

## Research article

**Common dermatological complaints and their psychosocial impact: a descriptive cross-sectional study among undergraduates of an outstation university of Sri Lanka.**Parami Abeyrathna<sup>1\*</sup>, Tharindu Nadeesha<sup>1</sup>, Nuwani Malika<sup>1</sup>, Nawoda Wijerathna<sup>1</sup>, Suneth Agampodi<sup>1</sup><sup>1</sup>Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Saliyapura 500085, Sri Lanka**Abstract****Introduction**

Dermatological conditions are non-life-threatening but cause serious psychological stress among the young population. This study was conducted to determine the prevalence of selected self-reported dermatological conditions and their impact on university students.

**Methods**

A descriptive cross-sectional study was conducted in three faculties of the Rajarata University of Sri Lanka. A minimum of 200 undergraduates were selected from each faculty from simple random sampling. A validated, self-administered questionnaire was used in Sinhala and English all as e-forms and papers to assess the common dermatological complaints, duration, and associated psycho-social effects.

**Results**

Among 614 participants, 400 (65%) females and 214 (35%) males were included. More than half of the participants (n=326, 53%) reported a dermatological complaint during their university period and 277 reported a recurrent dermatological problem. Self-reported acne was the most reported (n=325) and diagnosed psoriasis (n=2) was the least reported condition of interest. Pityriasis versicolor prevalence was significantly highest among males (n=257) and dandruff was commonest among females (n=178).

The study has shown significant self-reported distress associated with dermatological conditions which make 89.7% of participants think dermatological conditions as something to worry about,  $p < 0.005$ . Common responses for dermatological conditions were self-medication (n=200, 32.5%) and consultation of any doctor (n=342, 55%)

**Conclusion**

The higher prevalence of dermatological conditions among university students should be addressed during health interventions. Psycho-social effects which can lead to personal and academic distress need to be intervened carefully to improve the quality of life

**Keywords:** Dermatological conditions among university students, Adolescent health, Acne, Psychosocial wellbeing**Copyright:** ©2023 Abeyrathna P *et al.*

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WHO describes health as a state of complete physical, mental and social wellbeing [1]. Dermatology involves the study of skin, nail and hair conditions which are very important for one's appearance and health. Though the majority of these conditions are non-life threatening, young generations may find these conditions major health problems.

Conditions such as acne vulgaris, pityriasis versicolor, scabies, candidiasis, seborrheic eczema, lichen planus, urticaria, viral warts, chicken pox, milleria, hypertrophic scars and keloids are found to be common among young population [2-6]. Psychiatric and psychological factors play an important role in dermatologic disorders [7-9]. Skin conditions especially, acne vulgaris have a chronic course and influence the quality of life with the increased cost of treatment, disfiguring cosmetic effects and psychosocial distress [9-11]. Acne vulgaris-associated disease burden exhibits a marked global distribution with a significant negative impact on the psychosocial well-being of the young population. Unfortunately, there are cases among young adults who had suicide ideation due to nuisance from acne, alopecia areata, atopic dermatitis and psoriasis [9]. Vitiligo is another chronic, recurrent, disfiguring illness which is a disfiguring illness which contributes to social isolation and lowers one's confidence and personality [12,13]. Some dermatological conditions like nail biting and nutrient deficiencies are common and cause social embarrassment and social anxiety among adult [2]. Alopecia is shown as distressing for young adults [8,14].

A proper assessment of the true burden of dermatological conditions, especially among the young population is a need considering its association with physical, social and mental well-being. The main objectives of this study was to determine the prevalence of selected self-reported dermatological complaints and describe the perceptions among university students towards those.

## Methodology

### Study design and setting

A descriptive cross-sectional study was conducted among 3 faculties of Rajarata University of Sri Lanka, including Faculty of Medicine and Allied Sciences, Faculty of Management Studies and Faculty of Agriculture.

The Rajarata University is one of the leading universities in Sri Lanka, giving higher education to

around 10000 students annually. The students represent from North to South, East to West, and up country to lower countries. A dry and warm climate prevails in the region with rainfall mainly from 2 seasons.

The location is vulnerable to many tropical diseases [15]. However, the healthcare facilities and education resources are considered to be poor in this setting [16].

### Study sample

The study included 184, 211 and 219 undergraduate students from agriculture, medicine and management faculties for the study including both males and females. The study sample excluded the first-year medical students as the study hypothesizes that the duration of stay can affect the dermatological complaints by geographical location.

### Ethical approval

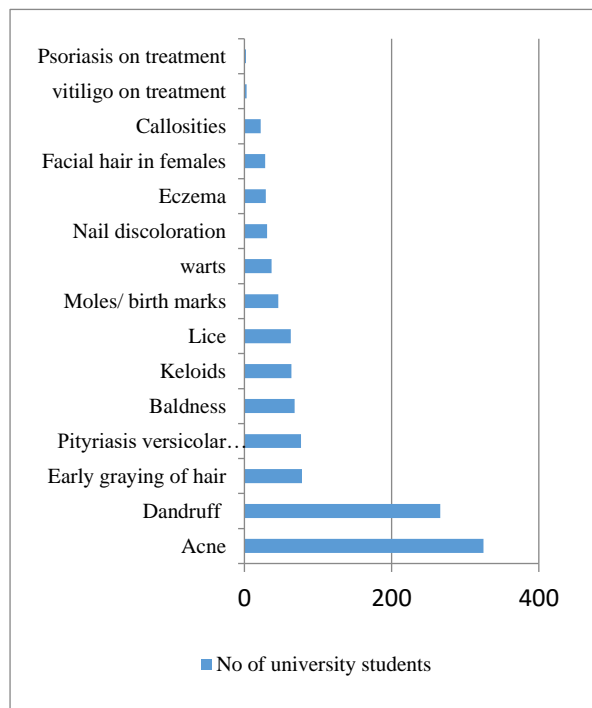
Administrative approval and ethical clearance was obtained from the ethics review committee of the Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka prior to data collection

### Data collection tool

A simple self-administered questionnaire was prepared in Sinhala medium. The terms used by the general population for common dermatological conditions in Sinhala were included in the questionnaire and later translated to English. The other variables assessed were socio-demographic details like gender, age, residence, duration of stay, hometown, details of dermatological conditions like name of the dermatological conditions from a list of lay terms and duration of symptoms, frequency of getting relapses, methods of health-seeking for the condition, method of self-medication, determinants like hygienic practices, nutrition, stressors. Perceived psychological and social effects of dermatological conditions like self-reported distress and social embarrassment were included as statements on the Likert scale. The experts and cognitive interviews were conducted to modify the questionnaire with descriptions for some dermatological conditions and in the English version medical terms were included. Pilot testing was done with 8 university students before the data collection process.

### Data collection

Data collection was done during academic hours in the lecture halls with informed written consent of the students. The investigators remained in the lecture halls throughout the data collection period.



**Figure 1:** Self-reported lifetime prevalence of a dermatological condition among undergraduate students of Rajarata University of Sri Lanka

### Data analysis

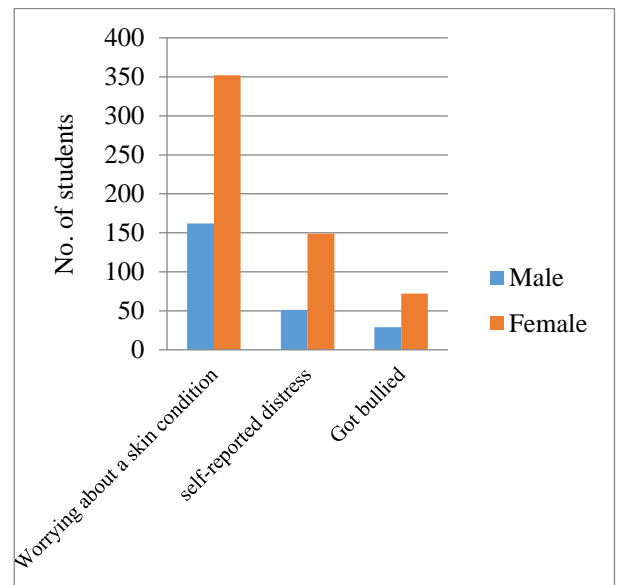
Data was analyzed using a Beta version of SPSS statistical software. Proportion of students with common dermatological conditions, relapses, seeking medical treatment and perceptions related to common dermatological conditions in the study setting were analyzed using the frequency tests.

The perceptions on psycho-social impact, different behaviors of interest, and different dermatological conditions were cross tabulated with chi squared test to assess any association.

### Results

A total of 634 students were invited into the study and 20 of them declined. The majority of the respondents were females (n=400, 65%). The mean age was 23 (SD 1.5) years. Most of the students stayed at hostels (n=550, 89%).

More than half of the students (n=326, 53.1%) have suffered a dermatological condition during their university period and a total of 437(71.2%) students have suffered at least once in their lifetime. Recurrent dermatological conditions were suffered by 277(45%)



**Figure 2:** The gender-wise distribution of psycho-social responses for dermatological conditions among undergraduates of Rajarata University of Sri Lanka.

respondents. The distribution of dermatological conditions showed 429(69.9%) skin-related complaints, 51(8.3%) nail-related and 198 (32%) hair conditions. Acne was the commonest complaint among both male and females (n=325).

Figure 1 summarizes the lifetime prevalence of some dermatological conditions of interest reported among sample population.

Most of the university students (89.7%, n=568) mentioned that dermatological conditions were “something to worry about”. Some of the reasons for concerns were “because it is a health issue” (n=403, 71.2%), effects on external appearance (n=219, 35.7%), self-reported distress (n=200, 29.5%) and social embarrassment (n=77, 12.5%). A total of 26% (n=160) of participants perceived that the presence of acne was humiliating.

A smaller portion of students (n= 66, 10.9%) have neglected the conditions, and the majority have received treatment either from a general doctor (n=225, 36%) or a specialist (n=117, 19%). Some students have self- medicated (n=144, 23.6%). Only 27 (4%) have undergone beauty surgery in their lifetime.

As shown in Figure 2, female students with dermatological conditions faced more peer bullying (n=72, 11%) and self-reported distress (n=149, 24%) compared to their male colleagues.

## Discussion

This study conducted to identify the common dermatological conditions, their impacts on psychosocial and physical wellbeing of university student.

Prior to our study there were few research studies conducted with regard to dermatological conditions among adolescents and university students [3, 5, 6, 17].

In most of the developing countries populations lacks proper knowledge on identifying serious medical illnesses [18] and especially mostly of the dermatological conditions are left untreated unless they affect their physical well-being. Irrespective of the gender students have got distressed, bullied due to the effects on external appearance.. This study emphasized that the attention given by most of the undergraduate students for dermatological conditions was less and at the university level, the psychological assistance should be reassured to the affected individuals [19].

Most important finding of the study is the significant association of presence of a dermatological condition to psychosocial well-being of the students. The mental distress were occurred due to physical disfiguration of the conditions, chronic nature of conditions e.g. vitiligo, peer humiliation and cost on the treatments. Youngers are so careful of their confidence based on external appearance and peer humiliation can reduce their performances [9, 11-13]. Other studies found that the common psychosocial effects of skin diseases like anxiety, depression have severely reduce quality of life of the students [13]. A study in India found that the presence of a dermatological condition was significantly associated with depression and low-quality life with chronic course [20]. Psychology-based dermatology practice with counselling and skilled doctor-patient communication is essential for managing distress due to dermatological conditions [7].

The presence of acne and mental distress has a bidirectional association [8]. The academic competition among university students has conveyed through

physical and mental issues in the students. It is important that universities need to conduct relaxation programs and strategic changes in academic schedules to support the health and well-being of the students.

High prevalence of dermatological conditions among university students raises the need for good health inspection programs conducted regularly to assess the hygienic conditions of students. Awareness among university students about dermatological conditions should be improved and encouraged to seek early health interventions. The healthcare staff in the universities should be trained with a certain amount of knowledge, skills and facilities on first contact diagnosis and treatment of dermatological conditions [21], especially to support students with mental distress

## Limitations

The questionnaire was developed in Sinhala and translated to English language with medical terminology. The linguistic validation of the questionnaire in 2 languages was a long and complicated process due to incompatible and non-specific terms used by the public for many dermatological conditions. The reliability of the complaints and the specification of self-reported dermatological conditions among the study population were the most challenging issues encountered in this study. The university students including most of the undergraduate medical students were lacked adequate knowledge on identifying different dermatological conditions. A session on common conditions assessed in the study were conducted to the participants before the data collection process as a solution to overcome this challenge.

## Conclusion.

The current study found a higher burden of dermatological conditions among university students which is related to self-reported psychological distress. The causative factors and psycho-social effects should be addressed by well implemented health programs.

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