workers about personal hygiene in children.
2. Prevent overcrowding.
3. Daily washing and changing of cloths and maintain personal hygiene.

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1. Assistant. Professor, Department of Community Medicine JNMC, Sawangi (Meghe), Wardha (MS), email: yogesh.rautz@rediffmail.com
2. Professor and Head, Department of Community Medicine, JNMC, Sawangi (Meghe), Wardha (MS).  
3. Greater Noida (UP), India. email:singh.neel.4@gmail.com
4. Statistical Officer, Public Health Institute, Nagpur (MS), India. email:sushil\_agrekar@rediffmail.com