



The Pattern of Skin Diseases in Patients Attending OPD of Dermatology and Venereology in a Tertiary Care Hospital in Bangladesh

Md. Abdus Sattar^{1*}, S.M. Sumsuzzoha², Shaila Zaman³, Arun Kumar Das⁴

¹Assistant Professor, Department of Skin & Venereology, Kushtia Medical College, Kushtia, Bangladesh.

Email: abdussattarneh@gmail.com,

Orcid ID: 0000-0002-0342-148X

²Assistant Professor, Department of Dermatology, Naogaon Medical College, Naogaon, Bangladesh.

Email: dr.zoha.sz@gmail.com,

Orcid ID: 0000-0002-9543-1107

³Consultant, Department of Skin & Venereology, Joypurhat District Hospital, Joypurhat, Bangladesh,

Email: shailazaman2641983@gmail.com,

Orcid ID: 0000-0003-4582-4372

⁴Junior Consultant, Department of Skin & Venereology, 250 Bedded General Hospital, Meherpur, Bangladesh,

Email: arundas.bd@gmail.com,

Orcid ID: 0000-0002-3726-1074

*Corresponding author

Received: 18 May 2022

Revised: 05 August 2022

Accepted: 14 August 2022

Published: 22 August 2022

Abstract

Background: In developing countries like Bangladesh, skin diseases are very much prevalent. On the other for the difference of climate and environment, the pattern of skin diseases differs from one country to another and even crosswise diverse parts within the same country. The prevalence of skin disease in the overall population varies from 11.16 % to 63 %. Moreover, this prevalence differs in different ages of the inhabitants of the same country. **Aim of the study:** The aim of this study was to assess the pattern of skin diseases in patients attending the OPD of Dermatology and Venereology in a tertiary care hospital in Bangladesh. **Methods:** This cross-sectional study was conducted in the outpatient department of Dermatology and Venereology in Kustia Medical College, Kustia, Bangladesh from January 2019 to December 2022. In total 400 skin diseases patients 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. A predesigned questionnaire was used in data collection. All data were collected, processed and analyzed by using MS Office and SPSS version 23.0 programs as per need. **Results:** 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. Among infective skin diseases group patients, the highest number of patients were with scabies which was found in 13.75% cases. Besides this, the frequencies of tinea infection, pyoderma, pityriasis versicolor, STD and herpes zoster were also noticeable. On the other hand, among non-infective skin diseases group patients, the highest number of patients were with eczema which was found in 15.25% patients. Besides this, the frequencies of 'miscellaneous & mixed' acne vulgaris, urticaria, psoriasis, nevoid disorder and alopecia were also noticeable. **Conclusion:** As per the findings of this current study we can conclude that, the prevalence of non-infective skin diseases is higher than that of infective skin diseases in Bangladesh. The frequencies of infective skin diseases like scabies, tinea infection, pyoderma, pityriasis versicolor, STD and herpes zoster as well as non-infective eczema, acne vulgaris, urticaria, psoriasis, nevoid disorder and alopecia claim more attention of physicians as well as health policy makers of Bangladesh.

Keywords:- Pattern, Skin Diseases, Dermatology, Venereology

INTRODUCTION

It is said that, because of current global warming, and frequent climate changes, day by day the frequency and occurrence of skin diseases is increasing worldwide. In this circumstance, researches to determine the pattern of skin diseases are now very important for proper health care planning and management. The pattern of usually differs in different countries and within various regions of a country depending on economic, social, racial and environmental factors. [1] In a study it was reported that, skin diseases can affect more than 60% of the general population. [2] Despite the high frequency of some skin diseases occurrences in developing countries, they have not been considered that as the significant health problem in their public health strategies. [3] Types of skin diseases are influenced by race, genetics, religion, nutrition, occupation and habits. [4] Some geographical factors like season and climate also contribute to the prevalence of some certain skin diseases in some particular areas. Bangladesh has a wide variation in climate, religion, socioeconomic conditions and customs in different parts of the country. [5] In developing countries, apart from hot and humid climatic conditions, poor access to water, inadequate hygiene, overcrowding, and high interpersonal contact also play significant etiological role in certain skin diseases like scabies, pyoderma, and fungal infection. [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] In developing countries, many patients do not have access to essential skin services, and even in developed countries about 15% of the patients use traditional home remedies before taking proper medical services. [8] In Bangladesh, among people, the epidemiology of this disease is poorly understood. [9] In the Indian subcontinent, infectious skin diseases are more common than non-infectious diseases, even than in Ghana. [10-12] On the other hand, dermatitis is more common in Egypt, Denmark and Singapore; and pre-malignant as well as malignant skin diseases are more common in the UK. [13,14] To reduce this disease burden awareness development regarding the etiology, pattern and prevention of skin diseases is very necessary. [15]

OBJECTIVE

General Objective

The key objective of the study was to analysis the pattern of skin diseases among Bangladeshi patients.

Specific Objective

- To assess the demographic status of skin diseases patients.
- To dig out the frequencies of infective skin diseases among total skin diseases patients.
- To dig out the frequencies of non-infective skin diseases among total skin diseases patients.



MATERIAL AND METHODS

This cross-sectional study was conducted in the outpatient department of Dermatology and Venereology in Kushtia Medical College, Kushtia, Bangladesh from January 2019 to December 2022. In total 400 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 18 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 23 *programs as per need.*

RESULTS

In this study, among total 400 participants, 48% were male whereas the rest 52% were female. So female participants were dominating in number. According to the age distribution of the participants the lowest frequency of occurring skin diseases was found in 13-18 years' age group participants which was 17%. In this study, the highest number of patients were student which was 40.5%. In analyzing the educational status of the participants, we observed that, about one third patients (32.7%) were SSC completed. In this current study 60% patients were from lower class families. Besides this, 26% were from middle and the rest 14% were from upper class families according to the socio-economic condition. In this study, among total 400 study people, 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. Among infective skin diseases group patients, the highest number of patients were with scabies which was found in 13.75% cases. Besides this, the frequencies of tinea infection (12.25%), pyoderma (4.75%), pityriasis versicolor (3.50%), STD (2.75%) and herpes zoster (2.25%) were also noticeable. On the other hand, among non-infective skin diseases group patients, the highest number of patients were with eczema which was found in 15.25% patients. Besides this, the frequencies of 'miscellaneous & mixed' acne vulgaris, urticaria, psoriasis, nevoid



disorder and alopecia were also noticeable which were found among 14.25%, 10.25%, 7.00%,

4.75%, another 4.25% and 3.00% patients respectively.

Table 1: Distribution of the patients according to year and sex (N=400).

Year	Male		Female	
	n	%	n	%
2019	98	46	47%	52
2020	101	49	49%	52
2021	100	48	48%	52
2022	101	49	49%	52
Total	400	192	48%	208

Table 2: Distribution of the patients according to age and sex (N=400)

Age groups (years)	Male		Female	
	n	%	n	%
<13 yrs.	86	22%	46	53%
13-18 yrs.	69	17%	27	39%
19-40 yrs.	77	19%	32	42%
41-60 yrs.	80	20%	42	52%
>60 yrs.	88	22%	45	51%
Total	400	100%	192	48%

Table 3: Distribution of patients according to type of infective disease (N=400)

Infective Diseases	Frequency (n)	Percentage (%)
Scabies	55	13.75%
Tinea infection	49	12.25%
Pyoderma	19	4.75%
Pityriasis versicolor	14	3.50%
STD	11	2.75%
Herpes zoster	9	2.25%
Warts	7	1.75%
Herpes simplex	5	1.25%
Candidiasis	4	1.00%
Chicken Pox	2	0.50%

Table 5: Distribution of the patients according to the type of non-infective disease (N=400)

Non-infective Disease	Frequency (n=185)	Percentage (46.3%)
Eczema	61	15.25%
Miscellaneous & mixed	57	14.25%
Acne vulgaris	41	10.25%
Urticaria	28	7.00%
Psoriasis	19	4.75%
Nevoid disorder	17	4.25%
Alopecia	12	3.00%
Melasma	9	2.25%
Ichthyosis	8	2.00%
Vitiligo	6	1.50%
Lichen Planus	6	1.50%
Drug eruptions	4	1.00%
Chronic bullous disease	3	0.75%
Connective tissue disease	2	0.50%
Photosensitivity	1	0.25%

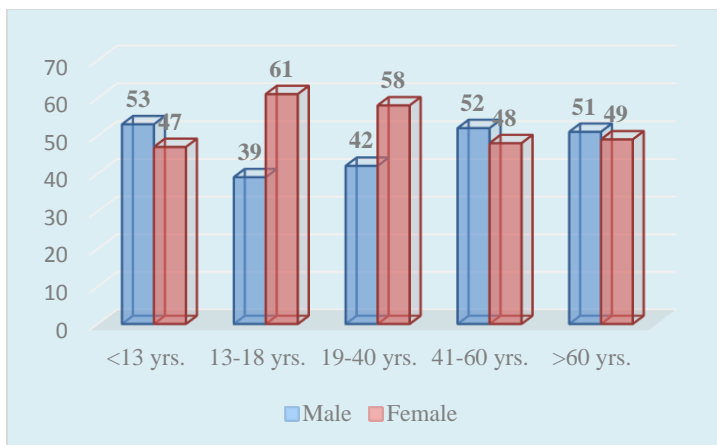


Figure 1: Bar diagram of the patients according to age (N=400).

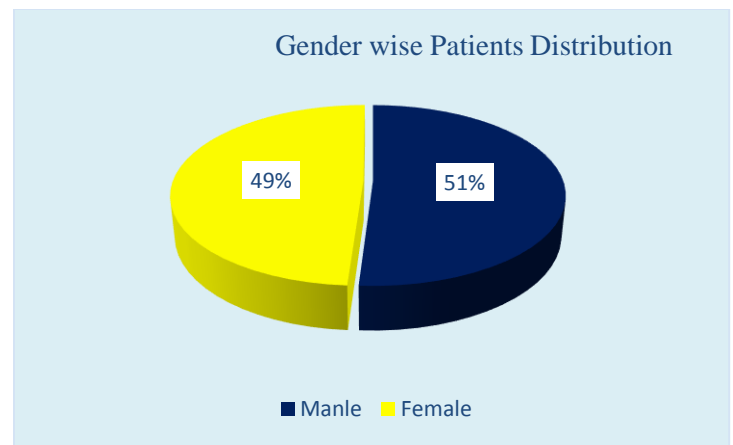


Figure 2: Pie Chart of the patients according to gender (N=400).

DISCUSSION

The aim of this study was to assess the pattern of skin diseases in patients attending the OPD of dermatology and venereology in a tertiary care hospital in Bangladesh. In this study, among total 400 participants, 48% were male whereas the rest 52% were female. So female participants were dominating in number. According to the age distribution of the participants the lowest frequency of occurring skin diseases was found in 13-18 years' age group participants which was 17%. 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 13.75% 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.

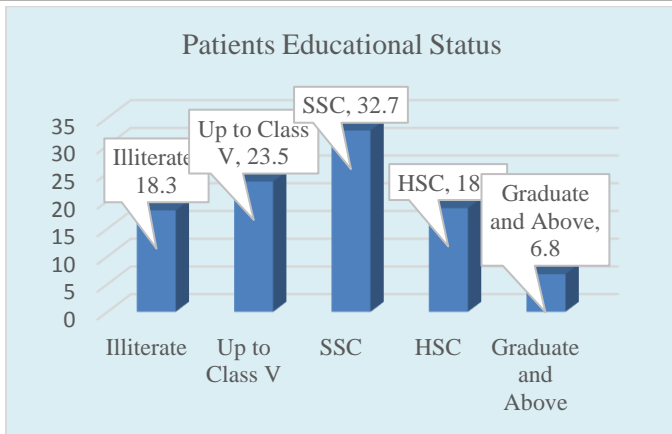


Figure 3: Bar diagram of the patients according to education (N=400).

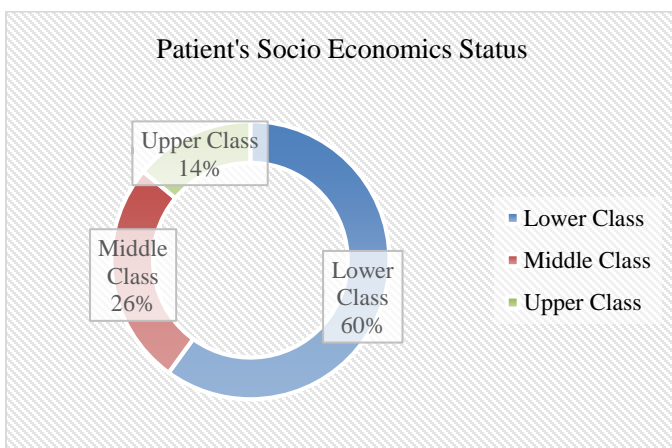


Figure 4: Pie Chart of the patients according to socio-economic classification (N=400).

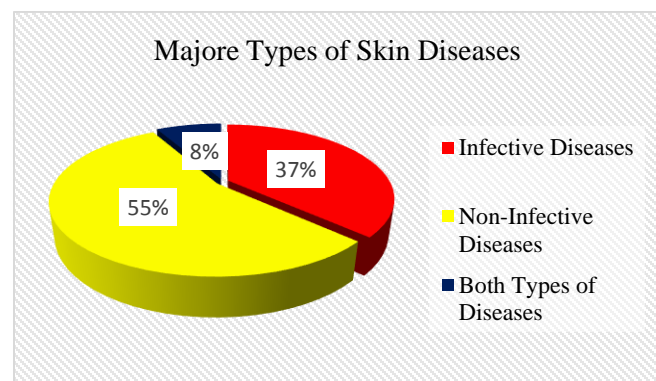


Figure 5: Pie Chart of the patients according to major types skin diseases (N=400).

[21] In this study, among non-infective skin diseases group patients, the highest number of patients were with eczema which was found in 15.25% patients. Besides this, the frequencies of 'miscellaneous & mixed' acne vulgaris, urticaria, psoriasis, nevoid disorder and alopecia were also noticeable. Regarding allergic skin disorders, eczema and photodermatitis in our study are very similar to many other studies but significantly dissimilar to some other studies. [11, 16, 17, 22]

CONCLUSIONS & RECOMMENDATION

According to the findings of this current study we can conclude that, the prevalence of non-infective skin diseases is higher than that of infective skin diseases in Bangladesh. The frequencies of infective skin diseases like scabies, tinea infection, pyoderma, pityriasis versicolor, STD and herpes zoster as well as

REFERENCES

1. Sarkar, S., Islam, A., Sen, K., & Ahmed, A. (1). Pattern Of Skin Diseases In Patients Attending OPD Of Dermatology Department At Faridpur Medical College Hospital, Bangladesh. Faridpur Medical College Journal, 5(1), 14-16. <https://doi.org/10.3329/fmcj.v5i1.6807>.
2. Kocinaj A, Kocinaj D, Berisha M; Skin disease among preschool children. J. Bacteriol. Res. 2009; 1(2): 25-29.
3. Schofield OM, Hunter JA. Diseases of the skin in Davidson's Principles & Practice of Medicine.
4. Zamanian A, Mahjub H. Prevalence of skin diseases in Hamedan, Iran in 2002. Indian Journal of Dermatology. 2005 Oct 150(4):208.
5. Atraiide DD, Akpa MR, George IO. The pattern of skin disorders in a Nigerian tertiary hospital. J Public Health Epidemiol. 2011 Apr 3(4):177-81.
6. Devi TB, Zamzachin G. Pattern of skin diseases in Imphal. Indian Journal of Dermatology. 2006 Apr 151(2):149.
7. Symvoulakis EK, Krasagakis K, Komninos ID, Kastrinakis I, Lyronis I, Philalithis A, Tosca AD. Primary care and pattern of skin diseases in a Mediterranean island. BMC Family Practice. 2006 Dec 7(1):1-6.
8. Grover S, Ranyal RK, Bedi MK. A cross-section of skin diseases in rural Allahabad. Indian journal of dermatology. 200853(4):179.
9. Jain S, Barambhe MS, Jain J, Jajoo UN, Pandey N. Prevalence of skin diseases in rural Central India: A community-based, cross-sectional, observational study. Journal of Mahatma Gandhi Institute of Medical Sciences. 2016 Jul 121(2):111.

Limitations of the Study

The study was conducted in a single hospital with small sample size. So, the results may not represent the whole community.

Funding: No funding sources.

Ethical approval: The study was approved by the Institutional Ethics Committee.



10. 10Kar C, Das S, Roy AK. The pattern of skin diseases in a tertiary institution in Kolkata. *Indian journal of dermatology*. 2014 Mar 59(2):209.
11. Das S, Chatterjee T. Pattern of skin diseases in a peripheral hospital's skin OPD: A study of 2550 patients. *Indian Journal of Dermatology*. 2007 Apr 152(2):93.
12. Doe PT, Asiedu A, Acheampong JW, Rowland Payne CM. Skin diseases in Ghana and the UK. *International journal of dermatology*. 2001 May 40(5):323-6.
13. Chua-Ty G, Goh CL, Koh SL. The pattern of skin diseases at the National Skin Centre (Singapore) from 1989–1990. *International journal of dermatology*. 1992 Aug 31(8):555-9.
14. El-Khateeb EA, Imam AA, Sallam MA. The pattern of skin diseases in Cairo, Egypt. *International journal of dermatology*. 2011 Jul 50(7):844-53.
15. Onayemi O, Isezuo SA, Njoku CH. Prevalence of different skin conditions in an outpatients' setting in north-western Nigeria. *International journal of dermatology*. 2005 Jan 44(1):7-11.
16. Agarwal S, Sharma P, Gupta S, Ojha A. Pattern of skin diseases in Kumaun region of Uttarakhand. *Indian Journal of Dermatology, Venereology and Leprology*. 2011 Sep 177(5):603.
17. Nnoruka EN. Skin diseases in south-east Nigeria: a current perspective. *International journal of dermatology*. 2005 Jan 44(1):29-33.
18. Baghestani S, Zare S, Mahboobi AA. Skin disease patterns in Hormozgan, Iran. *International journal of dermatology*. 2005 Aug 44(8):641-5.
19. Das KK. The pattern of dermatological diseases in Gauhati Medical College and Hospital Guwahati. *Indian journal of dermatology, venereology and leprology*. 2003 Jan 69(1):16-8.
20. Kuruvilla M, Sridhar KS, Kumar P, Rao GS. The pattern of skin diseases in Bantwal Taluq, Dakshina Kannada. *Indian Journal of Dermatology, Venereology and Leprology*. 2000 Sep 166(5):247-8.
21. Das A, Haldar S, Das J, Mazumdar G, Biswas S, Sarkar J. Dermatological disease pattern in an Urban Institution of Kolkata. *Indian Journal of Dermatology*. 2005 Jan 50(1):22.
22. Asokan, N., Prathap, P., Ajithkumar, K., Ambooken, B., Binesh, V.G. and George, S., 2009. Pattern of skin diseases among patients attending a tertiary care teaching hospital in Kerala.

Source of Support: Nil, Conflict of Interest: None declared