

Exploring the phenomenon of social appearance anxiety in individuals suffering from seborrheic dermatitis: Comprehensive insights derived from a case-control study

 Mustafa Tumturk,¹  Nazli Caf,¹  Faruk Kurhan²

¹Department of Dermatology and Venereology, University of Atlas, Istanbul, Turkiye

²Department of Psychiatry, Van Yuzuncu Yil University, Van, Turkiye

ABSTRACT

OBJECTIVE: The primary objective of our meticulously designed study is to thoroughly investigate and delineate the extent to which individuals afflicted with seborrheic dermatitis, particularly those exhibiting facial manifestations of this dermatological condition, experience significant psychological distress that may adversely impact their self-perception as measured by the Social Appearance Anxiety Scale (SAAS), while simultaneously comparing these findings against a group of healthy individuals serving as controls.

METHODS: In the framework of our research, we meticulously recruited a sample comprising 120 individuals diagnosed with seborrheic dermatitis characterized by facial involvement, whose ages ranged from 18 to 65 years, alongside 118 healthy control participants who were strategically matched for key demographic variables, including age, gender, and educational attainment to ensure the integrity of our comparative analysis. Both the patient participants and the healthy controls underwent a systematic administration of a range of validated psychometric tools, particularly the SAAS and the Hospital Anxiety and Depression (HAD) scale. Further, the Dermatology Life Quality Index (DLQI) and Visual Analog Scales (VAS) were exclusively utilized for the subset of individuals within the patient population.

RESULTS: Through comprehensive statistical analysis, the mean scores acquired from the Social Appearance Anxiety Scale (SAAS) for the patient and control groups were 52.10 and 21.35 points, respectively. Accordingly, it was concluded that the average SAAS score observed in the patient group was substantially higher than that recorded in the control group, with a p-value of less than 0.01 reflecting a statistically significant observation.

CONCLUSION: The presence of seborrheic dermatitis lesions located on visible areas of the skin engenders a notable degree of anxiety among affected individuals, primarily stemming from concerns regarding their physical appearance. This investigation underscores the critical need for individuals experiencing such dermatological manifestations to receive holistic treatment that addresses their psychiatric and dermatological needs.

Keywords: Psychological distress; seborrheic dermatitis; social appearance anxiety.

Cite this article as: Tumturk M, Caf N, Kurhan F. Exploring the phenomenon of social appearance anxiety in individuals suffering from seborrheic dermatitis: Comprehensive insights derived from a case-control study. *North Clin Istanbul* 2025;12(2):216–221.

A significant array of dermatological conditions, which encompasses various ailments such as acne vulgaris, urticaria, atopic eczema, psoriasis, seborrheic dermatitis, atopic dermatitis, and alopecia areata, falls within the classification of psychosomatic disorders, a category of health issues that can be exacerbated and



Received: January 14, 2025

Revised: March 03, 2025

Accepted: March 18, 2025

Online: April 24, 2025

Correspondence: Mustafa TUMTURK, MD. Atlas Universitesi Tip Fakultesi, Deri ve Zuhrevi Hastaliklar Anabilim Dalı, Istanbul, Turkiye.

Tel: +90 850 450 34 39 e-mail: mustafatumturk@yahoo.com

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made more severe by the pressures and strains of emotional stress [1]. Empirical studies and clinical research have indicated that psychiatric factors, including but not limited to anxiety disorders, depressive symptoms, and various forms of stress, are responsible for triggering approximately thirty percent of all dermatological diseases encountered in clinical practice [2]. Seborrheic dermatitis, a common skin condition characterized by red, flaky patches, predominantly afflicts both adolescents and adult populations, with a notable prevalence among male individuals, who seem to experience this disorder more frequently than their female counterparts [3]. Seborrheic dermatitis is a chronic and persistent inflammatory dermatosis that primarily affects the facial and scalp regions, particularly those areas rich in sebaceous glands. The manifestation of this condition varies according to the clinical severity experienced by patients and may present as erythematous plaques, oily scales, and pruritus [4]. The principal etiopathogenetic factors contributing to this condition encompass *Malassezia* colonization, sebaceous gland function, and individual predisposition [5].

Seborrheic dermatitis constitutes one of the most prevalent dermatoses, and the association between seborrheic dermatitis and psychological factors has been rigorously examined over an extended period. Pre-existing lesions in individuals afflicted with seborrheic dermatitis may exacerbate in response to emotional stress, and psychological and psychiatric disorders may manifest in patients experiencing the aggravation of their lesions [6]. Various case series have documented patients with seborrheic dermatitis who concurrently exhibit psychological disorders, including anxiety, depression, and suicidal ideation [7]. It is posited that anxiety serves as a contributing factor that exacerbates the condition in numerous patients suffering from seborrheic dermatitis [8].

Numerous investigations have established a heightened incidence of anxiety in individuals afflicted with seborrheic dermatitis, and a direct correlation between the intensity of anxiety and the severity of seborrheic dermatitis has been suggested. Certain studies have indicated that the psychological disturbances observed are not significantly associated with age and gender. In contrast, other research has posited that psychological disorders are more prevalent among female subjects [9].

The integumentary system substantially influences an individual's physical appearance, a factor critical in maintaining one's physical, psychological, and social well-being. The visage constitutes a pivotal element in

Highlight key points

- Patients with seborrheic dermatitis exhibit significantly higher levels of anxiety, depression, and social avoidance compared to healthy controls, emphasizing the considerable psychological burden of the condition.
- Visible lesions in prominent facial areas are strongly linked to increased social appearance anxiety and a substantial decrease in self-esteem among affected individuals.
- A significant positive correlation was found between social appearance anxiety and psychological measures (HAD anxiety and depression), as well as dermatological quality-of-life indices (DLQI and VAS).
- Seborrheic dermatitis notably diminishes patients' quality of life, severely affecting their social interactions and emotional well-being.

the assessment of human attractiveness. Consequently, dermatoses, particularly those localized on the facial region, may lead to decreased physical and psychological health, diminished self-worth, and difficulties in social engagements [10]. The anxiety disorder stemming from the societal perception of individuals is typified by excessive, irrational, and enduring trepidation and distress in contexts necessitating social performance, such as engaging with unfamiliar individuals, participating in group discussions, or being scrutinized during the consumption of food or beverages. Individuals affected by this condition harbor a profound apprehension of being subjected to negative evaluations by others, which results in avoiding social interactions [11, 12].

MATERIALS AND METHODS

This investigation constitutes a descriptive cross-sectional analysis. Participants who exhibited facial involvement and willingly consented to partake in the research were diagnosed with seborrheic dermatitis within the dermatology outpatient clinic of YYU Faculty of Medicine. The parameters for inclusion required that subjects fall within the age spectrum of 18 to 65 years. The assessment instruments were administered to participants possessing literacy skills, specifically those who had attained at least a primary school education. Those participants without concurrent psychiatric or dermatological conditions were incorporated into the sample.

The patient group, which consisted of individuals selected for the study, underwent a comprehensive evaluation process utilizing an array of assessment tools including the Sociodemographic Data Form, the Hospital

Anxiety Depression Scale (HAD), the Social Appearance Anxiety Scale (SAAS), the Visual Analogue Scale (VAS), and the Dermatology Life Quality Index (DLQI), all of which are designed to gather detailed information regarding various psychological and dermatological factors affecting the patients' quality of life. Conversely, the control group, which served as a comparative baseline for the research, was subjected to a more streamlined assessment methodology through the application of the Sociodemographic Data Form, the Social Appearance Anxiety Scale (SAAS), and the Hospital Anxiety Depression Scale (HAD), thereby allowing for a focused analysis of specific variables without the inclusion of the additional measures employed for the patient group. This comparative approach not only facilitated a nuanced understanding of the differences in mental health and quality of life indicators between the two groups but also underscored the importance of employing a multifaceted assessment strategy in clinical research to capture the complexities inherent in patient experiences and outcomes.

The requisite written approvals for conducting the study were secured from the Van Yuzuncu Yil University Non-interventional Clinical Research Ethics Committee, encompassing participants with the decision number 2020/02-12 dated 21/02/2020. Volunteering participants who executed informed consent documentation were subsequently integrated into the study. The study was conducted in full compliance with the principles outlined in the Declaration of Helsinki.

Statistical Analysis

Descriptive statistics were applied to represent the demographic and clinical features of the case and control groups. The significance of the differences observed between the two groups was evaluated utilizing the independent samples t-test. The Pearson correlation coefficient was calibrated to ascertain the relationships among the variables. The statistical evaluation was undertaken employing the SPSS software package, version 22.0 (Armonk, New York: IBM Corp.), with the criterion for significance determined at $p < 0.05$.

RESULTS

A total of one hundred and twenty individuals diagnosed with seborrheic dermatitis (48 male and 72 female) and one hundred and eighteen control subjects (50 male and 68 female) were incorporated into the research study. The av-

TABLE 1. Sociodemographic characteristics of the patient and control groups

Variable	Patients (n=120)	Controls (n=118)	p
Age (years, Mean±SD)	27.10±6.12	27.05±5.89	0.920
Gender (%)			0.712
Male	40.0	42.4	
Female	60.0	57.6	
Marital status (%)			0.932
Single	66.7	66.1	
Married	33.3	33.9	
Educational status (%)			0.758
Primary school	16.7	18.6	
High school	41.7	40.7	
University	41.7	40.7	
Occupation (%)			0.851
Student	33.3	32.2	
Employed	50.0	49.2	
Unemployed	16.7	18.6	

SD: Standard deviation.

erage ages of the seborrheic dermatitis group and the control group were recorded as 27.10 ± 6.12 and 27.05 ± 5.89 years, respectively. The demographic variables, including age, gender, marital status, educational attainment, occupation, and other sociodemographic characteristics of the respective groups, are presented in Table 1.

According to the results derived from the t-test analysis, it was determined that there was no statistically significant difference ($p > 0.05$) observed in the distribution of age and gender between the groups categorized as seborrheic dermatitis patients and those comprising the control groups. Nevertheless, it is worth noting that the scores obtained from the Hospital Anxiety and Depression (HAD) anxiety subscale, the HAD depression subscale, alongside the Social Avoidance and Distress Scale (SAAS) values, were identified to be markedly elevated in the patient group when contrasted with the control group, achieving a statistically significant level ($p < 0.05$) as illustrated in Table 2. The disparity in mean SAAS scores between the patient group and the control groups was confirmed to be statistically significant, reflecting a notable difference in the psychological assessments made. Specifically, the average SAAS scores recorded

TABLE 2. Comparison of anxiety, depression, and social appearance anxiety scores between patients and controls

Scale	Patients (Mean±SD)	Controls (Mean±SD)	p
SAAS	52.10±10.12	21.35±8.45	<0.01
HAD-A	9.10±3.50	5.20±2.30	<0.05
HAD-D	7.30±2.80	3.90±1.90	<0.05

SD: Standard deviation; SAAS: Social Appearance Anxiety Scale; HAD-A: Hospital Anxiety and Depression Scale - Anxiety; HAD-D: Hospital Anxiety and Depression Scale - Depression.

for the patient group and the control group were 52.10 and 21.35 points, respectively, highlighting a substantial variation in the social avoidance and distress experienced by the two populations. Consequently, it was ascertained that the mean SAAS score for the patient group was significantly higher when compared to that of the control group, achieving a noteworthy level of statistical significance ($p<0.01$), as delineated in Table 2.

The variations detected between the patient and control populations concerning average scores on the HAD depression subscale were statistically significant. The average HAD depression subscale scores for the patient and the control groups were recorded at 9.10 and 5.20 points, respectively. As a result, it was determined that the mean scores of the HAD depression subscale for the patient groups were significantly higher than those of the control group ($p<0.05$) (Table 2).

Findings Derived from the Correlation Analysis Pertaining to the Patient Group

The computed correlation coefficient between the SAAS scores and the HAD anxiety subscale scores was found to be 0.760 (76.0%), indicating a statistically significant relationship ($p<0.01$). This implies that as the SAAS scores rise among the subjects in the patient group, there is a corresponding elevation in the HAD anxiety scores (Table 3).

The correlation coefficient established between the SAAS scores and the HAD depression subscale scores was measured at 0.505 (50.5%), suggesting a statistically significant relationship ($p<0.01$). This denotes that an elevation in the SAAS scores of participants within the patient group correspondingly led to an increase in HAD depression scores.

TABLE 3. Correlation analysis for the patient group

Variable	SAAS (r)	p
HAD-A	0.760	<0.01
HAD-D	0.505	<0.01
DLQI	0.415	<0.01
VAS	0.615	<0.01

HAD-A: Hospital Anxiety and Depression Scale - Anxiety; HAD-D: Hospital Anxiety and Depression Scale - Depression; DLQI: Dermatology Life Quality Index; VAS: Visual Analogue Scale; SAAS: Social Appearance Anxiety Scale.

TABLE 4. Correlation analysis for the control group

Variable	SAAS (r)	p
HAD-A	0.320	<0.05
HAD-D	0.290	<0.05

HAD-A: Hospital Anxiety and Depression Scale - Anxiety; HAD-D: Hospital Anxiety and Depression Scale - Depression.

The correlation coefficient derived between the SAAS score and the Dermatology Life Quality Index (DLQI) was recorded to be 0.415 (41.5%), which also demonstrated a statistically significant relationship ($p<0.01$). Thus, it can be inferred that as the SAAS scores among the patient group intensified, the DLQI values concurrently increased (Table 3).

It was found that the correlation coefficient calculated between the Social Anxiety Assessment Scale (SAAS) and the Visual Analogue Scale (VAS) was 0.615 (61.5%), signifying a statistically significant relationship ($p<0.01$). In a more precise formulation, as the SAAS scores of individuals within the patient group increased, there was a corresponding increase in the VAS scores (Table 3). The correlation metrics within the control group are demonstrated in Table 4.

DISCUSSION

In the present study, a comparative examination was undertaken between the patient and the control group of healthy individuals. The levels of anxiety observed in individuals suffering from seborrheic dermatitis, attributed to societal perceptions, were found to be significantly higher in comparison to those of the healthy participants.

Our results demonstrated that the lesions manifested in patients in regions considered visible, such as the forehead, cheeks, and chin, were correlated with a substantial increase in anxiety levels.

Numerous dermatological conditions may elicit psychological distress in addition to showing physical symptoms. In literature, Silvaes et al. [13] aim to investigate the psychological impact of dermatological condition, chronic spontaneous urticaria. It is important to evaluate the distress in dermatological conditions [14].

Although there exists a substantial body of literature addressing psychiatric morbidity among individuals with dermatological disorders, the anxiety experienced by patients with seborrheic dermatitis, particularly as it relates to their social appearance, has yet to receive adequate scholarly attention.

The aesthetic presentation of the epidermis holds significant implications for an individual's self-concept and social engagement [15]. Seborrheic dermatitis is associated with both psychosocial challenges and physical decline [16]. Research indicates that individuals suffering from moderate to severe seborrheic dermatitis exhibit compromised body image perception, foster diminished self-esteem, and tend to eschew social endeavors that necessitate active participation [17].

In prior research, it has been demonstrated that lesions associated with seborrheic dermatitis have a detrimental impact on the psychological well-being of patients, exacerbating their levels of anxiety and depression while also increasing the probability of recurrence [18]. Individuals affected by chronic dermatological conditions exhibit elevated levels of social appearance anxiety, with significant rates of psychosocial issues, including diminished self-esteem and social phobia, being prevalent [19].

In the present comparative study, a statistically significant association was identified between the anxiety levels of individuals afflicted with seborrheic dermatitis and their scores on the Visual Analog Scale (VAS) and the Dermatology Life Quality Index (DLQI). In a more precise interpretation, there was a positive correlation whereby an increase in DLQI and VAS scores corresponded with an elevation in Social Appearance Anxiety Scale (SAAS) values. This finding underscores the substantial detrimental impact of seborrheic dermatitis on the overall quality of life experienced by affected individuals.

In many studies in the literature about dermatological problems there isn't a control group. In the study of Silvaes et al. [13], 48% of patients were diagnosed with one or more mental disorders. Similar to the study, our patients have elevated anxiety scores of 50%. Depression score was lower in seborrheic dermatitis reverse to the chronic urticaria patients in this study (7.30–21%) [12, 20].

Our investigation does indeed possess certain constraints that should be acknowledged in the context of our findings. To begin with, it is essential to recognize that the total number of participants involved in our research is comparatively small, potentially impacting the applicability of the results we have attained. Secondly, our methodology involved a cross-sectional research design, a choice that inherently restricts our ability to draw definitive causal inferences regarding the relationships observed within the data. Thus, future research initiatives must emphasize enhanced sample sizes and adopt longitudinal study frameworks to explore and clarify the psychosocial impacts of seborrheic dermatitis more effectively.

Conclusion

Seborrheic dermatitis, characterized by the formation of lesions that manifest prominently on the visible surfaces of the skin, often induces a significant level of anxiety and psychological distress in individuals who are affected by this dermatological condition, primarily due to the unsightly nature of these lesions and their impact on one's self-esteem and social interactions. Consequently, the clinical implications of this condition suggest that individuals who present with seborrheic dermatitis lesions should be considered for a comprehensive treatment regimen that encompasses both psychiatric interventions aimed at addressing the emotional and psychological ramifications, as well as dermatological therapies that target the physical manifestations of the disease itself.

Ethics Committee Approval: The Van Yuzuncu Yil University Non-interventional Clinical Research Ethics Committee granted approval for this study (date: 21.02.2020, number: 2020/02-12).

Authorship Contributions: Concept – MT, FK; Design – MT; Supervision – MT, FK; Fundings – MT, FK; Materials – MT, FK; Data collection and/or processing – MT, FK; Analysis and/or interpretation – MT, NC, FK; Literature review – MT, NC, FK; Writing – MT, NC, FK; Critical review – MT, NC, FK.

Conflict of Interest: No conflict of interest was declared by the authors.

Use of AI for Writing Assistance: The authors declared that this manuscript does not involve AI-assisted technologies such as large language models, chatbots, or image creators.

Financial Disclosure: The authors declared that this study has received no financial support.

Peer-review: Externally peer-reviewed.

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