

Original Research Article

Lack of awareness and knowledge among people with scabies in a questionnaire based cross sectional and observational study

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ABSTRACT

Background: Scabies awareness can decrease the disease health burden. The objective was to assess the awareness and knowledge among people with scabies in a questionnaire based cross sectional, observational study.

Methods: Study was questionnaire based, cross sectional, descriptive study. 200 consecutive patients with scabies were enrolled for it.

Results: Of the 200 participants, 125 (62.5%) were males and 75 (37.5%) were females. People of all educational levels were affected from scabies ranging from illiterate 25 (12.5%) to graduates 44 (22%). 95 (47.5%) participants did not know that itching can be because of scabies. 171 (85.5%) participants had no idea of mode of spread of the disease. 199 (99.5%) participants had no knowledge of treatment. None of the participants knew that scabies is preventable.

Conclusions: There is a general lack of awareness and knowledge among the people regarding various aspects of scabies. Increased health awareness programmes with more educational and psychosocial support should be provided to the people. Mass drug treatment of scabies in the area should be provided instead of treating the individual patients.

Keywords: Awareness, Itching, Knowledge, Scabies

INTRODUCTION

Scabies is a common dermatologic problem caused by *Sarcoptes scabiei* var *hominis*.¹ Although the infectious agent is seen worldwide, it is endemic in underprivileged, resource poor areas.² Prevalence of scabies is variable around the world. It has been calculated to be in the range of 0.27% to 46%.³ Every year around 300 million people suffer from scabies.⁴ Incidence in India, ranges from 13% in rural areas and 59% in urban.^{5,6} It infects people of all age groups and can impair the quality of life considerably.⁷ Scabies is highly contagious and affects all races and social classes across the world.⁸

The lesions of scabies often get eczematized and infected by bacteria such as *Staphylococcus aureus* and *Streptococcus pyogenes* and can lead to potentially fatal

and serious indirect complications, including renal failure, invasive bacterial infections and chronic rheumatic heart disease.⁹⁻¹² Various factors which affect transmission includes overcrowding, poor hygiene and social attitude.¹³ Scabies is a remarkable global health burden. The greatest burden has been displayed in East and South East Asia, Oceania and Tropical Latin America.¹⁴ Institutions spend significant amount of money, time and resources to manage the scabies outbreaks.¹⁵

Education of the patients and health care staff is the key to increase the effectiveness of control measures and treatment, to decrease the further spread. Amalgamation of various disease control activities in a coordinated way can be a cost effective and beneficial approach for scabies control.¹⁶

Adequate knowledge will not only prevent the transmission of the disease but will also help to decrease the secondary complication rate and thus the morbidity of the disease.

Only a few studies have been conducted on the scabies awareness and educational component. Purpose of the present study was to examine the knowledge and awareness of the participants about the scabies.

METHODS

This cross sectional, questionnaire based, descriptive study was conducted over a period of 5 months from February 2018 to June 2018 at Pt. Jawahar Lal Nehru Govt. Medical College, Chamba, Himachal Pradesh, India. A total of 200 consecutive patients with the clinical diagnosis of scabies attending the Dermatology OPD, aged more than 12 years were included in the study. Children less than 12 years of age were excluded due to their inability to comprehend or respond to the questionnaire. The questionnaire comprised of questions regarding demographic profile of the patients, their knowledge and awareness about the disease. Verbal informed consent was taken from all the patients and the patients were asked to answer the predesigned, structured questionnaire. A descriptive analysis of the collected data was performed.

RESULTS

Out of 200 participants, 125(62.5%) were males and 75 (37.5%) were females. Mean age of participants was 26.95 years. Most common age group affected was 21-40 years with 90(45%) patients. Average family size found was 4.68. People of all educational levels were affected from scabies ranging from illiterate (12.5%) to graduates (22%) (Table1).

Table 1: Demographic characteristics of study population (n=100).

	Variables	N	%
Age (years)	<20	83	41.5
	21-40	90	45
	41-60	22	11
	>60	05	2.5
Sex	Male	125	62.5
	Female	75	37.5
Educational qualification	Illiterate	25	12.5
	Matric	29	14.5
	Graduate	44	22
	Postgraduate	5	2.5

All patients presented with the rash and itch. Most frequently involved areas were interdigital clefts in 164 (82%) followed by inguinal region in 140 (70%) participants. 199 (99.5%) patients reported nocturnal itch. Only two patients (1%) had complicated scabies, one

(0.5%) had secondary infection and one (0.5%) had eczematization (Table 2).

Table 2: Characteristics of scabies revealed by population under study.

	Variables	N	%
Clinical features	Nocturnal itch	199	99.5
	Burrow	164	82
	Breast fold	57	28.5
	Inguinal/perineal area	140	70
	Axilla	159	79.5
Complications	Yes	02	01
	No	198	99
Types of complications	Secondary infection	01	0.05
	Eczematization	01	0.05
	Family history	77	38.5
	Sharing of beds/clothes /towels	138	69.5

Table 3: Characteristics of itching(n=200).

	Variable	N	%
Types of itching	Stinging	57	28.5
	Burning	58	29.5
	Crawling	02	01
	Pinching	23	11.5
	Worrisome	05	2.5
	Annoying	45	22.5
Aggravating factor	Bothersome	03	1.5
	Heat	119	59.5
	Sweating	44	22
Relieving factor	Stress	06	16
	None	32	03
	Cool environment	15	7.5
Associated factor	Concentration in work	61	30.5
	Bath	104	52
	Heat sensation	136	68
Associated factor	Sweating	03	1.5
	Pain in the pruritic area	40	20

Majority of participants 136 (68%) were staying at home, followed by 56 (28%) who stayed in rented rooms. 57 (28.5%) experienced stinging, 58 (29%) had burning sensation and 45 (22.5%) said itching was annoying. Heat, sweating and stress were reported as aggravating factors, while 16% participants had no aggravating factor. Bathing and concentration in work relieved itching in maximum participants. 16 (8%) participants did not notice any relieving factor. Few participants experienced heat sensation and pain in the pruritic area along with itching (Table 3).

Around 95 (47.5%) participants did not know that itching can be because of scabies. Majority of participants 171 (85.5%) had no idea of mode of spread of the disease, while rest of the participants mentioned direct contact with the infected person, contaminated clothes, blankets, objectives of the infected person, sleeping with infected person as other modes of spread of the disease (Table 4).

Nearly, 40 (20%) participants reported a past episode of scabies in self. Past family history was present in 35 (17.5%). Family of 77 (38.5%) participants was suffering from scabies at the time of filling the proformas. 62 (31%) families had a family size of six or more. Maximum participants 199 (99.5%) had no knowledge of treatment. Interestingly, 4 (2%) participants had false social beliefs like only goat and sheep can have scabies, it is spread from plants, by eating sweets and people working in fields get scabies. Only 62 (31%) participants did not share the beds, towels or clothes.

Table 4: Knowledge about scabies (n=200).

	Variables	N	%
Can scabies cause itching	Yes	105	52.5
	No	95	47.5
Mode of spread of scabies	No knowledge	171	85.5
	Direct contact	16	08
	Contaminated clothes	02	01
	Sexual contact	--	--
	Sharing of bed	03	1.5
False social beliefs		04	02
Treatment knowledge		01	0.5
Preventable disease		00	00
Treatable disease		13	6.5

162 (81%) participants bathe more than three times a week and 148 participants (74%) changed clothes more than thrice a week (Table 5). Surprisingly, none of the participants knew that scabies is preventable. Most of the participants 187 (93.5%) did not know that scabies is a treatable disease.

Table 5: Frequency of bathing and change of clothes (n=200).

	Variable	N	%
Bathing	≥3 days per week	162	81
	<3 days per week	38	19
Changing clothes	≥3 days per week	148	74
	<3 days per week	52	26

DISCUSSION

Despite scabies being a public health problem in the developing countries for years, still there has been little progress in its control around the world.¹⁷ Scabies

transmission via skin to skin contact takes around 20 minutes, so it spreads mainly within the families.¹⁸

This was the first study of this kind conducted in this part of North India. Nearly, half 95 (47.5%) of the participants in this study did not know that scabies can cause itching. The majority 171 (85.5%) did not know mode of spread of the disease. Similar observations were made by Ali A4 previously. None of the participants knew that scabies is preventable. Most of the participants 187 (93.5%) did not know that scabies is treatable also. Above observations can be supported by the fact that poverty, ignorance, low education, poor hygiene, overcrowding increases the vulnerability of the disease.

Only two participants (1%) had complicated scabies, one (0.5%) had secondary infection and one (0.5%) had eczematization. This was in contrast to Nair PA et al who reported eczematization in 50% and secondary infection in 21.56%.¹⁹ Lesser complication rate in this study, may be attributed to the underreporting by the patients due to difficult geography of the region, poverty, distance of the health centres from their homes or because of treatment at primary health care levels or by the quacks (chela).

A sizeable number of participants 62 (31%) did not share the beds, towels or clothes in this study. While earlier studies found it to be one of the major risk factors.²⁰ Maximum participants had frequency of bathing 162 (81%) and changing clothes 148 (74%) more than three times a week. This good practice may be related to education, facilities, plentiful water supply provided to them. Hay et al showed the role of hygiene is controversial.²¹ 18.2% participants had past history of scabies in a previous study by Ali A4 in concordance to this study 40 (20%). 35 (17.5%) had past family history. Recurring episodes in the families can be due to unsatisfactory hygiene, sharing of clothes, improper application of the topical treatment to self or by the whole family.

Family of 77 (38.5%) participants was suffering from scabies at the time of filling the proformas in accordance with the Ali who found family history in 44.4%.⁴ Crowded living conditions also increase the risk of disease transmission.¹³ False social beliefs may be attributed to the ignorance, misconception being spread by the friends, families and ancestors etc. Health education will increase the awareness thereby decreasing the disease burden. This study had few limitations also. Participants were diagnosed only clinically. Authors did not employ any laboratory or microscopic tests for diagnosis. Small sample size was another limitation. Number of cases with secondary complications were less in this study.

CONCLUSION

This study showed that most of the participants lacked knowledge and awareness about the various facts related

to the disease. Healthcare providers need to assess the psychosocial burden of the disease. Increased health awareness programmes with more educational and psychosocial support should be provided to the people. Special consideration should be given to the institutions, hospitals, school children, hostels, madarsaas, prisons, as there are increased chances of cross infestation owing to overcrowding, close contacts. Mass drug treatment should be provided instead of treating the individual patients to decrease the risk of reinfestation and prevalence at the community level. Without proper measures and a coordinated approach comprising of treatment and adequate knowledge, awareness regarding disease, scabies will continue to be an endemic disease in the developing countries.

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