



## **Evaluation of the Skin Infections and Conditions among Students of Gomal Medical College Pakistan**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Authors SP, YMA, TA and FA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors ED, AA, ARS and SSASR managed the analyses of the study. Authors SHA, AA, MAS and AAM managed the literature searches. All authors read and approved the final manuscript.*

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## ABSTRACT

**Objective:** The objective of the current study is to determine the pattern of dermatological disorders and to find out their connection with different socioeconomically factors among students of the Medical College.

**Methodology:** The Cross sectional observational study was carried out for the period of three months .The research instrument used was the well developed questionnaire.

**Results:** The questionnaire was administered among total 350 students and the most participant age group was the > 22 and that was about 47.4% of the total sample size the more skin complication seen was the acne that was about 59.7%, in addition to this dandruff contributed very heavily to the hair complexities which makes about 35.7% of the sample.

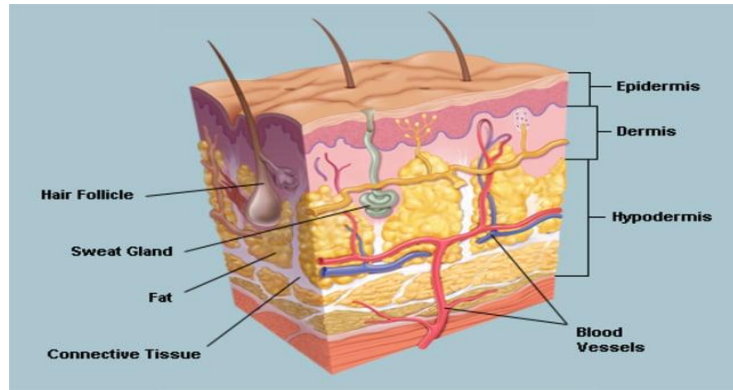
**Conclusion:** Skin infections especially the cosmetic are very common among the Medical students.

*Keywords: Skin infections; acne; medical students; Pattern.*

## 1. INTRODUCTION

Skin is considered as longest organ of the body that approximately measures about 20 square feet. The major function of this organ is to defend the body from micro organisms and the factors that are responsible for the regulation of temperature, sensation, of cool and hot. Skin infections are one of the hot health problem which is really cause of the concern and it lays major adverse effect to the large population of not only in Pakistan but in the world as well [1-2]. American Academy of the dermatology association reveals that near about 84.5 million American suffer from the skin issues and it will not be wrong to say that one in three Americans were seen with the dermatologist and they consult with other physicians too to look after their skin triggered other complications too [3-4]. The studies showed that the USA health care system incur the 75 billion USD annually to counter with the dermatological issues of the populations which includes preventive measures and prescription and non prescription costs .Skin infections pose serious threats to the population of kingdom of Saudi Arabia as well and the skin infection which was commonly observed in the Saudi Arabia population was the eczema especially in the eastern province of the Saudi Arabia in addition to this various other skin issues like acnes rashes [5-7], Herpes were found .Skin disease is not only affecting the patients physically but in addition to that the patient has to incur very heavy amount of psychological burden and in some cases the psychological effect is more profound than the Physical health conditions. Skin conditions become worse among the adults as they are very much fond of attractive face and beauty [8]. Different factors elaborate the frequency and mode of transmission of skin ailment among the

adults that includes Gender, personal hygiene, diet consumption and skin care. In some cases of skin diseases are considered as induced from personal conflicts or emotional attachment [9,10]. Skin allergic department is frequently divided into numerous infectious and prevalence of transmission [11,12]. Study proposes that number of the dermatological infections pertain to fewer than ten categories Such type of research studies are very fruitful to develop the research based and preventive health programs for benefit of the society [13-14]. Their proper management counseling is very vital at early stages having educational awareness of the students to prevent the disfiguring complications and psychological series on the issue in later stage of the complications .In the world most of the studies based on the skin disease reveals that only the few people suffering from the sin disease look very careful in management of their disease the reason is being low mortality ration comparatively to the numerous ailment .This approach resulted in international health policy makers and local health professionals to set skin morbidities a low priority [15]. Another issues which pose the major problem is that the Public health interventions in subsiding the prevalence, morbidity and mortality of skin disease may be underestimated, Hence there is dire need of such studies with respect to the skin morbidities in many countries but especially in the developing countries [16-17]. With this same reason the current study was made to find out the patterns and complexity of dermatological infections and to demonstrate their relationship to dissimilar socio-demographic factors among the medical student of Gomal Medical College in Dera Ismail Khan KPK Pakistan. Below in the chart is given the graphical representation of the skin tissues and layers.



**Fig. 1. Anatomy of the Skin**

**2. RESEARCH METHODOLOGY**

The observational cross sectional research was conducted at Gomal Medical College Dera Ismail Khan KPK Pakistan for the period of three months from February 6 to 6th may 2021 after the ethical Approval was sought from the Institutional Research committee prior to conduct the research study. The sample was collected using the random sample technique and the total sample size was the 350 and the sample size was determined using the confidence level of 95% with 15% degree of the precision of the expected portion and an estimated min prevalence of 40% .The students of the 2nd , 4th , 8<sup>th</sup> and 10<sup>th</sup> semester were chosen with the random sample technique and the reason to pick the students from these semesters were to have the balanced representation of the students .The participants were told all the pros and cons of the study before initiating the research .and the verbal consent of all the students were sought. The well developed pretested self administered questionnaire was administered among the students to collect the Data. The face validity of the questionnaire was made with seeking the expertise of the dermatology I expert .The questionnaire was subjected to the pilot trial of the 20 students before conducting the study in full swing .The authenticity of the questionnaire was determined by the help of Cronhbachs' Alpha the value of that was 0.82 showed good internal consistency .The questionnaire carried different questions few mentioned below the presence of the any skin morbidities , the frequency of the face wash in a day , usage of the facial cleansing products , frequency of the head and body wash in a week , frequency of the usage of the hair shampoo in a week , frequency

of the usage of the sunscreen lotions ,The trends of sharing the linen and clothes with the mates and different other questions like life style habits based on the amount of water consumed in a day frequency of taking oily and fast food , fruits and vegetables in a week. The collected data were done using the SPSS 23.00.

**3. RESULTS**

Table 1 shows the socio-demographic information of the participants.

**Table 1. Socio-demographic variables of the sample**

Age in years	Number	Percentage
18-20years	97	27.7%
21-22years	87	24.8%
>22years	166	47.4%
<b>Gender</b>		
Male	207	59.1%
Female	143	40.8%

Table 2. Shows the correlation of the hair morbidities and the skin morbidities most commonly frequent Hair morbidity was the dandruff about 35.71%and in the skin it was acne 59.7%.

In Table 3. it was determined that the students who took good care of their skin were less affected with the acne and if got affected the duration of acne was less so it was seen that out of total sample size 350 the affected with acne was 59.7% and the remaining exercised excellent care .The Papule type of acne had less duration because 25.35% affected the good skin care contrary to this the pustule was having

duration more because the effected exercised poor skin care.

**Table 2. Hair and Skin diseases among students with gender**

Hair diseases	Number	Percentage
Hair Loss	45	12.8%
Split ends	67	19.1%
Dandruff	125	35.7%%
De-pigmentation	113	32.2%
<b>Skin Diseases</b>		
Acne	209	59.7%
Sun tan	141	40.28%

**Table 3. Relationship between skin care with type and duration of Acne**

Type of Acne	Number (%)	Duration (Years)	P value
White head/ Black head	67(32.05)	< 1	0.03
Papule	53(25.35)	>1	
Pastule	89(42.5)	<1	

#### 4. DISCUSSION

Since it is the matter of fact that the skin complications are not only the infections of the under developing or developing countries but parallel to them the developed countries also face this major health complication. It can be said that every one among five face this health complication. [1-2] this leads to the situation that forms a major worldwide burden of skin disease .The topic of economical burden of the skin disease is very profound and it has added to this comprehensive visibility of skin infections which has resulted in the deteriorated quality of life which cause the social handicap and deprivation. In few parts of the globe it was analyzed that the mortality rate and disability -adjusted life years caused by skin complications were at par to the certain communicable and non-communicable disease. [3-4] In regression graph the dermatological infections and the rheumatism was strongly linked with sense of depression than the asthma , Sugar and cardiac angina .Keeping in view their major affect on the particular one , the family, the social life of patients and their heavy economical burden, the public health significance of such infections is underappreciated .Current research also depicted the numerous types of the skin

morbidities which are more frequent in among medical students .It was reported that the younger adults face more social issues due to skin infections than the old ones[5] .The proper management and the better treatment of the skin infections will not only reduce the economical burden of the skin problems but at the same time it will also enhance the quality of life of the patients suffering from the skin disease [6].In the current research the most common skin problem was seen the Acne and it was about 59.7%.The major contributing factors for the acne are the sweating and hot weather this is very inline with the hot and humid weather .[7]

#### 5. CONCLUSION

From the current study it can be concluded that various morbidities are very common among medical students, especially cosmetic problems lay acne, hair loss, and skin tan, serious types of acnes were more frequent.

#### 6. LIMITATIONS

The current study may not be generalized to the other population groups in owing to the dissimilar variables linked with separate skin complexities. It may not show the burden of the skin complications in youth adults like a population based research. Also as such morbidities were self reported there may be a probability of recall bias .In the current research the quality of the skin care was determined by the frequency of activities like face wash, bodily wash or using the hair tonics or shampoos and this can be one of the limiting factor in assessing the genuine quality of skin care.

#### CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

#### ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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