# THE MAGNITUDE OF SCABIES IN RURRL PRIMARY SCHOOL CHILDREN

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### Summary

One hundred and one (9.02%) of 1119 students in 13 primary schools were found to have scabies. It was more in girls and in children below the age of 8 years. Poverty, poor hygiene, habits of sharing clothes and intimate personal contact play a major role in the spread and persistence of scabies. Treatment and health education with the help of the teachers worked out well. Lack of proper treatment may lead to an epidemic of scabies.

The incidence of scabies varies from time to time. In India, for the past 20 years scabies has persisted as one of the most common diseases. The incidence in any hospital may be more than 5%. Nair et al<sup>9</sup> found scabies among 6% of population, and in 20% of houses. Scabies has been observed during school health service by various authors <sup>9</sup>-<sup>5</sup>. Here an attempt is made to study the prevalence of scabies among rural school children.

#### Materials and Methods

Special attention was given to scabies during our school health visits<sup>5</sup> in the primary schools of Sankarapuram block of South Arcot District, Tamil nadu. The details of age, distribution of lesions and associated diseases were collected. Socio-economic status and family relationship were elicited. Response to treatment during follow-up visits of these cases were made.

#### Results

1119 students were examined in 13 primary schools. Scabies was noticed in 101 students (9.02%). It was more in girls than in boys (Table 1). Two thirds of them were below the age of 8 years. They all belonged to low socioeconomic background. Invariably, at least one other member in their family also had scabies. The literacy rate was low in the families; 90.4% of them being illiterates.

TABLE 1 Scabies in Children

	Number examined	Number with scabies	Percen- tage
Boys	743	51	6.9
Girls	376	50	13.3
Total	1119	101	9.02

Scabetic lesions were distributed along the sides and webs of fingers in 60% of cases. The other sites of distribution were the ulnar borders of the hands, wrists, back of elbows, external genitalia in boys, inner sides of thigh

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and axillary folds. Nearly one fourth (24.7%) of the affected children had secondary infection.

#### Discussion

Nair et al<sup>2</sup> observed scabies in 50% of children below the age of 5 years and 31% in the age group 5 to 14 years. Different school health surveys reported the incidence of scabies which varied between 5 to 20%. In the present series the prevalence is found to be 9.02%. The sex difference is striking, with the girls outnumbering the boys in a ratio of 2:1. A sex difference in the prevalence of scabies was noticed by Mellanby<sup>1</sup>.

An analysis of the cases in relation to the epidemiological background revealed that factors like intimate personal contact, over-crowding in houses, poverty, poor hygiene, habits of sharing clothes and illiteracy all play signifi. cant roles in the persistence of scabies not only in children but also in their family. After studying the epidemic of scabies among Bangladesh refugees in 1971, Bedi<sup>6</sup> concluded that intimate contact and overcrowding are the most significant responsible factors, while socio-economic, hygienic and nutritional factors were only of secondary importance. History of contact was shown to be as high as 85.6% in the series reported by Srivastava et al7.

Any school health service will fail to achieve its objectives unless treatment is provided in relation to the many health conditions of children and on a family basis. Otherwise the problem is likely to recur all too soon<sup>3</sup>. With the help of teachers treatment was given for scabies and deficiency diseases. The method of application of benzyl benzoate was explained to the teachers. The usual causes of failure of treatment such as inadequate and improper treatment, lack of cleanliness and lack of treatment of the infected household

members or the neighbours were explained to the teachers so that adequate steps against such failure could be taken. An attempt was made to educate the children and the parents with the help of the teachers.

When 101 of 1119 students have scabies, the estimated number of scabies among the primary school-age children in a block comes to 1508. If we consider the prevalence of scabies as 6% of the population<sup>2</sup>, left alone without proper treatment, one may have to face an epidemic of scabies<sup>9</sup>, 16 with the consequent expenditure for its management. When there is every chance to prevent this disease why not we prevent this?

With free medical service, proper health education, and general cleanliness, scabies can be eradicated. Mellanby states that Sarcoptes scabii cannot survive more than a few days outside a human host. Treating physician should not be happy by treating the case, but must find out the close contact of family members or neighbours and treat them also and educate them.

## References

- Mellanby K: Scabies, Oxford University Press, London, 1943.
- Nair BKH, Joseph A, Narayana PI and Chacko KV: Epidemic of scabies, Ind J Dermatol Vener, 1973; 39: 101-105.
- Dhingra DC, Anand NK and Gupta S: Health Status of school children of various socio-economic groups, Ind Paed, 1977; 14: 103-106.
- Gangadharan M: School Health Service Programme in Kerala-A rural study, Ind Paed, 1977; 14: 603-607.
- Thirumalaikolundusubramanian P, Palanivelu KM and Frithivi V: Rural schools and Health status of rural primary school children, Ind Paed, 1979; 16: 1097-1100.

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- Bedi TR: Human scabies-A continuing problem, Ind J Dermatol Vener Leprol, 1976, 42: 235-240.
- Srivastava BC, Chandar R, Srivastava VK, Saxena SC, Nandan D, Gupta RP, and Bagga SL: Epidemiological study of scabies and community control, J Com Dis, 1980; 12:134-138.
- 8. WHO: Technical Report series 30, Expert Committee on School Health Service, 1951.
- 9. Shrank AB, and Alexander SL: Scabiesanother epidemic, Br Med J, 1967; 1: 669-671.
- Hurwitz S: Scabies in babies, Am J Dis Child, 1973; 126: 226-229.

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