

## Pattern of Skin Disease among University Students in Marrakesh

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### Abstract

### Original Research Article

Skin diseases are a common problem among young adults. They can result in serious emotional and psychological disorders. This study was conducted to assess the frequency of dermatologic diseases among Moroccan university students living on the public university campus. 460 individuals were included accounting for 14, 8% of the university campus students. The mean age was 21 years old. 44% were males and 56% females. All dermatological diseases were recorded. The inflammatory dermatoses were the most prevalent (38%) with predominance of acne (17%), followed by contact eczema (9%), psoriasis (7%), urticaria (4%) and rosacea (2%). Infectious dermatoses were found in 32% of cases, with epidermomycosis on top of the list (16%), then scabies (10%) and genital infections in 6% of cases. Hair pathology was reported in 25% of students, mostly represented by hair loss and dandruff. No case of malignant disease has been reported. The average development time was 11 months, in 70% of cases after settling in the university campus. A low socio-economic level was noted in 68% of the students. 80 % of cases affirmed that the dermatologic disorder negatively impacted their quality of life. Our results highlight the high morbidity of skin diseases in this population, thus more researches should be carried out in this specific community in order to improve their conditions and reduce the burden of dermatologic disorders.

**Keywords:** University campus, students, pattern, dermatological diseases, acne.

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## INTRODUCTION

Dermatologic disorders affect a large number of people and are associated with a heavy burden of disease worldwide as they can threaten patient's well-being, mental health, ability to function, and social participation [1, 2]. Skin diseases are more common among young adult's particularly cosmetic problems [3]. In addition, they are known to be common in places where society lives in a crowded area such as dormitories [4]. Unfortunately, there is a lack of data about skin diseases among university students living on campus.

Our work aimed to assess the pattern of dermatologic diseases among Moroccan university students living on the public university campus in Marrakesh.

## MATERIAL AND METHODS

This is a cross-sectional study conducted on May 2019 in the university campus of Marrakech after taking the ethical approval from institutional ethics committee. Among the 3100 student living on the campus, only 460 consulted for dermatologic disorders

and consented to participate in the study. Demographic data was collected including age, gender and socio-economic level. The past medical history and duration of symptoms were noted and all the patients underwent physical screening. Additionally, each participant determined whether the skin problem affected or not the quality of life. Clinical photographs were taken.

## RESULTS

We included 460 individuals in the study accounting for 14, 8% of the campus university students. The mean age was 21, 2 years old. 56% were females and 44% males.

The average duration of symptoms was 11 months, for the majority (70% of cases) after settling in the university campus. Only 60 individuals (13%) had previously consulted for the dermatologic disorder and 68% of students declared a low socio-economic level.

Of all the recorded skin diseases [table 1], the inflammatory dermatoses were the most prevalent accounting for 37, 8% (174 cases), with a predominance of acne noted in 16, 9% of cases. The other

inflammatory dermatoses were contact eczema in 8,9% of cases, psoriasis in 6,9% of cases, urticaria in 4,1% of cases and rosacea in 1% of cases.

Infectious dermatoses were seen in 34, 3% of cases, with epidermomycosis on top of the list (16% of cases) including onychomycosis, pityriasis versicolor and dermatophytoses of glabrous skin. Scabies infection was found in 10% of cases followed by genital infections in 6, 1% of cases.

Hair pathology was reported in 25% of students mostly represented by hair loss (13, 3%) and dandruff (6,3%). While skin pigmentation disorders accounted for 2%.

Two cases of vitiligo and one case of hirsutism were recorded. No case of malignant disease was reported. Among all the participants, 80 % of cases affirmed that the dermatologic disorder negatively impacted their quality of life, particularly female students (55%).

Students diagnosed with chronic dermatological conditions were referred to dermatological consultation center of the Mohammed VI university hospital for further investigations and continuous follow up.

**Table-1: spectrum of dermatologic disorders in the study population**

Disease	%
<b>Inflammatory dermatoses</b>	<b>37,8%</b>
• Acne	16,9%
• Eczema	8,9%
• Psoriasis	6,9%
• Urticaria	4,1%
• Rosacea	1%
<b>Infectious dermatoses</b>	<b>34,1%</b>
• Onychomycosis	3%
• Pityriasis versicolor	9%
• Dermatophytoses of glabrous skin	4%
• Scabies	10%
• Genital infection	6,1%
• Viral warts	1%
• Cutaneous Herpes	1%
<b>Hair pathology</b>	<b>25%</b>
• Hair loss	13,3%
• Dandruff	6,3%
• Androgenetic alopecia	5%
• Alopecia areata	0,4%
<b>Pigmentation disorder</b>	<b>2,1%</b>
<b>Others</b>	<b>1%</b>
<b>Malignant disease</b>	<b>0%</b>

## DISCUSSION

Skin disorders have been recognized as the 4<sup>th</sup> leading cause of nonfatal disease burden in 2010 and 2013 [2], they are a major health problem in developing countries [5]. Their development may be the result of several factors like genetic, gender, race, socioeconomic status, nutrition, personal habits and age [3]. Therefore, the pattern of skin diseases varies between countries and even within regions [5].

Skin diseases are usually associated with a low mortality rate, but they may negatively influence individual's social life, daily activities, and psychological state [6]; especially among young people who have an increased awareness of their body image and beauty [3]. A Chinese study showed that depression, anxiety and sleep disturbance were more

common in patients with skin diseases compared with healthy controls among university students [1]. In our study, a negative impact on quality of life was found in 80% of cases.

Prevention of disfigurement and psychological sequelae of skin morbidities requires a proper management at earlier stages along with education of students [3]. Unfortunately, the state of health of the university students is poorly studied and researches in this area remain rare. Our results highlight the high morbidity of skin diseases in these population particularly inflammatory dermatoses.

Acne was the most frequent disorder as reported in other studies [3, 7, 8, 9]. This could be linked to the young age of the students, as acne is

generally considered a disease of the adolescence [10]. Moreover, hot weather and sun exposure are found to play a significant role in acne [11] which is compatible with Marrakesh hot climate.

The other inflammatory dermatoses were eczema, psoriasis and urticaria. Their frequency can be explained by increased emotional stress during college studies, which has been associated to the onset and exacerbation of these skin diseases [12, 13].

Hair loss was the second complaint after acne accounting for 13, 3%. We could incriminate poor and bad nutrition habits resulting in iron deficiency, stress and poor hair care.

Infectious dermatoses were the next most common problem, especially epidermomycosis and scabies. They are probably consequent to the poor hygienic conditions and hot humid environments which are created by overcrowding. Previous studies showed high percentages of fungal and parasitic infections among students living in dormitories [3, 4, 14]. This was the direct reflect of a low socio-economic level, characterizing 68% of cases in our study. In fact, socioeconomic factors contribute greatly to the epidemiology of skin disease and high household density is especially associated with transmissible skin disease [2]. Therefore, we took advantage of consultation during our study, to improve student's awareness about importance of personal and collective hygiene measures.

## CONCLUSION

The state of health of the campus university students is poorly studied. Observational studies should open the door to further researches in this specific population in order to improve their conditions. Despite the benignity of the skin diseases found, the establishment of a regular medical consultation and the strengthening of hygiene measures could help reduce this morbidity.

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