

Prevalence and Knowledge of Scabies among the rural area of Lahore

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ABSTRACT

Background: Scabies is a preventable skin disease that usually affects lower socio-economic strata and people living in overcrowded surroundings. Scabies is a highly contagious disease and is a significant public health problem in the developing world, with a disproportionate burden in children living in poor, over-crowded tropical areas.

Aims: To find out the prevalence of scabies in a rural area of Lahore and to identify the risk factors associated with the scabies.

Methods: This Cross-Sectional study was conducted from 1st July to 15th August 2018. Non-Probability Convenience Sampling Technique was used.

Results:- The findings of the study reflected that out of 135 households, most (58%) of the families were Nuclear, majority (55%) households comprised of 6-8 family members and almost in half of the families 3 or more family members shared a room. Most (54%) of the respondents had no knowledge regarding scabies, its mode of transmission and preventive measures, but the personal hygienic practices of the families in the area were good. Scabies cases were present in 21% households, while 79% households were free of scabies. The Prevalence for scabies found in the area was 8.8%. Around 58% scabies cases were children <18 years of age whereas 42% were adults. The study found that family size (overcrowding) was significantly associated with occurrence of the scabies.

Conclusions: This study found that 21% households in the area have scabies cases. The study found 8.8% prevalence rate of scabies in Baddoki village, and the disease is more common among children < 18 years of age. Although personal hygiene practices of the families are good in the area, but the respondents have a limited knowledge about the disease, its mode of transmission and preventive measures against it. The study highlighted a need of creating awareness regarding scabies at the community level.

Keywords: Scabies, rural area, contagious disease

INTRODUCTION

Scabies is a highly contagious skin disease, caused by the microscopic mite, *Sarcoptes scabiei*. The condition has worldwide distribution with an estimated incidence of 300 million cases per year. In *most of the rural communities of the developing world, the ectoparasitosis is endemic. It is a highly contagious disease (pruritic dermatitis) which is more common among the poor population in the underdeveloped countries.*

The objectives of the study were to find out the prevalence of scabies in a rural area of Lahore and to identify the risk factors associated with the scabies.

MATERIALS AND METHODS

This study was conducted in a rural area, Baddoki village, Lahore to find out the prevalence and Knowledge about the scabies. A door-to-door survey was conducted in the village to collect data from 135 selected households. Data was analyzed using SPSS version-23 and chi-square test was applied to assess association between various variables.

Sample size: The sample size was calculated by using the following formulae;

$$N = \frac{Z^2 \times p(1-p)}{d^2}$$

n=sample size

p =prevalence

d = margin of error (5%)

Z (confidence interval) = 95% (1.96)

The calculated sample size was 135.

Data Collection:-The team visited the Baddoki village and collected the data from its residents. Door to door survey was conducted in the area; the students approached each household, and a family member preferably mother, or (in her absence) another available family member was interviewed. They were explained the purpose of the study and their verbal consent was obtained. Face to face interview was conducted using the predesigned questionnaire and information was collected from the selected households in the village.

Data presentation and analysis: The data was collected through face to face interviews with the help of the Questionnaire and entered & analyzed using SPSS version-23. Descriptive data was presented in the form of Tables, Pie and Bar charts. Chi-square test was applied to analyze and to find the association between the variables, level of significance (margin of error) was set at 0.05.

RESULTS

This cross sectional community based epidemiological study was conducted in a rural setting Baddoki village to

find out the prevalence of scabies and to determine the risk factors associated with scabies infestation. The participants were the residents of households in Baddoki village. A total of 135 households were included in this study and door to door survey was conducted to collect the data. Information was collected and recorded on a questionnaire through face to face interviews of the respondents. The study results depicts that majority of the households (55%) comprised of 6-8 family members, 30% households consisted of 1-5 family members and only 15% had more than 10 family members. Almost in half of the families, 1-2 family members shared a room, whereas in 38% families, 3-4 members shared one room, and in 13% families 5 or more family members were sharing a room (Table-1).

Table 1: Distribution of households according to number of family members (n=135).

Number of family members	Frequency	%age
1-5 family members	41	30.4
6-10 family members	74	54.8
more than 10	20	14.8
Total	135	100.0
Family members sharing one room		
1-2 members	65	48.1
3-4 members	52	38.5
5 or more members	18	13.3
Total	135	100.0

Table 2: Distribution of respondents according to knowledge of scabies

Characteristics	Frequency	%age
Knowledge about Scabies		
Yes	62	46.0
No	73	54.0
Total	135	100.0
Time when dry itch is more severe		
Throughout the day	15	11.0
At Night	12	9.0
Don't know	108	80.0
Total	135	100.0
Spread of Scabies from person to person		
Yes	62	46.0
No	17	12.6
Don't know	56	41.4
Total	135	100.0
Mode of Transmission		
Contaminated towels	19	14.2
Contaminated clothes	28	20.7
Sharing bed with infected person	15	11.1
Don't know	73	54.0
Total	135	100.0

Table 3: Distribution of Scabies cases according to their Age and Sex (n =91)

Scabies Patients	Frequency (Affected Persons)	%age
Adults	38	41.8
Male	18 (19.8%)	
Female	20 (22.0%)	
Children(< 18years)	53	58.2
Male	29 (31.8%)	
Female	24 (26.4%)	
Total	91	100.0

Other result describes that 54% respondents had no knowledge regarding scabies whereas 46% had some

knowledge about the disease. Majority (80%) respondents did not know when itch becomes more severe, only 9% knew that it becomes severe at night. Around 46% respondents knew that scabies could be transmitted from person to person and 41% didn't know that it could be transmitted from one person to another. Majority (54%) respondents did not know its mode of transmission; some (35%) respondents thought that transmission of scabies is through contaminated clothes or contaminated towels, and rest (11%) thought that it could be transmitted by sharing of bed with an infected person (Table 2). Finally the distribution of scabies patients according to sex and age; around 58% scabies patients were children <18 years while 42% were adults. Almost half of the scabies infested individuals were male and half were female (Table 3).

DISCUSSION

Scabies is a preventable skin disease that usually affects the lower socio economic strata particularly those living in overcrowded surroundings. Sufferers of scabies undergo distress and may even be stigmatized by the society. Scabies can spread from person to person directly by skin to skin contact or indirectly via fomites, such as clothing, bedding and towels. This study was a Cross-sectional, Community based, Epidemiological study conducted in a rural community, Baddoki village, union council Kahna Nau, Lahore. The participants were the residents of households residing in Baddoki village. A total of 135 households were included in this study, selected through convenience sampling technique. A door to door survey of the households was conducted in the village, and face to face interviews of the residents, preferably mothers were held; in their absence another available family member was interviewed. Majority (95%) of the respondents was housewives and didn't engage in any employment.

Most (54%) of them had no knowledge about scabies, its mode of transmission or preventive measures. This is correlated in a research conducted in South Kalimantan in 2015 which showed that 60% respondents had medium knowledge of scabies. This study found that most (54%) of the respondents did not know that scabies could be transmitted from person to person. Although 46% respondents had some knowledge regarding its spread; some (35%) thought that transmission of scabies is through contaminated clothes or other contaminated articles, while others (11%) thought that scabies could be spread from sleeping with an infected person.

Most (61%) of the respondents had no awareness about the prevention of the disease, whereas some (39%) respondents thought that scabies could be prevented. The preventive measures they mentioned were: by taking some preventive medication (21%), by avoiding sharing contaminated articles (6%), by avoiding sharing bed with infected person (5%), and by taking frequent bath (6%).

Good personal hygiene and environmental sanitation are important factors for preventing the disease. Some of the factors that can cause high transmission of the disease are poor personal hygiene, unsanitary environmental conditions, overcrowding, large family size, low education status and individual behavior. This study found that personal hygiene of the families in the study area was

good; family members of most of the households (81%) took bath daily, 95% families used soap while bathing, and majority (84%) of the families ironed their clothes before use. It was also observed in the study area that most of the families didn't use towel after bathing and so practiced no towel sharing. A previous study reflected similar results, that most respondents (63%) had medium personal hygiene practices.

The disease (scabies) is very much related with overcrowding. This study revealed that family size is significantly correlated in the occurrence of scabies cases in the families. This study found that more scabies cases occurred in large size families (> 10 family members) as compared to small size families with 5 or less family members ($p= 0.05$).

Scabies is more prevalent among lower socio economic classes as reported in previous studies. A study conducted in Harripur district found a prevalence rate of 9.13% for scabies and the disease was more prevalent in lower socioeconomic classes than upper and middle classes. Although personal hygienic practices of the families i.e., taking frequent bath, use of soap while bathing, ironing their clothes before use and sharing beds for sleeping, were good in the area, but this study found no significant association between personal hygiene practices of the family members with scabies.

CONCLUSIONS

This study found that 21% households in Baddoki village have scabies cases. The prevalence rate of scabies in the area is 8.8%. The disease is more common among children < 18 years of age. Although the respondents have a limited knowledge regarding scabies, its mode of transmission and its preventive measures, but personal hygiene practices of the families are good in the area.

LIMITATIONS OF THE STUDY

- The sample size was small and the study was limited to one village, therefore the findings could not be representative of the whole population.
- The time to conduct study was limited due to other academic activities of the students for other subjects.
- The female interviewees were reluctant to provide personal information.

RECOMMENDATIONS

- Awareness on scabies infestation, its preventive and control measures should be created at community level through mass media.
- Special health education program on scabies should be conducted for the people attending first level health care facilities.
- Health education about mode of transmission and prevention against scabies should be imparted to school children along with emphasis upon the personal hygiene.

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