

# Scabies in Community of Jamshoro Hills

1. Hussain Bux A. Kolachi 2. Abdul Sattar Channa 3. Aijaz Hussain Memon

1. Prof. of Community Medicine, DIMC, Karachi 2. Sr. Med. Officer, Skin OPD, LUH, Jamshoro 3. Asstt. Prof. of Community Medicine, GMMMC, Sukkur.

## ABSTRACT

**Introduction:** The Muslim Physician Avenzoar described itch mite (*Acarus Scabiei*) in the twelfth century. Problem is worldwide in superpower country like USA 5% to 10% children have Scabies. The situation in other poor countries can be much worse. Frequent changes of underclothing and bedding are control measures of value.

### Objectives:

1. To collect data on prevalence of Scabies infection in community residing in Jamshoro Hills
2. to record Socio-demographic character of patients of scabies
3. To recommend control and prevention strategies based on this research

**Study Design:** Descriptive and cross sectional study.

**Place and Duration of Study:** This study was carried on patients who utilized services of LUH Skin OPD in Jamshoro from 1<sup>st</sup> February 2007 to 1<sup>st</sup> February 2008

**Materials and Methods:** Dermatology Out Patient Department of Liaquat University Hospital Jamshoro. 112 patients were included in study sample.

**Results:** Study was conducted on 112 patients who utilized services of skin OPD at LUH out of these 30(26.2%) were children in the age group of 1-9 years, 38(33.9%) adolescents and teenagers in age group of 10-19 years this was largest age group of scabies patients. while infection was 10.7% to 5.4% in 40-49 years age and above showing low prevalence. Regarding sex of patients suffering from scabies out of 112 patients the ratio of male to female was 50:62 i.e. 50 (44.6 %) and 62 (55.4%). This showed females suffered more.

the occupation of patients showed strong association with scabies diseases occurrence  $P < 0.001$  as out of total 112 patients house wives were 26 (23.2%) students 31(27.7%), laborer 15(13.4%) children 33(29.5%) office Job 7(6.3%) while education was not significant.

**Conclusion:** Study concludes that scabies is common in rural areas of Jamshoro in young age and teenagers. Occupation wise students and house wives had more scabies. Community based cheap treatment of sulphur ointment programme supported by IEC material and free skin camps be promoted

**Key Words:** Mite, Scabies, Sulphur, Ointment.

## INTRODUCTION

The Muslim Physician Avenzoar described itch mite (*Acarus Scabiei*) in the twelfth century<sup>1</sup>. The itch mite, arthropods of medical importance which causes scabies in 1667 became first disease of the man with known cause. The life cycle from egg to adult parasite takes 10 to 15 days, and adult mite lives for one to two months period., it spreads in families therefore is called familial or household infection<sup>2</sup>. Mite can be located in the skin with the help of hand lens. It causes irritation of skin termed as Acaric. Itch mite is found all over the world. Gupta & Kulkarni<sup>3,4</sup>. 5% to 10% children have scabies in USA than situation in other poor countries can be much worse. Frequent changes of underclothing and bedding are control measures of value.

The itch mite scab mite, *Sarcoptes scabiei*, *Acarus Scabiei* is strict ecto-parasite of human being. It lives in his demise, it parasitizes people with poor personal hygiene living in overcrowded and unsanitary conditions, the itch mite is ovoid, grayish, nearly transparent, tortoise-like arthropod. The male is 0.22mm and female 0.4mm long, and itch mite carries four pair of short legs. Itch mite is not vector it causes

of these scabies diseases. It spreads through body contact. Scabies is treated with 25% benzyl benzoate emulsion alternative to benzyl benzoate can be 2.5% to 10% sulfur ointment for four days a cheap remedy<sup>5</sup>. Used bedding, towel, clothing are boiled and laundered. All children of patient's family and child neighbors as well as all patients' schoolmates are simultaneously treated. 25% Benzyl benzoate 40 ml is applied after hot bath to whole body except head and face i.e. below chin no bath is taken till 24 hours. Second course of treatment after 7 day can be repeated in some cases<sup>6</sup>. Common sites of lesion are hands and wrists, exterior aspects of elbow, axillae, buttocks, lower abdomen, feet and ankles, breast in women and genitals in men<sup>3</sup>. It is infestation of Arthropod it is endemic but spreads in epidemic especially in winter<sup>7</sup>. There are many types of skin infections that require clinical care by a physician or other healthcare professional. To prevent scabies one should keep away him or herself from scabies suffering person and those close living together and they have been properly treated and personal hygiene is maintained are viral, bacterial, fungal infection which may occur as co morbidities in same patients and need appropriate diagnosis and treatment<sup>8,9,10,11</sup>.

**MATERIALS AND METHODS**

**Study Design:** The study is descriptive and cross sectional carried on patients who utilized services of Dermatology out patient Department of Liaquat University Hospital Jamshoro

Total 112 Patient was included who were permanent resident and came first time for treatment

**Duration:** Study was conducted from 10 February 2007 to 10 February 2008. Data was collected on especially designed and pre-tested proforma related brief information about parent’s age, sex education, occupation, place of residence whether rural or urban.

**Data Analysis:** SPSS version 14 computer software programme was used for data analysis

**Inclusion Criteria:** Permanent residents of Jamshoro Hills and came first time for treatment /consultation were included in study

**Exclusion Criteria:** Patients who revisited or suffered second or third time were excluded.



**Classical Scabies infection of palm Red spots are burrows of mite**



**Common sites of Scabies Infection**



**Mite –small parasite causing scabies**

**RESULTS**

1. Table 1 Showed age of patients out of 112 patients 30(26.2%) were children in the age group of 1-9 years, 38(33.9%) adolescents and teen angers in thee age group of 10-19 years this was largest age group while infection was 10.7% and 5.4% in 40-49 years age and above 5.4% showing lowest prevalence.

2. Table 2. Showed sex of patients suffering from scabies out of 112 patients the ratio of male to female was 50:62 i.e. 44.6 % to 55.4%. This showed females suffered more.

3. Table 3 showed marital status and data revealed that out of 112 patients 41 (36.6%) were married and 71(44,4%) were unmarried including child age.

4. Table 4 Showing education of patients 56(50.0%) were illiterate, 23(20.5%) were primary pass and 12(10.7%) were university graduate and remaining were post Matric and college educated. The education was statistically insignificant (P>05)

5. Table 5. Showed place of residence rural or urban in our study 99 (88.4%) and 13 (11.6%) were urban showing great proportion of rural residents as Jamshoro is rural and dominated by hilly scattered settlement.

6. Table 6 showed the occupation of patients and out of 112 patients house wives were in 26 (23.2%), students 31(27.7%), labour 15(13.4%) children 33(29.5%) office Job 7(6.3%)

**Table No.1: showing age of Patients suffering from Scabies – age of patients**

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1-9 years	30	26.8	26.8	26.8
10-19 years	38	33.9	33.9	60.7
20-29 years	12	10.7	10.7	71.4
30-39 years	12	10.7	10.7	82.1
40-49 years	6	5.4	5.4	87.5
50-59 years	8	7.1	7.1	94.6
60 & above years	6	5.4	5.4	100.0
Total	112	100.0	100.0	

**Table No.2: showing age of Patients suffering from Scabies – sex of patients**

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Male	50	44.6	44.6	44.6
Female	62	55.4	55.4	100.0
Total	112	100.0	100.0	

**Table No.3: showing age of Patients suffering from Scabies – marital status**

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Married	41	36.6	36.6	36.6
Unmarried	71	63.4	63.4	100.0
Total	112	100.0	100.0	

**Table No.4: showing age of Patients suffering from Scabies – Education of Patients**

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Illiterate	56	50.0	50.0	50.0
Primary	23	20.5	20.5	70.5
Middle	8	7.1	7.1	77.7
Matric	7	6.3	6.3	83.9
College	6	5.4	5.4	89.3
University	12	10.7	10.7	100.0
Total	112	100.0	100.0	

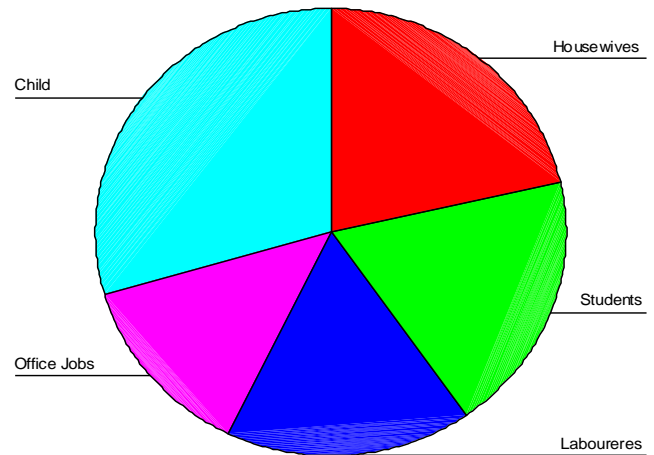
**Table No.5: showing place of residence Rural R and Urban U patients suffering from Scabies - address**

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
R	99	88.4	88.4	84.4
U	13	11.6	11.6	100.0
Total	112	100.0	100.0	

**Table No.6: showing age of Patients suffering from Scabies –Patients Occupation**

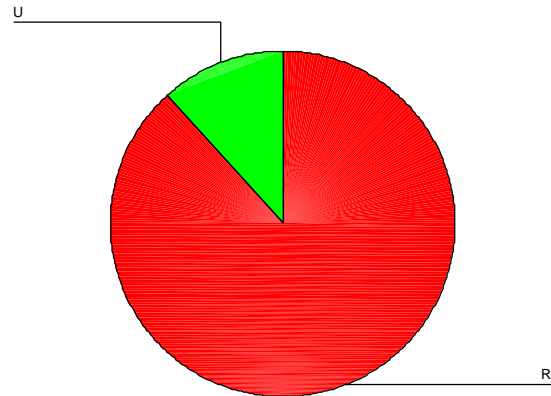
Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Housewives	26	23.2	23.2	23.2
Students	31	27.7	27.7	50.9
Laborers	15	13.4	13.4	64.3
Office Jobs	7	6.3	6.3	70.5
Child	33	29.5	29.5	100.0
Total	112	100.0	100.0	

**Patients Occupation**



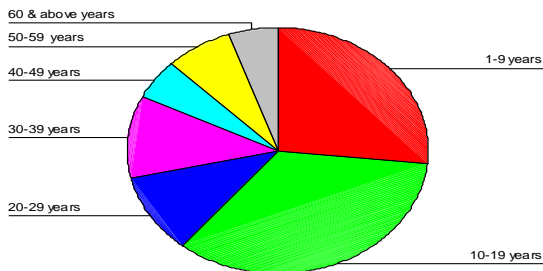
**Diagram 3. Showing Occupation of patient of scabies**

**Address**



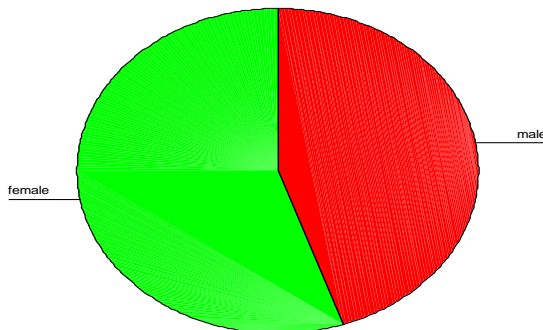
**Diagram 4: Showing place of Residence Rural (R) or Urban of patient of scabies**

**Age of Patient**



**Diagram 1: Showing Occupation of patient of scabies**

**Sex of Patient**



**Diagram2: Showing sex of patient of scabies**

**DISCUSSION**

The scabies is contagious diseases and is common worldwide. It is more in poor communities and where over crowding is prevalent. In Pakistan children ARI and Scabies were mentioned two frequently occurring morbidities and our study also showed same pattern. In USA 5 to 10% children are affected but here 26.2% children were suffering from scabies incidence twice to thrice higher <sup>9</sup>. if this simple diseases is not controlled in west and in east what progress in medical science has taken place this eye opener for us also that after 60 years of independence 26% children have scabies how they will learn and grow in schools homes and play ground naturally unsatisfactory. The education and its primary, secondary, and tertiary form had no association as 50% were those who had got some level of formal education. The most significant feature of our study that occupation was significantly associated and students and housewives were found highly vulnerable

occupation. There is need for community health education campaign and media publicity and series of refresher course on scabies prevention, treatment and control for doctors, nurses, LHWs and general doctors and private practitioners. The cheap and locally made drugs from sulphur compound be made available,<sup>10</sup> Personal hygiene, cloth and bed sharing be discouraged, Whole family treatment where one patient is reported is important. In winter sunlight and proper ventilation of house be advised. Skin camps are good intervention hence be regularly held under Skin department and LUH in future. In study in adjoining district of Jamshoro i.e. Tando Khan hospital Umrani and Baloch found 69% patients were illiterate in males and 92% females were also illiterate while in our study 50% patients were illiterate and 63% were male 37% females while this was 44% male and 64% females, 15% children in their study while in our study 26% were children<sup>12</sup>, In developing countries 10% suffer from scabies but this figure is much higher in both studies.<sup>13,14,15,16,17</sup> The studies in Brazil Bangladesh and Egypt scabies has been reported as public health problem with similar findings<sup>18,19,20,21,22</sup>

## CONCLUSION

Study concludes that scabies is common in rural areas of Jamshoro. And more prevalent in young age. Also in occupation students and house wives have more scabies. Scabies prevention and control and community based treatment programme supported by IEC material and free skin camps and cheap treatment be promoted.

**Acknowledgement:** I acknowledge the cooperation of Dr. Shamshad Ali Surahio consultant Dermatologist LUH, Dr Samia Shaikh deputed in Skin OPD LUH for verification of diagnosis and professional opinion. And photographer Mr. Shaji. And Mr. Mujeeb leghari for data entry and record work. The whole effort was voluntary and academic research

## REFERENCES

1. Iliyas M, et al, editors. Public Health and Community Medicine. 7<sup>th</sup> ed. Time Publisher Urdu Bazar Hashmi Trust Building Karachi: Pakistan; 2006.p.586.
2. Park K. Parks' Textbook of Preventive and Social Medicine, 24<sup>th</sup> ed. Jabalpur India. M/S Banarsidas Bhanot Publisher 1167 PremNagar; 2004.p.555.
3. Lodhi A, Dewan A. Qamar RA, AAA Medical Microbiology. 1st ed. Iabalian Book shop. Allama Iqbal Medical College Lahore; 2005.p.209.
4. Mirza T, Khalid U. Tamoor's Community Medicine. 1st ed. Lahore. Carvan Book House; 2005.p.51.
5. Rao SB. Principle of Community Medicine. 4<sup>th</sup> ed. AITBS Publishers J-5/6 Kishan Nagar-Dehli-110051(India);2005.p.160.

6. Gupta MC, Mahjan BK. Text book of preventive and social medicine. 3<sup>rd</sup> ed. Jaypee Brothers. Medical Publishers (P) Ltd: New Dehli;2003.p.152.
7. Shaheena M, Anjum A. ABC of Public Health and Community Medicine: 1st ed. Shirkat Printing Press Lahore: Pakistan;2006.p.185.
8. Kulkarani AP, Baride JP. Textbook of Community Medicine. 2<sup>nd</sup> ed. Mumbai: Vohra Medical Publication Mumbai;2002.p.248.
9. Iliyas M, et al. editors. Public Health and Community Medicine. 7<sup>th</sup> ed. Time Publisher Urdu Bazar Hashmi Trust Building Karachi: Pakistan; 2006.p.586.
10. David LH, editor. Control of Communicable Diseases Manual. 18<sup>th</sup> ed. American Public Health Association 8001 Street NW: Washington DC 20001-3710;2004.p.426.
11. Health Library [online] 2008 February 13 [cited2008 February 13] Available from:<http://www.lancastergeneral.org/content/gStone.aspx?pageid=P00286>
12. Umrani NM, Baloch GH. Scabies Epidemic in Tando Muhammad Khan Sindh J Pak Assoc of Dermatologist 2009;86.
13. Henderson CA. Skin disease in rural Tanzania. Int J Dermatol 1996; 35: 640-2.
14. Sharma RS, Mishra RS, Pal D, et al. An epidemiological study of scabies in a rural Community in India. Ann Trop Med Parasitol 1984; 78: 157-64.
15. Hegazy AA, Darwish NM, Abdel-Hamid IA, Hammad SM. Epidemiology and Control of scabies in an Egyptian village. Int J Dermatol 1999; 38: 291-5.
16. Currie BJ, Carapetis JR. Skin infections and infestations in Aboriginal Communities in northern Australia. Australia's J Dermatol 2000;41:139-43.
17. Terry BC, Kanjah F, Sahr F, et al. Sarcoptes Scabiei infestation among Children in a displacement camp in Sierra Leone. Public Health 2001; 115: 208-11.
18. Jackson A, Heukelbach J, Feldmeier H. Transmission of scabies in rural Community. Braz Infec Dis 2007;11:386.
19. Heukelbach J, Feldmeier H. Scabies. Lancet 2006; 367: 1767-74.
20. Stanton B, Khanam S, Nazrul H, et al. Scabies in urban Bangladesh. J Trop Med Hyg 1987;90: 219-26.
21. Poudat A, Nasirian H. Prevalence of pediculosis and scabies in the prisoners of Bandar Abbas, Hormozgan province, Iran Pak J Biol Sci 2007;10: 3967-9.
22. Heukelbach J, Feldmeier H. Scabies. Lancet 2006; 367: 1767-74.

### Address for Corresponding Author:

**Dr. Hussain Bux A. Kolachi**

Email: Kolachi83@hotmail.com

Phone # 03332654685