

Clinical Profile and Quality of Life in Scabies Patients-A Study in Enam Medical College and Hospital, Savar, Dhaka, Bangladesh

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Abstract

Background: Scabies is a common skin disorder. It is caused by a mite called *Sarcoptes scabiei*. Hundreds of millions of people suffer from infestation in disadvantaged urban and rural communities worldwide. Scabies can lead to stigmatization, depression, insomnia, and may other significantly effects on the quality of life. **Objectives:** The aim of the study was to find the demographic profile, clinical morphology and quality of life in patients suffering from scabies. **Methods:** This was a prospective, non-interventional, hospital-based, cross-sectional study undertaken from January 2021 to December 2021 at the dermatology department of Enam Medical College & Hospital, Savar, Dhaka, Bangladesh. We have 314 patients of scabies who were enrolled in the study. Diagnosis of scabies was made by the presence of typical lesions in the site of predilection, nocturnal itching, and occurrence of similar complaints in the contact person. Demographic details, clinical findings, past history and family history was recorded in a proforma. Questionnaire about quality of life was given to the patients and a detailed analysis was done. **Results:** Out of 314 patients 81.85% were male and 18.15% were female; 29.30% of our patients were below 10 years and more than half (56%) of the patients were below 18 years of age. Among the patients age group between 5 to 20, the most reported problem was the loss of school days (40%), followed by difficulty in participating in play & recreational activities (29.76%); these are because of being unacceptance & feeling of embarrassment by their friends & buddies. Most of them reported no or minimal effect on their quality of life although itching was a problem that distracted concentration in day time and causing some sleep disturbance at night. None of these patients had severely impaired quality of life. Mothers of the children, particularly the children age below 5 years reported sleep disturbance for both child & with whom they are sleeping in the same bed. Among the adults, (92%) patients experienced difficulty in working at the work place, 78.79% had feeling of embarrassment, social relationship was affected in nearly 50% of patients, sexual relationship was also affected in 50% of patients. 36.96% of the patients had mild depression. **Conclusions:** Scabies moderately affected the quality of life of the patients in the present study in the form of feeling of embarrassment and social isolation due to stigmata and shame associated with this disease. All these findings were more frequently observed among adult patients as compared to children. In our study scabies mildly affected the quality of life.

Keywords: Scabies, *Sarcoptes scabiei*, Quality of life, Embarrassment, Social isolation

Introduction

Scabies is an infestation of the skin by the human itch mite (*Sarcoptes scabiei var. hominis*). The microscopic scabies mite burrows into the upper layer of the skin where it lives and lays its eggs. Symptoms of scabies include: Severe itching, most often at night, rashes, often between the fingers and toes, undersides of the wrists, arm pits, women's breasts, and buttocks, sores on the skin from scratching and digging, thin lines (burrow marks) on the skin and babies will likely have a rash all over the body, especially on the head, face, and neck, with sores on the palms and soles. Scabies doesn't affect the face except in babies and in people with crusted scabies. It is a common contagious parasitic skin disease and a public health problem, mainly in tropical and subtropical countries [1,2]. Hundreds of millions of people suffer

from infestation in impoverished urban and rural communities worldwide [3-6]. Outbreaks of scabies in closed groups have been reported particularly from high income countries, but the disease is more common in resource-poor communities in low- and middle-income countries in tropical climate zones [7-9]. High prevalence and re-infestations in endemic settings are correlated with armed conflicts, homelessness, crowding, and communal use of clothes, beds, and pillows [10,11]. The global prevalence of scabies estimated is 300 million cases [12], with large variations between countries. In Bangladesh, no up-to-date robust prevalence data exist, but from hospital record and studies it was found that 9% to 16% of patients consulted to the dermatology out-patient department diagnosed as having scabies [13]. Scabies affected in the interdigital spaces as shown in **FIGURE 1**.

In resource-rich communities, scabies tends to occur in cyclical epidemics, particularly within institutional-living situations such as nursing homes, or the army [14-15]. There is some seasonal variation with incidence being greater in the winter than the summer, perhaps related to the tendency for more indoor overcrowding in colder weather [16]. In resource-poor communities, the occurrence pattern is quite different with the disease being endemic in many areas [17]. For example, the prevalence of scabies among the remote Aboriginal communities of Northern Australia is around 50% in children and 25% in adults [18]. As it is not possible to eliminate scabies, morbidity control is the only option to reduce the disease burden [19]. Scabies affected the abdomen as shown in **FIGURE 2**.

Morbidity is not only reflected by the degree of clinical pathology but also includes the emotional aspects of a skin disease. Both types of morbidity may reduce the quality of life. Over the past few years, there has been an increasing interest in assessing the quality of life of patients with skin diseases as well as in the development of methods of assessment [20]. Between 18% and 70% of people are reported to be affected in resource-limited communities in India, on south Pacific islands, and in Australian Aboriginal communities [1,8,21], with severe morbidity being common, such as abscess formation, lymphadenopathy, and Post-streptococcal glomerulonephritis [8,13,22,23]. Skin diseases like scabies has detrimental effect on the quality of life of patients. This psychosocial aspect of skin disease has important implications for optimal management of patients with scabies. Although dermatologists and other clinicians have long recognized the impact of skin disease on a patient's life, it is only recently that quality of life measures have been used as assessment parameters in the management of skin diseases [24,25]. The aim of the study was to find the demographic profile, clinical morphology and quality of life in patients suffering from scabies

Materials and Methods

This was a prospective, non-interventional, hospital-based, cross-sectional study undertaken from January 2021 to December 2021 at the



Figure 1. Scabies affected in the interdigital spaces



Figure 2. Scabies affected the abdomen

dermatology department of Enam Medical College & Hospital, Savar, Dhaka, Bangladesh. 314 consecutive patients of scabies were enrolled in the study. Diagnosis of scabies was made by the presence of typical lesions in the site of predilection, along with the presence of other symptoms.

Exclusion criteria

Pregnant and lactating females and patients having atypical skin lesions and crusted scabies were excluded from the study. Patients who had other chronic skin or systemic disease like psoriasis, atopic dermatitis, and diabetes mellitus were also excluded from the study.

Relevant data on demographic details, clinical findings, family history and relevant past history were noted in predesigned proforma. A pre-validated questionnaire about the quality of life impairment was distributed to the patients so as to be filled as a part of the study.

Statistical analysis

Data was compiled in Microsoft excel after coding and was analyzed using SPSS 20 version software. Qualitative data were represented by frequencies and proportions and analyzed.

Results

Out of 314 patients 81.85% were male and 18.15% were female. Among them, more than half (56%) of the patients were below 18 years of age (29.30% were below 10 years); the mean age of the study population was 35.18 ± 2.44 . Patients' distribution according to their age and sex are shown in **TABLE 1** and according to their occupation are shown in **TABLE 2**.

100% patients presented with skin lesions and with nocturnal exacerbation of itching; 39.50% gave positive family history of scabies and 28.66% had secondary infection. **TABLE 3** shows the clinical profile of scabies patients.

The most common lesion was papule (95.22%) which is followed by excoriation (81.53%). Most common site involved was interdigital spaces (81.21%) followed by genitalia (45.22%) and abdomen (40.45%). 50% of the female patients had lesions around the areola. Distribution of patients according to their nature of skin lesions is presented in **TABLE 4** and distribution of patients according to the site of lesion is shown in **TABLE 5**. Multiple sites were involved in majority of the patients.

Age (years)	Male	Female	Total	Percentage
Below 5 years	23	5	28	8.92
5 to < 10 years	50	14	64	20.38
10 to < 18 years	70	14	84	26.75
18 to < 30 years	66	17	83	26.43
30 to < 40 years	33	4	37	11.78
40 to < 50 years	10	1	11	3.50
50 to < 60 years	3	1	4	1.27
60 years and above	2	1	3	0.96
Total	257	57	314	100.00

Occupation	Number of patients	Percentage
Student	76	24.20
Worker, Farmer, Laborer	64	20.38
Housewife	60	19.11
Service holder	40	12.74
Non-school age	34	10.83
Business	23	7.32
Others	13	4.14
Retired	4	1.27
Total	314	100.00

Complaints	Frequency	Percentage (%)
Nocturnal aggravation of itching	314	100
Skin lesions	314	100
Family history	124	39.49
Secondary infections and other complications	90	28.66
Past history	59	18.79

Type of skin lesion	n = 314	Percentage
Papular lesion	299	95.22
Excoriations	256	81.53
Pustule	90	28.66
Eczematisation	87	27.71
Nodules	31	9.87
Vesicles	23	7.32

Site	Frequency	Percentage
Fingers and Interdigital spaces	255	81.21
Genitalia	142	45.22
Abdomen	127	40.45
Palm and dorsum of Hands	115	36.62
Groin	96	30.57
Axilla	92	29.30
Forearm	90	28.66
Arm	67	21.34
Wrist	58	18.47
Gluteal area	58	18.47
Trunk	40	12.74
Legs	27	8.60
Areola, in case of female	28	50% of the female patients.

Age (years)	Number	Feeling embarrassed	Affected studies	Affected playing activities	Experienced teasing	Affected friendship
Below 5 years	28	0	0	15	18	13
		0%	0%	53.57%	64.29%	46.43%
5 to < 10 years	64	35	26	21	34	42
		54.69%	40.63%	32.81%	53.13%	65.63%
10 to < 20 years	84	58	34	25	27	45
		69.05%	40.48%	29.76%	32.14%	53.57%

Age (years)	Number	Feeling embarrassed	Affected studies	Affected work	Depression and other psychological effects	Affected friendship	Affected sexual relationship
20 to < 30 years	83	70	15	30	36	46	37
		84.34%	18.07%	36.14%	43.37%	55.42%	55.42%
30 to < 40 years	37	30	NA	29	15	19	23
		81.08%	0.00%	78.38%	40.54%	51.35%	51.35%
40 to < 50 years	11	9	NA	7	0	0	7
		81.82%	0.00%	63.64%	0.00%	0.00%	0.00%
50 years and above	7	0	NA	5	0	0	4
		0.00%	0.00%	71.43%	0.00%	0.00%	0.00%
Total	138	109	15	71	51	65	71
		78.99%	10.87%	51.45%	36.96%	47.10%	51.45

Mothers and the older children complaint that patients became irregular in the school and they had problem with social interaction like playing with other children & their friendship were mostly affected. They also sometimes became the victim of teasing by friends and others. The older children also felt embarrassed while they were in school and while involved in other social activities. The effect of scabies on children's quality of life is summarized in **TABLE 6**.

In case of adult populations (age >18), nearly 80% (78.99%) patients reported that they felt embarrassed and half of the patients reported that

the condition affected their work (51.45%), social interaction (47.10%) and their sexual life (51.45%); 36.96% of our adult patients suffered from depression or other psychological problems in some part of the disease process. The effects of scabies on adult patients' quality of life are summarized in **TABLE 7**.

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. Scabies transmission via skin-to-skin contact takes around 20 minutes, so it spreads mainly within the families [26]. In this study we found nearly 75% of our scabies patients are between 5 to 30 years of age; the most common age groups affected were in the age group 10 to 18 years (26.75%) and 18 to 30 years (26.38%). Little different pattern was observed in few other studies [27,37]. All of our patients presented with itching with nocturnal aggravation and almost all of our patients had itchy papules; which is consistent with other studies in this context [38,39]. 28.66% of our scabies patients presented with secondary infection and other complications, but it may be quite high as found in some others studies done elsewhere [40, 41]. Most common site involved was interdigital spaces (81.21%) followed by genitalia (45.22%) and abdomen (40.45%). These findings are in concordance with the study done by Nair et al [9]. In the study done by Das et al genitalia were the commonest site followed by interdigital spaces [42]. Furthermore, scabies can lead to stigmatization, depression, insomnia, and significant direct and indirect financial costs and may affect the quality of life; one third of our adult patients suffered from depression and psychological effects in some period of the disease [43]. It was observed in the present study that the two prime activities of children i.e., mainly outdoor sports/games and academics/study were adversely affected owing to intense itching of the infected sites in 30% and 40% children respectively. This sustains that itching in scabies definitely hampers the quality of life in children. In our study, out of 138 adult patients 78.99% patients had reported that they were feeling embarrassed, social relationship was affected in 82.5% of patients, sexual relationship, friendship and work activities was affected in 50% of patients and 36.96% of the patients had depression and psychological effects. Similar findings were seen in study done by Nair et al where the major domain affected was work activity in 74.2% cases followed by feeling of embarrassment in 64.5% patients [9].

Conclusions

Scabies moderately affected the quality of life of the patients in the present study in the form of feeling of embarrassment, stigma and shame associated with this disease. All these findings were more frequently observed among adult patients as compared to children. More attention should be paid to this contagious disease, its sequelae and concomitant morbidities despite the disease not being life threatening. Feeling of embarrassment, difficulty in work place, social stigma and depression were frequently observed in patients with scabies. In our study scabies mildly affected the quality of life. Early diagnosis along with pharmacological intervention and proper patient counselling and education may be an effective strategy to improve quality of life among scabies patients.

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