

Pattern of pediatric skin diseases in patients attending OPD of Dermatology and Venereology at Sher-e-Bangla Medical College Hospital, Barishal, Bangladesh.

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ABSTRACT: Background: Pediatric dermatoses account for a higher proportion of outpatient department. Pediatric dermatoses are the common health problems seen in the developing countries. **Objective:** The purpose of present study was to find out the pattern of skin diseases among Pediatric Patient attending in OPD of Dermatology and Venereology, Sher-E-Bangla Medical College Hospital, Barishal, Bangladesh. **Methods and Materials:** This cross-sectional study was conducted in the outpatient department of Dermatology and Venereology, Sher-E-Bangla Medical College Hospital, Barishal, Bangladesh, during the period of 1st January 2017 to 31 December 2017. During study period total 29985 new patients visited skin VD OPD, for skin diseases. Among them 5998 patient Aged 1 day to 12 years were included in this study. All new diagnosed cases Aged 1 day to 12 years of both sex selected as study population. Diagnosis was done on clinical grounds and laboratory investigations were done whenever required. **Observation:** The Pattern of Pediatric Skin Diseases was higher in male 3129 (52.15%), than in female 2869 (47.85%). The most common dermatoses seen is Parasitic infection (31.08%), mostly scabies followed by bacterial infection (21.11%), fungal infection (18.18%), eczema (13.1%), viral infection (4.11%), urticaria (6.81%), vitiligo (.95%), psoriasis (.7%), drug reaction (.55%), acne (.45%), genodermatoses (.4%), neoplastic skin disorder (.3%) and others (2.23%). **Conclusion:** This study we found that common skin diseases of pediatric patient were Infective skin diseases mostly parasitic, bacterial and fungal are predominant in Bangladesh, though it is less frequent in developed countries.

Keywords: Infective dermatosis, Psoriasis, Scabies, Fungal diseases, Allergic dermatosis, Acne.

(The Planet 2018; 2(2):18-26)

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INTRODUCTION:

Pediatric skin problems are one of the most common health problems seen in the developing countries. The incidence being 9-37% all over the world with almost 20% in Bangladesh.

Dealing a child with skin disorders require special skills as they differ in clinical presentation, treatment and prognosis when compared with adult dermatosis. Studies of Pediatric population suffering from skin disease can play an important role in public health and policy making. Many factors, like geographic area, climate, seasonal variation and socio-economic status influence the pattern of skin diseases in children. Various studies conducted in different parts of country and different countries of the world shows different pattern of skin diseases in children.

The aim of this study was to find out the incidence rate of pediatric skin diseases in south east region of Bangladesh that can subsequently serve as baseline reference material for future comparative studies.

MATERIALS AND METHODS:

This was a cross sectional study conducted in the out Patient department of Dermatology and Venereology in Sher-E-Bangla Medical College Hospital, Barishal,

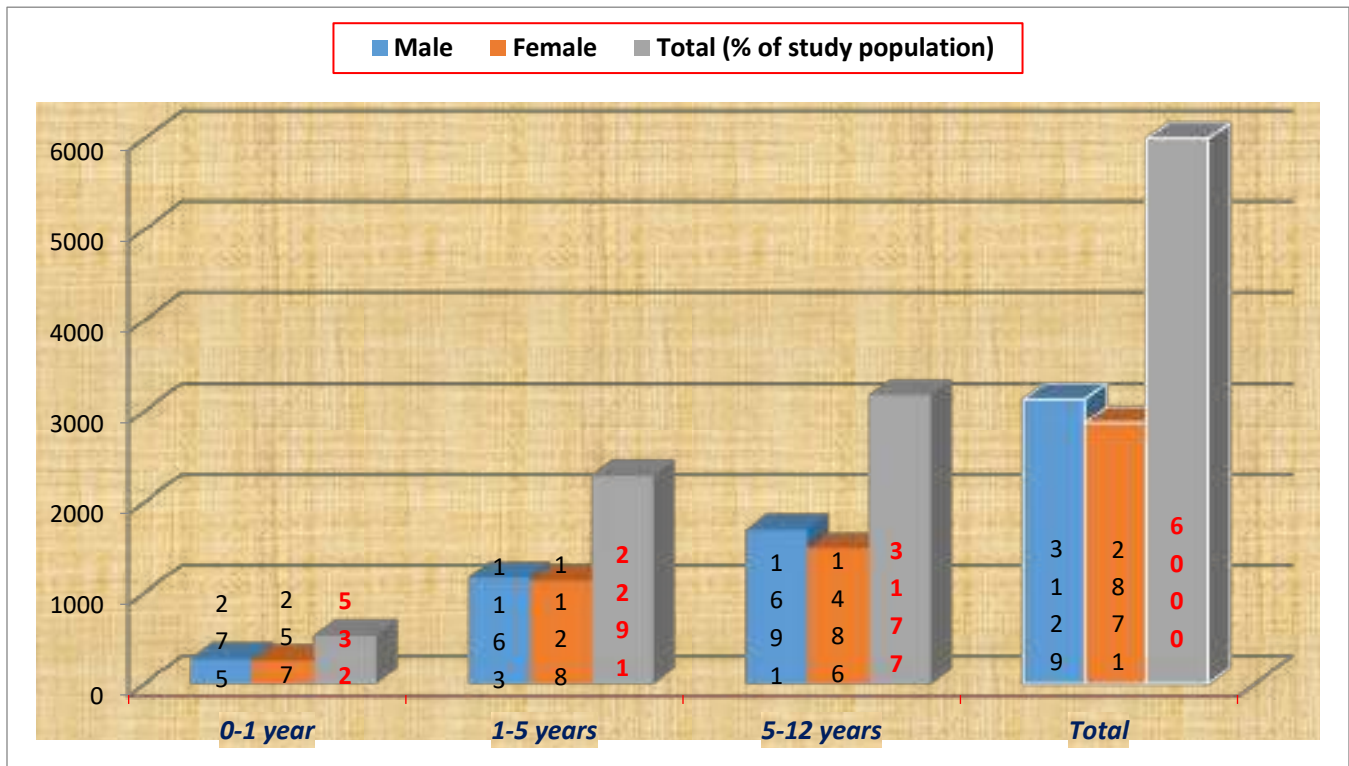
Bangladesh, during the Period of 1st January, 2017 to 31st December, 2017. The Patient of 1 day to 12 years age of both sexes who were attended in the OPD of Dermatology and Venereology of this hospital were selected as study population. All new cases were included in this study. A total of 29985 new diagnosed case were visited in OPD for dermatological problems. Among them 5998 (20.01%) patients were aged 1 day to 12 years, in which male children were 3129 (52.15%) and female children were 2869 (47.85%) of study Population. Diagnosis was made by proper history, clinical examination and laboratory investigations were done where required. Conformed consent was taken from patient.

RESULT:

A total number of 29985 patients were visiting the dermatology outpatient department (OPD) of Sher-E-Bangla Medical College Hospital, Barishal. Out of them 5998 pt. (20.01%) were 01 day to 12 years of age, in which male child is 3129 (52.15%) and female child is 2869 (47.85%). Male and female ratio is 1.08 : 1.

Distribution of the patient according to age and sex is given below (table-1):

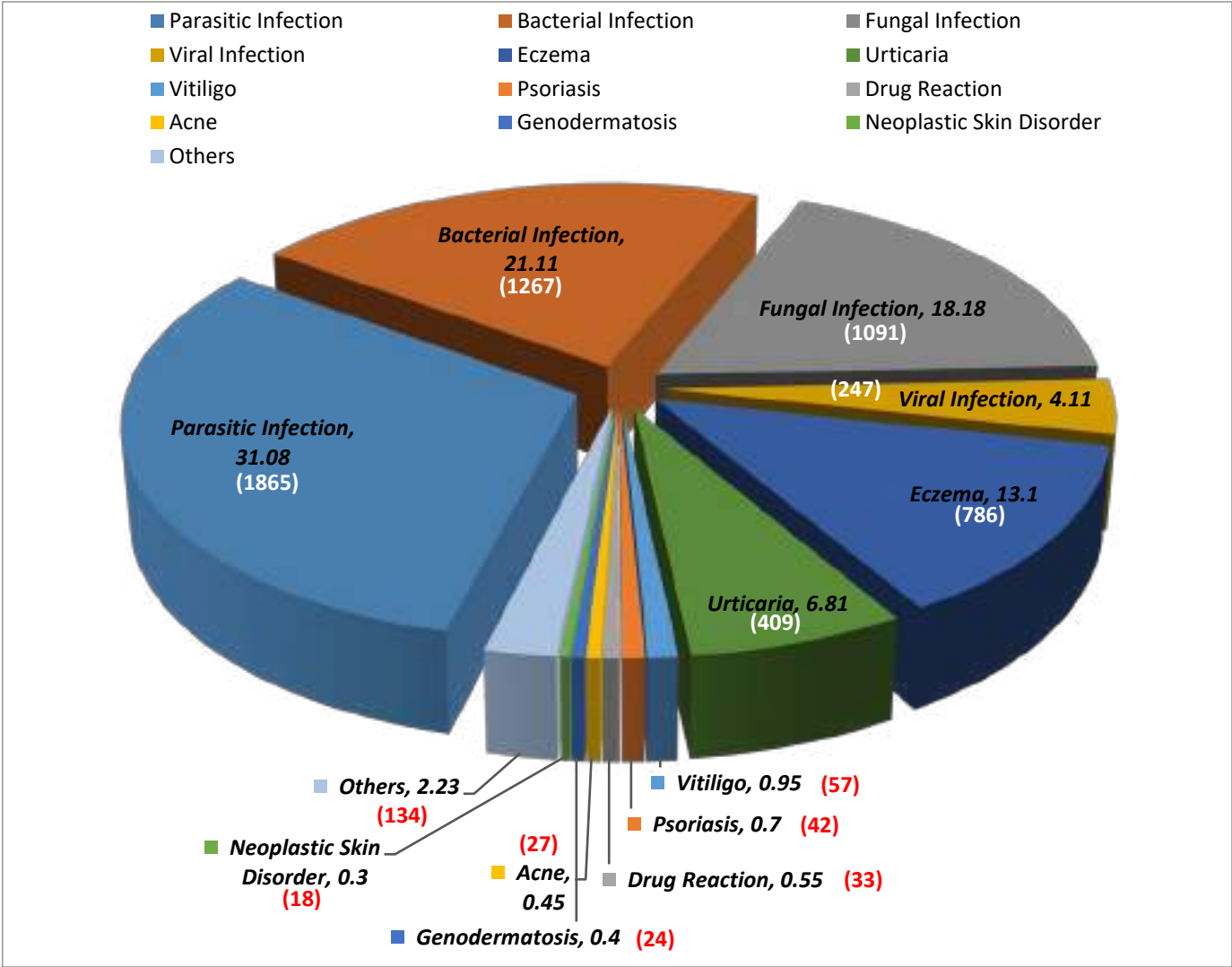
Table-1: Distribution of Patient according to Age and Sex (n 5998)



| Age Group | Male | Female | Total (% of study population) |
|-------------------|---------------|---------------|-------------------------------|
| 0-1 year | 275 (51.69%) | 257 (48.30%) | 532 (8.85%) |
| 1-5 years | 1163 (50.76%) | 1128 (49.23%) | 2291 (38.18%) |
| 5-12 years | 1691 (53.22%) | 1484 (46.77%) | 3175 (52.9%) |
| Total | 3129 (52.15%) | 2869 (47.85%) | 5998 (100%) |

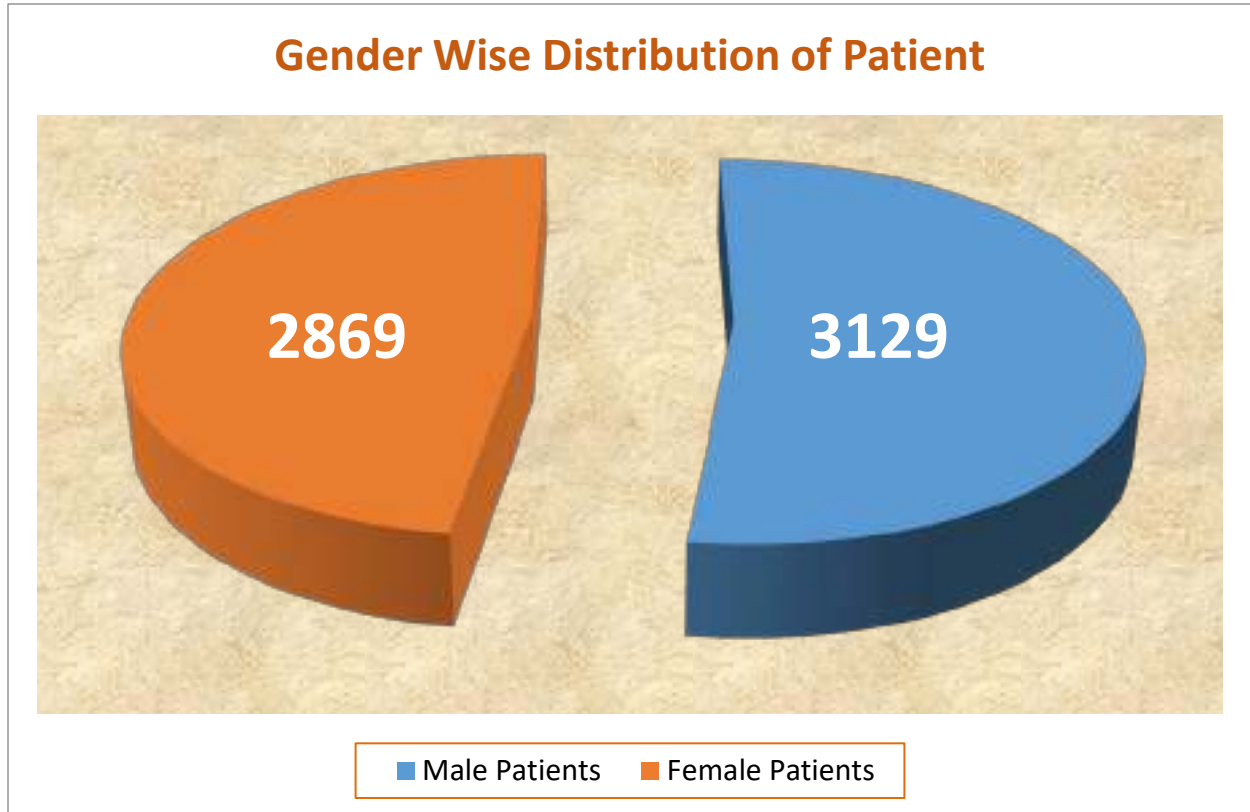
Table-2: Distribution of Pattern of skin disease

| Skin diseases | | Frequency N (5998) | Percent (%) | | |
|--------------------------|------------------------|--------------------|-------------|-------|-------|
| Parasitic Infection | Scabies | 1808 | 1865 | 96.94 | 31.08 |
| | Pediculosis | 57 | | 3.05 | |
| Bacterial Infection | Impetigo | 511 | 1267 | 40.33 | 21.11 |
| | Pyoderma | 437 | | 34.49 | |
| | Folliculitis | 319 | | 25.17 | |
| Fungal Infection | Tinea corporis | 327 | 1091 | 29.97 | 18.18 |
| | Tinea cruris | 216 | | 19.79 | |
| | Tinea capitis | 197 | | 18.05 | |
| | Candidiasis | 159 | | 14.57 | |
| | Pityriasis versicolor | 116 | | 10.63 | |
| | Onychomycosis | 67 | | 6.14 | |
| Viral Infection | Verruca | 107 | 247 | 43.31 | 4.11 |
| | Molluscum contagiosum | 88 | | 35.62 | |
| | Varicella | 27 | | 10.93 | |
| | Herpes simplex | 19 | | 7.69 | |
| | Herpes zoster | 6 | | 2.42 | |
| Eczema | Atopic Dermatitis | 509 | 786 | 64.75 | 13.1 |
| | Contact Dermatitis | 142 | | 18.48 | |
| | Seborrhoeic Dermatitis | 135 | | 17.17 | |
| Urticaria | | 409 | | 6.81 | |
| Vitiligo | | 57 | | .95 | |
| Psoriasis | | 42 | | .7 | |
| Drug Reaction | | 33 | | .55 | |
| Acne | | 27 | | .45 | |
| Genodermatosis | | 24 | | .4 | |
| Neoplastic Skin Disorder | | 18 | | .3 | |
| Others | | 132 | | 2.23 | |



Frequency N-5998 (%)

Table-3: Gender wise distribution of Patient



| Male Patients | Female Patients |
|---------------|-----------------|
| 3129 (52.15%) | 2869 (47.85%) |

The most common type of dermatosis found in our study was Parasitic disease. Out of 5998 pediatric patients, a total number of 1865 cases were parasitic diseases, of which 1808 (96.94%) cases were scabies and 57 (3.05%) cases were pediculosis. Bacterial infection was present in 1267 (21.11%) cases, among them Impetigo was found in 511 (40.33%) cases, pyoderma in 437 (34.49%) cases, folliculitis in 319 (25.17%) cases, Fungal infection was present in 1091

patients and it is 18.18% of study population; among them tinea corporis, Tinea cruris, Tinea capitis, Candidiasis, Pityriasis versicolor, Onychomycosis were found in 327 (29.97%), 216 (19.79%), 197 (18.05%), 159 (14.57%), 116 (10.63%), 67 (6.14%) respectively.

Viral diseases were found within 247 patients and it is 4.11% of the study population. Among them Verruca (wart)

was found in 107 (43.31%) cases, Molluscum contagiosum was in 88 (35.62%) cases, Varicella was in 27 (10.93%) cases, Herpes simplex was in 19 (7.69%) cases, Herpes zoster was in 6 (2.42%) cases. Among 786 eczema cases which is 13.1% of study population, Atopic dermatitis was found in 509 (64.75%), Contact dermatitis was in 142 (18.48%), Seborrhoeic Dermatitis was in 135 (17.17%) cases. Urticaria was found in 409 (6.81%) cases, Vitiligo was found in 57 (.95%) cases, Psoriasis was found in 42 (.7%) cases, Drug reaction was found in 33 (.55%) cases, Acne was found in 27 (.45%) cases, Genodermatosis was found in 24 (.4%) cases, Neoplastic skin disorder was found in 18 (.3%) cases, others were in 132 (2.23%) cases.

DISCUSSION:

The Present study describes the pattern of Pediatric skin disease in Sher-e-Bangla Medical College Hospital, Barishal, Bangladesh. Pediatric skin diseases were higher in male child (52.15%) than in female (47.85%).

It has been noticed that Pediatric dermatoses vary from one country to another country, one city to another city and even one society to another society. Prevalence of Pediatric dermatosis in our study was more than the previous study conducted in our country.

Another study done in the North Bengal shows prevalence of Pediatric dermatosis is lower than our study. This variation may be due to different environmental, cultural and socio-economic status.

There was variation in prevalence of dermatosis among the age groups in our study. Parasitic infection mostly scabies was the most common dermatosis in our study. It was found, overall, in all pediatric age group. Later pediatric age group is little more than infant. Bacterial infection was the second most common disease found in Pediatric patient and it was more common in later pediatric age group. Molluscum contagiosum is more prevalent in early age group whereas wart is in the later age group of Pediatric Patient.

Eczema was common in the early age group. Fungal infection is more common in later age group of Pediatric Patient in our study.

In the present study, we found that scabies was the commonest skin disorder and was 30.13% of study population. This may be due to over-crowding, poor socio-economic status and poor personal hygiene. Bacterial infection was the second largest group seen in 22.11% of patients. This is also due to poor personal hygienic condition. A large portion are suffering from fungal infection which is 18.18%. High humid climate of the country contributed the higher proportion of fungal infection.

The seasonal occurrence of different dermatoses were not much different except in case of scabies, where the number of cases were more in winter as compared to summer.

Poor hygiene in winter along with poor sanitation may be the cause of increased prevalence of scabies in developing countries.

A study from Turkey and another study from Northern Greece, showed eczema as a commonest skin disorder in early age groups whereas infection and infestations are common in our country and in tropic region of many Asian countries. This suggests that hot and humid climate of a developing nation is more prone to infectious dermatosis. Poor sanitation and low socio-economic condition can also be an important factor for increased prevalence of Pediatric dermatoses.

In the present study we found that scabies, bacterial infection, fungal infection were the most common Pediatric skin disorders while the prevalence of Eczema, Urticaria, Viral infection, Psoriasis, Vitiligo, Neoplastic disorder, Genodermatoses were comparatively less.

CONCLUSION:

This study gives a picture of pattern of common skin diseases in south east part of Bangladesh. Overall scabies, bacterial infection, fungal infection were the three major Pediatric dermatoses occurring most commonly in Pediatric age group. From this study it can be concluded that better health education, maintaining personal hygiene, improvement in the standard of living. Proper case diagnosis and proper treatment may remain of importance in managing common skin diseases of Pediatric patients.

REFERENCES:

1. Rao GS, Kumar SS. Pattern of skin diseases in an Indian village. *Indian Journal of Medical Sciences*. 2003;57(3):108-10
2. Hay R, Sandra E, Chen BS. Skin diseases in disease control priorities in developing countries. [accessed online www.ncbi.nlm.nih.gov/books/NBK11733; 24th. November 2011]. p.708
3. Schofield OMV, Hunter JAA. Diseases of the skin in Davidson's Principles & Practice of Medicine, 21st. Edition, Edinburg, UK Publisher Elsevier. 2011:1376
4. Zamanian A, Mahjub H. Prevalence of skin diseases in Hamedan, Iran in 2002. *Indian Journal of Dermatology* 2005;50(4):208-11
5. Atraide DD, Akpa MR, George IO. The pattern of skin disorders in a Nigerian tertiary hospital. *Journal of Public health and epidemiology*. 2011;3(4):177-81
6. Devi TB, Zamzachin G. Pattern of skin diseases in Imphal. *Indian journal of Dermatology*. 2006;51(2):149-50
7. Symvoulakis EK, Krasagakakis K, Komminos ID, Kastrinakis I, Lyronis I, Philalithis A, et al. Primary care and pattern of skin diseases in a Mediterranean island. *BMC Family Practice*. 2006;7(1):6:201-10
8. Grover S, Ranyal RK, Bedi MK. A cross section of skin diseases in rural Allahabad. *Indian J Dermatol* 2008;53:179-81
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;21(2):111-15
10. Kar C, Das S, Roy AK. Pattern of skin diseases in a tertiary institution in

- Kolkata. Indian Journal of Dermatology.2014;59(2):209-15
11. Das S, Chatterjee T. Pattern of skin diseases in a peripheral hospital's skin OPD: A study of 2550 patients. Indian J Dermatol 2007;52:93-5
 12. Yasmeen N, Khan MR. Spectrum of common childhood skin diseases: a single centre experience. JPMA. The Journal of the Pakistan Medical Association 2005;55(2):60-3
 13. Asokan N, Prathap P, Ajithkumar K, Ambooken B, Binesh VG, George S. Pattern of skin diseases among patients attending a tertiary care teaching hospital in Kerala. Indian Journal of Dermatology, Venereology Leprology 2009;75(5):517
 14. Sardana K, Mahajan S, Sarkar R, Mendiratta V, Bhushan P, Koranne RV, et al. The spectrum of skin disease among Indian children. Pediatric Dermatology 2009;26(1):6-13
 15. Fung WK, Lo KK. Prevalence of skin disease among school children and adolescents in a Student Health Service Center in Hong Kong. Pediatric Dermatology 2000;17(6):440-6
 16. Chua-Ty G, Goh CL, Koh SL. Pattern of skin diseases at the National Skin Centre (Singapore) from 1989-1990. International Journal of Dermatology. 1992;31(8):555-9
 17. Kiellberg-Larsen H, Sand C. Referral pattern of skin diseases in an acute outpatient dermatological clinic in Copenhagen. Acta dermato-venereologica. 2005;85(6): 509-511
 18. Doe PT, Asiedu A, Acheampong JW, Rowland Payne CM. Skin diseases in Ghana and the UK. International Journal of Dermatology. 2001;40(5):323-6
 19. El-Khateeb EA, Imam AA, Sallam MA. Pattern of skin diseases in Cairo, Egypt. International Journal of Dermatology. 2011;50(7):844-53
 20. Onayemi O, Isezuo SA, Njoku CH. Prevalence of different skin conditions in an outpatients' setting in north-western Nigeria. International Journal of Dermatology 2005;44(1):7-11