

Prevalance of Skin Disorders in Adult in a Tertiary Care Hospital

DOI: dx.doi.org

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Received: 28 Jan 2024
Accepted: 4 Feb 2024
Published: 14 Nov 2024

Published by:
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ABSTRACT

Introduction: The increasing frequency of skin diseases worldwide has been attributed to global warming and climate changes, making it crucial to understand disease patterns for effective healthcare planning. Despite the high prevalence of skin diseases in developing countries, they are often overlooked in public health strategies. **Objective:** To assess the pattern of skin diseases in adult patients attending the outpatient department of Dermatology and Venereology at the National Institute of Diseases of the Chest and Hospital, Bangladesh. **Methods & Materials:** A cross-sectional study was conducted from July 2022 to June 2023, involving 120 adult patients aged 41-70 years. Patients with skin conditions present for at least one month were included, while those with diseases lasting more than one year or with severe complications were excluded. Socio-demographic profiles and disease patterns were recorded using a predesigned questionnaire. **Results:** The study population comprised 48% female and 52% male patients, with a mean age of 60±10 years. Among infective diseases, scabies (14.17%) and tinea infection (12.50%) were most prevalent. In non-infective conditions, eczema (15.00%), miscellaneous and mixed diseases (14.17%), and acne vulgaris (10.00%) were most common. Overall, 55% of patients presented with non-infective skin diseases, 37% with infective diseases, and 8% with both conditions. **Conclusion:** The study revealed a higher prevalence of non-infective skin diseases compared to infective conditions in Bangladesh, with eczema and scabies being the most common disorders in their respective categories. These findings underscore the importance of developing targeted healthcare interventions and improving access to dermatological services in developing countries.

Keywords: Skin diseases, Bangladesh, dermatology, infective diseases, non-infective diseases

(The Planet 2023; 7(2): 218-220)

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INTRODUCTION

The incidence and occurrence of skin illnesses are thought to be rising daily around the world as a result of present global warming and regular climatic fluctuations. In light of this, studies to identify the trends in skin conditions are increasingly crucial for effective health care management and planning. Economic, ethnic, environmental, sanitary, and social issues all influence the pattern, which typically varies between nations and within a country's various areas^[1]. Though there is a lack of information on the pattern of skin disorders, it is crucial to keep in mind that skin symptoms may be an indicator of an interior illness.

In addition to aiding in patient care, early detection of skin conditions helps stop the spread of infectious illnesses. Skin problems can be less common in any society with improvements in environmental cleanliness, public education, and healthy eating^[1]. In a study it was reported that, skin diseases can affect more than 60% of the general population^[2]. Despite the fact that some skin conditions are quite common in poor nations, their public health programs

do not view them as serious health issues^[3]. Types of skin diseases are influenced by race, genetics, religion, nutrition, occupation and habits^[4]. The incidence of specific skin disorders in certain locations is also influenced by geographical variables, such as the season and climate. distinct regions of Bangladesh have very distinct climates, religions, socioeconomic situations, and cultures^[5]. Along with hot and muggy weather, several skin illnesses including scabies, pyoderma, and fungal infections are also caused by a lack of access to water, poor hygiene, overcrowding, and high levels of interpersonal contact in underdeveloped nations^[6]. In a study it was reported that, in developing, countries, 70% of people suffer from skin diseases in some tenures of their lives^[7]. Many patients in impoverished nations lack access to basic skin care treatments, while 15% of patients in wealthy nations turn to conventional home remedies before seeking appropriate medical attention^[8]. In Bangladesh, among people, the epidemiology of this disease is poorly understood^[9]. Even in Ghana, infectious skin illnesses are more prevalent than non-infectious ones in the Indian

subcontinent^[10-12]. However, pre-malignant and malignant skin illnesses are more prevalent in the UK, whereas dermatitis is more prevalent in Egypt, Denmark, and Singapore^[13,14]. It is crucial to raise knowledge about the causes, trends, and prevention of skin disorders in order to lessen the burden of these conditions^[15].

METHODOLOGY

This cross-sectional study was conducted in the outpatient department of Dermatology and Venereology in National Institute of Diseases of the Chest and Hospital, Bangladesh from July 2022 to June 2023. In total 120 adult skin diseases patients attended the OPD of the mentioned hospital were included as the study population. According to the inclusion criteria of this study, patients of several age either male or female suffering from any kind of skin disease for at least one month were included as the study subjects. On the other hand, patients with skin disease for more than one year and patients with other major complications and severely ill were excluded from the study. Besides these, patients of under age from 41 years and more than 70 years were excluded from the study. This study was approved by the ethical committee of the mention hospital. Proper written consents were taken from all the participants before data collection. Proper diagnosis from reputed and government registered diagnostic centers were performed. Cases with doubtful diagnosis were excluded from the study. The socio-demographic profiles and diseases pattern were recorded in a data sheet. A predesigned questioner was used in data collection. All data were collected, processed and analyzed by using MS Office and SPSS version 25 programs as per need.

RESULTS

Table I shows that the study data revealed a gender distribution pattern across two years (2022-2023). In 2022, there were 57 female patients (47.9%) and 58 male patients (48.0%). In 2023, the numbers slightly increased to 58 female patients (48.0%) and 62 male patients (50.0%).

Table - I: Distribution of the patients according to year and sex (n=120)

Year	Female		Male	
	n	%	n	%
2022	57	47.9%	58	48.0%
2023	58	48.0%	62	50.0%
Total	111	48.0%	120	120%

Table II shows that the mean age of the patients was 60 ± 10 years. Patients were categorized into two age groups: 41–60 years and >60 years. In the 41–60 years age group, females accounted for 52%, while males accounted for 48%. In the >60 years age group, females made up 51%, and males constituted 49%.

Table - II: Distribution of the patients according to age and sex (n=120)

Age groups (years)	Female		Male		Mean±SD=60±10
	n	%	n	%	
41-60 yrs.	31	52%	29	48%	
>60 yrs.	30	51%	30	49%	
Total	61	51%	59	49%	

Table III shows that among the infective diseases, scabies was the most prevalent condition, affecting 17 patients (14.17%), followed by tinea infection with 15 patients (12.50%). Other common conditions included pyoderma (5.00%) and pityriasis versicolor (3.33%). Less frequently observed diseases were STD and herpes zoster (2.50% each), warts and herpes simplex (1.67% each), and candidiasis and chickenpox (0.83% each).

Table - III: Distribution of patients according to type of infective disease (n=120)

Infective Diseases	n	%
Scabies	17	14.17%
Tinea infection	15	12.50%
Pyoderma	6	5.00%
Pityriasis versicolor	4	3.33%
STD	3	2.50%
Herpes zoster	3	2.50%
Warts	2	1.67%
Herpes simplex	2	1.67%
Candidiasis	1	0.83%
Chicken Pox	1	0.83%

Table IV shows that among non-infective diseases, eczema was the most commonly observed condition, affecting 18 patients (15.00%), followed by miscellaneous and mixed diseases (14.17%) and acne vulgaris (10.00%). Other conditions included urticaria (6.67%), psoriasis (5.00%), and nevoid disorders (4.17%). Rarely occurring conditions included alopecia (3.33%), melasma and ichthyosis (2.50% each), vitiligo and lichen planus (1.67% each), and drug eruptions, chronic bullous disease, and connective tissue disease (0.83% each). No cases of photosensitivity were reported in the sample.

Table - IV: Distribution of the patients according to the type of non-infective disease (n=120)

Non-Infective Diseases	n	Percentage (%)
Eczema	18	15.00%
Miscellaneous & mixed	17	14.17%
Acne vulgaris	12	10.00%
Urticaria	8	6.67%
Psoriasis	6	5.00%
Nevoid disorder	5	4.17%
Alopecia	4	3.33%
Melasma	3	2.50%
Ichthyosis	3	2.50%
Vitiligo	2	1.67%
Lichen Planus	2	1.67%

Drug eruptions	1	0.83%
Chronic bullous disease	1	0.83%
Connective tissue disease	1	0.83%
Photosensitivity	0	0.00%

DISCUSSION

The aim of this study was to assess the pattern of skin diseases in adult patients attending the OPD of dermatology and venereology in the National Institute of Diseases of the Chest and Hospital, Bangladesh. In this study, among total 120 participants, 48% were male whereas the rest 51% were female. So female participants were dominating in number. The male-female ratio of our study was about similar with many other studies^[16-18]. In this study, majority of the participants (55%) were with non-infective skin diseases. Besides this, 37% were with infective skin diseases and the rest 8% were with both infective as well as non-infective skin diseases. For infective dermatoses, as reported in different studies, it is clear that, fungal or bacterial infections are the most typical infective skin disorder, instead of parasitic and protozoal infestations^[19,20]. Among infective skin diseases group patients, the highest number of patients were with scabies which was found in 14.17% cases. Besides this, the frequencies of tinea infection, pyoderma, pityriasis versicolor, STD and herpes zoster were also noticeable. In some studies of this sub-continent, fungal infection and/or superficial fungal infections are very consistent^[11]. The frequencies of deep fungal infections are very lower than that of some other studies as it is not very common in Bangladesh^[21]. In this study, among non-infective skin diseases group patients, the highest number of patients were with eczema which was found in 15.00% patients. In addition, there were notable prevalences of psoriasis, urticaria, alopecia, nevoid disease, and "miscellaneous & mixed" acne vulgaris. Eczema and photodermatitis in our study are rather comparable to many previous studies on allergic skin conditions, however they differ greatly from certain other studies^[11,16,17,22].

Conclusion and recommendation:

This study highlights the predominance of non-infective skin diseases over infective conditions in Bangladesh, with eczema and scabies being the most prevalent disorders respectively. A balanced gender distribution suggests equal susceptibility to skin disorders across both sexes. The findings emphasize the influence of climate, socioeconomic conditions, and hygiene standards on skin disease patterns.

These insights can guide the development of targeted healthcare interventions and improved dermatological services. Future research should explore environmental and socioeconomic factors, while public health initiatives should focus on awareness programs and better access to dermatological care.

Conflict of interest: None

Funding: Self

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