RESEARCH PAPER

Study to assess the understanding and knowledge regarding the treatment of seborrheic dermatitis among students-A Cross-Sectional Study

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ABSTRACT

Introduction: Seborrheic dermatitis (SD) is a chronic, relapsing inflammatory condition affecting sebaceous gland–rich areas like scalp, face and chest. Despite its prevalence, knowledge gaps persist among health-profession students, underscoring the need for better educational strategies. Assessing their knowledge, attitude and practice (KAP) regarding SD, along with factors influencing treatment adherence, is essential for improving early recognition and management.

Materials and Methods: A cross-sectional study was conducted among 500 students of different health professions aged 18–26 years at our Academy. Students who had or had suffered from seborrheic dermatitis within the past three years were included. Validated questionnaire containing 21 items was used to assess KAP. Data expressed as frequency and percentages and associations assessed using Chi-square test, $p < 0.05$ considered statistically significant.

Results: 80.2% of participants demonstrated good knowledge regarding SD, recognizing Malassezia species as the main etiological agent. Attitude of managing recurrence was 53.4% and adherence towards treatment was 69.8%. Regular scalp hygiene was followed by 92.4% and periodic dermatologist follow-up 53%. Compliance with management practices was relatively low. Despite adequate knowledge, no significant associations ($p > 0.05$) were observed between knowledge, attitude, and practice.

Conclusion: Students had good knowledge about seborrheic dermatitis, their practice, adherence and attitude were suboptimal. Educational reinforcement is essential to bridge this gap and promote evidence-based dermatological practices.

Keywords: Seborrheic dermatitis, Knowledge, Attitude, Practice, health professions..

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INTRODUCTION

Seborrheic dermatitis (SD) is a common, chronic, and relapsing inflammatory skin disorder that affects individuals across all age groups worldwide.[1] Clinically, it is characterized by erythematous lesions with greasy scales, predominantly involving sebaceous gland rich regions such as the scalp, face and upper trunk. The condition often correlates with psychological stress and lifestyle factors, which may exacerbate its presentation and recurrence. Globally, the prevalence of seborrheic dermatitis is estimated to be around 11.6%, with incidence increasing significantly after the age of twenty.[2] A mild form of scalp seborrheic dermatitis appears as dandruff, which is very common but often missed. Although dandruff is non-contagious and generally harmless, it can lead to embarrassment, lower self-confidence, and difficulty concentrating, especially among students. The tendency for self-medication, common among students remains high despite their awareness of the potential risks of unsupervised treatments.[3,4]

The pathogenesis of seborrheic dermatitis is multifactorial, with Malassezia yeasts playing a central role in disease development. The other contributing factors include genetic predisposition, hormonal influences, environmental triggers, stress, sleep deprivation, immunological imbalance, hyperhidrosis, inappropriate use of cosmetic products, and climatic variations such as humidity and temperature.[5] These diverse factors not only perpetuate inflammation but also explain the variable clinical response and frequent relapses observed among affected individuals. Seborrheic dermatitis can have a significant psychosocial impact, leading to discomfort, stigmatization, and withdrawal from social interactions. Patients commonly seek temporary relief using over the counter anti-dandruff shampoos containing antifungal, keratolytic or anti-inflammatory agents. However,

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inadequate knowledge, misconceptions, and irregular adherence to treatment contribute to poor outcomes and frequent recurrences.[5]

Seborrheic dermatitis is one of the most prevalent dermatological conditions with misconception about its causes and management, particularly among students.[4] Many rely on non-scientific sources or informal advice, leading to inconsistent management strategies. Limited research, particularly from the Indian context, has explored the knowledge, attitude, practices (KAP) and treatment adherence of students with respect to seborrheic dermatitis, raising concerns about their preparedness to recognize and manage such condition effectively. Recognizing these gaps, the present study was undertaken to evaluate the level of awareness and treatment practices regarding seborrheic dermatitis among students.

MATERIALS AND METHODS:

A cross-sectional study was carried out among health professional students affiliated to our Academy. The study protocol was reviewed and approved by the Central Ethics Committee (CEC), Sri Devaraj Urs Academy of Higher Education and Research (SDUAHER)Kolar, Karnataka, India, SDUAHER/R&D/CEC/SDUMC-PG/83/NF/2025–26, dated 14/05/2025 and completed with-in 3months (June to September 2025). Written informed consent was obtained from all the participants prior to enrolment. The study included students who either currently had or previously experienced seborrheic dermatitis and were willing to participate and the study adhered to ethical principles of the Declaration of Helsinki

The sample size was calculated using the formula :n = $z^2.p.(1-p)/d^2$. The calculated sample size was 384 but 500 were recruited. Students of either gender between 18 and 26 years of age were included and who had or had suffered from seborrheic dermatitis within the past three years were eligible to participate. Those with seborrheic dermatitis associated with systemic diseases were excluded.

Data was collected using a pre-designed and validated structured questionnaire, which serves as the primary data collection tool. The questionnaire was comprising sections evaluating the knowledge, attitude, and practice (KAP) related to seborrheic dermatitis treatment and was piloted in twenty students. The questionnaire consisted of 21 items, 6 related to knowledge, 8 related to attitude and 7 related to practice. The internal consistency of the questionnaire was tested using Cronbach's alpha, with an overall reliability coefficient of 0.82, indicating good internal reliability. Questions were concise, clearly worded, and designed for easy comprehension. Data collection was carried out through direct interaction using Google forms, where the principal investigator recorded responses in real time. Each domain of the KAP questionnaire was scored to classify participants into levels of knowledge, attitude, and practice. The knowledge section (6 items) awarded one point for each correct response and was categorized as Good (5–6), Moderate (3–4) and Poor (0–2). The attitude section (8 positively scored items) assigned one point for each positive response and was classified as Positive (5–8), Neutral (3–4) and Negative (0–2). The practice section (7 items) similarly awarded one point for each appropriate practice and was categorized as Good (5–7), Moderate (3– 4) and Poor (0–2). These scores were used for subsequent statistical analysis, including chi-square testing of associations between KAP domains. A p-value < 0.05 was considered statistically significant. This study followed STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines.

RESULTS:

A total of 500 students of different heath profession participated in the study, with a mean age of 21.79 ± 1.73 years, 349 (69.8%) females and 151 (30.2%) males. Most of them were in age group of 21-23 years Figure 1.

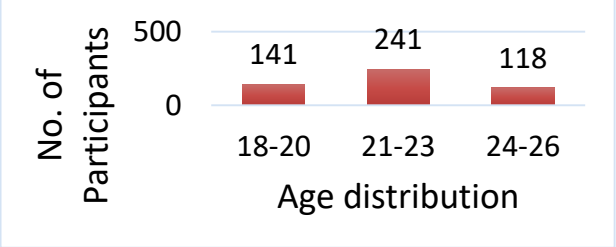

Figure 1. Age group distribution

Regarding knowledge most respondents correctly identified Malassezia yeast as the primary causative factor (96%) and expressed common sites of involvement as scalp, face, and chest (99%) Table 1. A large proportion also acknowledged yeast overgrowth as a major predisposing factor (80.2%). However, gaps were noted in recognizing complications, as hair loss was frequently perceived as the major complication (98.4%), while very few identified psoriasis, suggesting partial understanding of disease associations and differentials. The findings indicate a good level of knowledge among participants regarding seborrheic dermatitis.

When attitude was assessed, majority said that they would not avoid contact with affected individuals (97%), indicating good social acceptance Table 1. While over 50% of them felt somewhat confident in managing recurrences, a considerable proportion still lacked confidence, highlighting the need for reinforcement through education. Most respondents perceived medical education as important and acknowledged that seborrheic dermatitis affects daily life to some extent, reflecting awareness of its chronic and relapsing nature of disease. Overall, participants demonstrated a positive and non-stigmatizing attitude toward seborrheic dermatitis.

Table 1. Responses to knowledge, attitude, practice, treatment adherence & compliance

Knowledge	Frequency	Percentage
Primary cause of seborrheic dermatitis -fungi/bacteria	480/ 20	96/ 4
Scalp, face and chest involvement/ Arms ang legs involvement/ Palms and soles involvement	495/3/2	99/ 0.6/ 0.4
Malassezia yeast overgrowth as major factor/ Low humidity as a contributing factor	401/99	80.2/19.8
Corticosteroids used short term only/ as primary treatment	358/130	71/26
Hair loss as major complication	492	98.4
Recognized psoriasis as complication	4	0.8
Attitude		
Would avoid contact with SD patient: No/Yes	485/15	97/ 3
Confident in managing recurrence- Somewhat/ No	267/177	53.4/ 35.4
Medical education- somewhat important/ very important	231/124	46.2/24.8
SD affects daily life- somewhat/Not sure	235/160	47/32
Perceive lifestyle modification – not effective/somewhat	248/216	49.6/43.2
Do you think OTC medications are a reliable first-line treatment for SD-No, proper diagnosis is essential/Sometimes, but professional guidance is needed	272/200	54/40
Believe condition can be completely cured (Maybe)	393	78.6
When should dermatologist be consulted for seborrheic dermatitis-Only in severe cases/Failure of standard treatment	265/163	53/32.6
Practice / Adherence		
Non-pharmacological measures used- frequent washing	293	58.6
Frequency of scalp washing-Twice per week	462	92.4
Self-medication – Always consult doctor/sometimes	290/85	58/17.0
All topical agents combined	26	5.2
Corticosteroids used short-term only	358	71.0
Options followed for treatment of SD- Online sources and social media	325	65
Continue medication until symptoms resolve	349	69.8

Practice patterns showed reasonable adherence to standard management strategies, with common use of topical corticosteroids, antifungals, and keratolytic agents. The majority reported appropriate short-term use of corticosteroids, regular scalp hygiene, and periodic dermatology follow-up Table 1. However, reliance on online or social media sources for advice and instances of self-medication were notable, indicating suboptimal practices in some participants. These findings suggest that while overall practices are satisfactory, there remains a need to promote evidence-based treatment adherence and discourage unsupervised management.

Association between knowledge, attitude and practice

The association between levels of knowledge and attitude are shown in Table 2.

Table 2. Knowledge and attitude

Knowledge	Positive attitude	Neutral attitude	Poor attitude	P value
Good	239	103	38	0.99
Moderate	57	24	9	
Poor	19	8	3	

The analysis showed no statistically significant association between knowledge and attitude toward seborrheic dermatitis and its management (p = 0.99). Although students with good knowledge numerically demonstrated a more positive attitude compared to those with moderate or poor knowledge, this difference was not statistically significant, indicating that higher knowledge levels did not necessarily translate into a more favourable attitude.

The association between levels of knowledge and practice/adherence are shown in Table 3.

Table 3. Knowledge and practice/adherence

Knowledge	Regular adherence	Occasional adherence	Non adherence	P value
Good	160	137	84	0.99
Moderate	38	32	20	
Poor	13	11	7	

Similarly, no significant association was observed between knowledge and practice/adherence (p = 0.99). Participants with good knowledge exhibited slightly better regular adherence to treatment; however, comparable proportions of occasional adherence and non-adherence were also seen across all knowledge categories. This suggests that adequate knowledge alone was insufficient to ensure optimal treatment adherence. The association between levels of attitude and practice/adherence are shown in Table 4.

Table 4. Attitude and practice/adherence

Attitude	Regular adherence	Occasional adherence	Non-adherence	P value
Positive	132	113	69	
Neutral	57	49	30	
Poor	21	18	11	0.99

Furthermore, the association between attitude and practice/adherence was also not statistically significant (p = 0.99). Even though participants with a positive attitude tended to show better regular adherence, the lack of statistical significance implies that attitude did not independently influence treatment practices.

DISCUSSION

This cross-sectional study explored the knowledge, attitude, and practice (KAP) related to the treatment of seborrheic dermatitis (SD) among students. The results indicate that most participants possessed sound knowledge regarding SD, with 80.2% correctly identifying *Malassezia* species as the primary etiological agent. These findings support earlier research that highlighted fungal colonization as a central factor in the disease pathogenesis.[1,5]Awareness about corticosteroid use, antifungal therapy, and complications such as hair loss was also commendably high, suggesting a satisfactory baseline understanding of SD management among the respondents.

A positive attitude toward SD management was evident in 53.4% of participants, and most respondents opined the importance of medical education in enhancing awareness and clinical judgment. These findings are in agreement with Naothavorn et al.[6], who demonstrated that academic environment and exposure play a vital role in shaping the professional attitude of medical students. 97% of our study participants had no hesitation in interacting with individuals affected by SD, reflecting a welcome reduction in social stigma when compared to earlier studies from South Asia that noted prevalent misconceptions and negative perceptions.[7,8]

In terms of treatment practices, a substantial proportion of students reported using topical agents such as betamethasone and ketoconazole, aligning with standard dermatological treatment guidelines, however, 17% admitted occasional self-medication, a finding that warrants attention. Batalla et al**,**[3] similarly documented widespread self-medication among nursing professionals, largely attributing to easy access to topical formulations and limited clinical supervision. Wikanto et al**,**[2] also observed that students frequently relied on over-the-counter shampoos and online sources for dandruff management patterns mirrored in our cohort, where 65% cited non- professional or digital platforms as their primary reference. Treatment adherence and compliance were moderate, with 69% of participants following prescribed regimens and 80% maintaining regular follow-up visits. These findings are comparable to those of Roy et al,[4] who stressed the pivotal role of patient education in sustaining remission and preventing relapse. It is encouraging that the majority restricted corticosteroid containing shampoos to short-term symptom control, reflecting sound awareness of potential adverse effects and an inclination toward evidence-based decision-making.[9]

The results of association as per Table 2,3,4 highlights a disconnect between knowledge, attitude, and actual practice, underscoring the need for targeted behavioural and practical training interventions to improve evidence-based management of seborrheic dermatitis. A discernible gap persists between theoretical knowledge and its practical application. The continued reliance on informal treatment advice emphasizes the need for structured dermatology teaching modules and periodic awareness programs. They should also be warned about the various precipitating factors including intake of drugs, nutritional deficiency.[10] Furthermore, the psychosocial impact of SD deserves greater attention. Evidence from Abeyrathna et al,[7] and other regional studies underscores that dermatological conditions can adversely affect self-esteem, academic focus, and interpersonal relationships. Addressing these aspects through integrative care that combines dermatological, psychological, and lifestyle management may enhance overall treatment outcomes and quality of life.

Limitation

This was a single-centre study, questionnaire-based study including only students from different health professions so caution should be exercised in extrapolating the results to students of different educational or general population.

CONCLUSION

The participants demonstrated adequate knowledge regarding the causes, symptoms, and management of seborrheic dermatitis. There is knowledge gap existing between awareness and effective implementation of practice methods. This finding underscores the importance of enhancing awareness initiatives and practical training on seborrheic dermatitis to promote evidence-based management and improve treatment outcomes among students of different healthcare professions.

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