

Frequencies of Skin Diseases Patients Attended in a Tertiary Care Hospital

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Abstract

Background: Skin conditions exhibit regional variations in patterns. The South East Asian region has witnessed an increase in the severity of skin disorders. Many variables can affect the many types of skin diseases, and the resulting morbidities have a significant impact on both the individual and the community.

Aim of the study: The goal of this study is to observe the distribution pattern of patients who visit the department of dermatology and venereology, TMSS Medical College, Bogura, Bangladesh.

Methods: A descriptive cross-sectional study was conducted in the department of dermatology and venereology, TMSS Medical College, Bogura, Bangladesh, from January 2021 to December 2022. The International Classification of Diseases (ICD-10) was used to classify skin conditions. A clinical diagnosis was made for each of the 200 study participants after an examination and review of their medical history. All collected data was analyzed in SPSS 11.5 using descriptive statistics.

Results: The majority of the participants 105 (52.5%) were females. Most of the participants (41.5%) were aged 18-40 years. Of the 55 infectious conditions, fungal and parasitic were the most common diseases, 29 (52.7%) and 18 (32.7%). Of 135 non-infectious conditions, eczema was the most common disorder (N=42, 31.1%). Among 200 patients, non-infectious skin disease pattern (N=135, 68%) exceeded the prevalence of infectious skin diseases (N=55, 27%) and both infectious and non-infectious skin diseases (N=10, 5%).

Conclusion: This study provided a comprehensive definition of the various kinds of skin diseases. Non-infectious skin diseases were more prevalent, according to the study.

Keywords: Skin diseases, Non-infectious, Participants, Eczema.

I. Introduction

Skin diseases are common in underdeveloped nations, where they contribute significantly to morbidity and the cost of healthcare [1, 2]. According to estimates, skin conditions rank as the fourth most common cause of disability and non-fatal disease burden globally [3,4]. Patterns may differ depending on the age, gender, socioeconomic background, level of hygiene, genetics, weather conditions, and even on marketing strategies [5]. Their distribution tends to vary across various countries and occasionally even within the same city [6, 7]. Free dermatological camps are an excellent approach to gauge community awareness of the prevalence of skin diseases, the disease pattern, and the standard of primary care, particularly in developing nations like Bangladesh. They make it easier for middle-class and lower-class people to receive a correct diagnosis for their skin problem and give researchers access to more representative data for their research [8]. The burden of skin illnesses is borne in part by Bogura, one of Bangladesh's largest urban areas. There are not enough studies, particularly from private institutions, in this area of the nation about the distribution and pattern of skin conditions. The demand for more of these investigations persists because there has only been one prior study conducted in a private tertiary care hospital in Bogura. We therefore set out to determine the trends in skin diseases that affected various age groups in a private tertiary care hospital in Bogura in order to develop disease prevention strategies and raise awareness of improved control and management.

II. Methodology

A descriptive cross-sectional study was conducted in the department of dermatology and venereology, TMSS Medical College, Bogura, Bangladesh, from January 2021 to December 2022. The International Classification of Diseases (ICD-10) was used to classify skin conditions. Fungal, viral, bacterial, and parasitic illnesses were among the infectious disorders. Eczemas, pigmentary disorders, acne, autoimmune diseases, hair issues, and other conditions were among the non-infectious diseases. A clinical diagnosis was made for each of the 200 study participants after an examination and review of their medical history. In the case of categorical variables such as age, gender, socioeconomic status, occupation, and skin disease pattern, percentages and frequencies were calculated. The age of the patients was determined as mean \pm SD. The relationship between the pattern of skin illnesses and gender, age groups, socioeconomic position, and occupation was investigated using the chi-square test and Fisher's exact test. A significant p-value is defined as ≤ 0.05 . All collected data was entered into a Microsoft Excel Work Sheet and analyzed in SPSS 11.5 using descriptive statistics.

III. Result

A total of 200 participants were screened when attending the hospital. Of these, 105 (52.5%) were females and 95 (47.5%) were males (Table-1). The mean age of the patients was 25.04 \pm 12.67 years. The majority of the population was in the age group of 18-40 years with 83 cases (41.5%), followed by 40-70 years group with 44 cases (22%), <12 years group with 37 cases (18.5%), 12-18 years group with 36 cases (18%) (Table-2). The comparison of the pattern of skin diseases with age of the participants showed significant association of pattern of disease with age p-value <0.001 (Table-2) and the comparison of pattern of skin diseases with socio-demographic characteristics of the participants with socioeconomic status p-value <0.001 (Table-3). Of the 55 infectious conditions, fungal and parasitic were the most common diseases, 29 (52.7%) and 18 (32.7%) respectively, while viral infections were found in 5 (9.1%) and bacterial in 3 (5.5%) of the infectious dermatosis. Of 135 non-infectious conditions, eczema was the most common disorder (N=42, 31.1%), followed by acne in (N=30, 22.2%) cases, pigmentary disorders in (N=23, 17%) cases, hair loss in 15 (11.1%), and papulosquamous disorders in (N=10, 7.4%), whereas miscellaneous non-infectious diseases were found in 15 (11.1%) cases (Table-4). Among 200 patients, non-infectious skin disease pattern (N=135, 68%) exceeded the prevalence of infectious skin diseases (N=55, 27%) and both infectious and non-infectious skin diseases (N=10, 5%) (Figure-1).

Table-1: Comparison of pattern of skin diseases with sex of the participants (N=200)

	Total	Pattern of skin disease			P-value
		Infectious (N=55) N (%)	Non-infectious (N=135) N (%)	Both (N=10) N (%)	
Sex					
Female	105	28 (26.7)	72 (68.6)	5 (4.8)	0.110
Male	95	27 (28.4)	63 (66.3)	5 (5.3)	

Table -2: Comparison of pattern of skin diseases with age of the participants (N=200)

	Total	Pattern of skin disease			P-value
		Infectious (N=55) N (%)	Non-infectious (N=135) N (%)	Both (N=10) N (%)	
Age in years					
<12	37	19 (51.4)	16 (43.2)	2 (5.4)	< 0.001*
12-18	36	6 (16.7)	28 (77.8)	2 (5.6)	
18-40	83	21 (25.3)	56 (67.5)	6 (7.2)	
40-70	44	9 (20.5)	35 (79.5)	0	

Table-3: Comparison of pattern of skin diseases with socio-demographic characteristics of the participants (N=200)

	Total	Pattern of skin disease			P-value
		Infectious (N=55) N (%)	Non-infectious (N=135) N (%)	Both (N=10) N (%)	
Socio-economic status					
poor	63	36 (57.1)	23 (36.5)	4 (6.3)	< 0.001*
Middle class	129	18 (14)	111 (86)	0	
Upper middle class	8	1 (12.5)	1 (12.5)	6 (75)	
Occupation					
Employed	27	9 (33.3)	17 (63)	1 (3.7)	0.710
Unemployed	173	46 (26.6)	118 (68.2)	9 (5.2)	

Table-4: Frequency and proportion of skin diseases among the participants (N=200)

Infectious diseases (N=55)	N (%)	Non- infectious diseases (N=135)	N (%)	Both (N=10)	N (%)
Fungal (N=29)		Eczema (N=42)			
Tinea Cruris	11 (37.9)	Nummular eczema	4 (9.5)	Fungal/Hair fall	2 (20)
Tinea Corporis	8 (27.6)	Hand eczema	10 (23.8)	Parasitic/Acne	1 (10)
Tinea Capitis	2 (6.9)	Atopic dermatitis	2 (4.8)	Fungal/Hair fall/Acne	1 (10)
				Parasitic/Pigmentary	1 (10)
Tinea Pedis	1 (3.4)	Seborrhoeic dermatitis	10 (23.8)	Fungal/Parasitic/Pigmentary	1 (10)
TineaMannum	1 (3.4)	Contact dermatitis	12 (28.6)	Parasitic/Eczema	1 (10)
Candidiasis	1 (3.4)	Pityriasis alba	2 (4.8)	Viral/Pigmentary	1 (10)
Pityriasis versicolor	2 (6.9)	Stasis eczema	1 (2.4)	Parasitic/hair fall	1 (10)
Onychomycosis	3 (10.3)	Lichen simplex chronicus	1 (2.4)	Fungal/eczema	1 (10)
Bacterial (N=3)		Pigmentary (N=23)			
Folliculitis	1 (33.3)	Vitiligo	5 (21.7)		
Furunculosis	1 (33.3)	Melasma	17 (73.9)		
Abscess	1 (33.3)	Post inflammatory hyperpigmentation	1 (4.3)		
Viral (N=5)		Acne (N=30)			
Warts	5 (100)	Acne Vulgaris	30 (100)		
Parasitic (N=18)		Papulosquamous disorders (N=10)			
Scabies	14 (77.8)	Psoriasis	3 (30)		
Pediculosis capitis	4 (22.2)	Lichen planus	5 (50)		
		Pityriasisrosea	1 (10)		
		Exfoliative dermatitis	1 (10)		
		Hair disorders (N=15)			
		Telogen effluvium	9 (60)		
		Alopecia areata	4 (26.7)		
		Androgenetic alopecia	2 (13.3)		
		Miscellaneous diseases (N=15)			

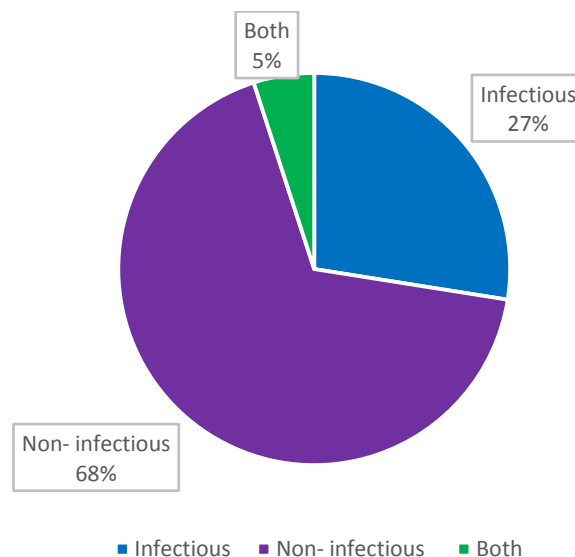


Figure-1: Distribution and pattern of skin diseases among the participants.

IV. Discussion

The purpose of this study was to evaluate the distribution of skin conditions among patients at a tertiary care hospital. Our study's female majority was consistent with that of studies by Grover et al., Kuruvilla et al., and Shahbaz et al. [9-11]. This is probably due to the reason that females are more conscious about their physical appearance than males and therefore tend to seek treatment more [12]. Our study, like several other studies, found that the 18–40 age range was the most frequently afflicted [9, 13, 14]. In our study, the majority of participants were from a middle class background, in contrast to prior studies where patients from the lower

socioeconomic class made up the majority [15]. The frequency of non-infectious dermatoses was higher than that of infectious dermatoses. In contrast, other research revealed a higher prevalence of infectious dermatoses [9, 10, 16]. Fungal infections were more common among the infectious dermatoses; these infections were primarily observed in adults, with tinea cruris constituting the biggest group. This aligned with multiple research investigations [17,18]. Infections with parasites were found to be substantially more common among individuals under the age of twelve and in lower socioeconomic groups [19]. In contrast, dermatophytoses were the most prevalent illness in this age group in the study conducted in Central Iran. The low prevalence of viral and bacterial illnesses in our study was likely caused by the limited sample size. Eczema was the most prevalent non-infectious condition, with contact dermatitis being the most common cause due to females' frequent use of household detergents. This was consistent with the Jain et al. study [20]. Nummular eczema, on the other hand, constituted the largest group in the Grover et al. study [9]. On the other hand, atopic eczema is the most prevalent type of eczema, according to studies by Maryam et al. and one conducted in the Hail region of Saudi Arabia [21, 22]. Melasma made up the majority of cases, with pigmentary diseases accounting for 15.1% of cases and being substantially more common in females aged 18 to 40. In contrast, the most common pigmentary condition observed in the Grover et al. investigation was vitiligo [9]. Telogen effluvium was the most common hair disorder among adult females. Hair disorders were prominent in this population. The 18–40 year age range was substantially linked to papulosquamous diseases and acne. In contrast to numerous other studies that found psoriasis to be the most common papulosquamous disorder, lichen planus was the most frequently observed papulosquamous disorder [23, 24].

Limitation of the study:

The study featured a single point of focus and minimal sample sizes. Therefore, it's possible that the study's findings don't accurately capture the overall situation.

V. Conclusion & Recommendation

Based on the results of our study, it is concluded that non-infectious skin illnesses are more common than infectious ones, with fungal infections and eczemas being the most common overall. Public knowledge about it and the necessity of receiving treatment is raised by this study. A few variations set this study apart from previous ones, but overall the pattern of skin illnesses was the same. To get a better understanding of the various variances in the pattern of skin diseases in Bangladesh, more research with a larger sample size and conducted in multiple centres would be necessary in the future.

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