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Original Article

Evaluating the frequency of anxiety and depression among patients referred to a dermatology outpatient clinic

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Abstract

Aim: Psychiatric comorbidities such as anxiety and depression are frequently observed among dermatologic patients and can significantly impair quality of life. Understanding the frequency and associated factors of these conditions is critical for improving holistic dermatologic care. To evaluate the frequency of anxiety and depression among patients attending a dermatology outpatient clinic and to examine their associations with demographic variables, disease groups, and clinical characteristics.

Materials and Methods: This cross-sectional study included 771 patients referred to the Clinic of Dermatology and Venereal Diseases at Ankara Training and Research Hospital over a 6-month period. Dermatologic diagnoses were categorized into 17 disease groups. All participants completed a sociodemographic questionnaire and the Hospital Anxiety and Depression (HAD) scale. Data were analyzed using SPSS, with significance set at $p<0.05$.

Results: Anxiety and depression were identified in 21.7% and 38.7% of patients, respectively. Anxiety was significantly more prevalent in females ($p=0.002$), whereas depression showed no gender difference ($p=0.081$). Higher rates of anxiety and depression were observed among single individuals, unemployed patients, and those with lower educational attainment ($p<0.05$). Patients with chronic comorbidities and those with a family history of psychiatric disorders also exhibited significantly elevated rates ($p<0.05$). Depression was significantly prevalent among acne patients (33%; $p<0.05$), while both anxiety and depression were prominent in psoriasis patients, with depression reaching statistical significance (65%; $p=0.014$).

Conclusion: Anxiety and depression are common among dermatologic outpatients and are influenced by demographic, socioeconomic, and clinical factors. These findings underscore the necessity of incorporating routine psychological assessment and support into dermatologic practice to optimize patient well-being and treatment outcomes.

Keywords: Anxiety, depression, hospital anxiety and depression scale, psychodermatology

INTRODUCTION

The skin, as the body's primary interface with the external environment, plays a central role in responding to internal and environmental changes. Psychiatric disorders may precipitate or exacerbate various dermatologic conditions, while dermatologic diseases can likewise contribute to the onset or worsening of psychiatric symptoms due to their impact on body image, social functioning, and chronic stress. Previous studies estimate that psychiatric disorders are present in approximately 30–40% of patients attending dermatology outpatient clinics (1,2). Dermatologic conditions such as psoriasis, eczema, dermatitis artefacta, Behçet's disease, and alopecia areata are frequently associated with psychological comorbidities (3), highlighting the substantial overlap between dermatologic and psychiatric presentations in clinical practice.

In this study, anxiety is defined as an affective disorder characterized by persistent inner tension and subjective feelings of apprehension regarding anticipated events. Depression is defined as a mood disorder marked by persistent low mood, reduced motivation, and diminished interest or pleasure in daily

activities, all of which significantly impair overall well-being. Participants were assessed using the Hospital Anxiety and Depression (HAD) Scale, and each individual completed the instrument following their clinical evaluation.

Accordingly, the purpose of the present study is to evaluate the frequency of anxiety and depression among dermatology outpatients and to examine their associations with demographic, socioeconomic, and clinical factors.

MATERIALS AND METHODS

This study included 771 patients who presented to the Clinic of Dermatology and Venereal Diseases at Ankara Training and Research Hospital over a 6-month period. Each participant received a dermatologic diagnosis established by the attending dermatologist during the clinical examination. Across the sample, 70 distinct dermatologic conditions were identified and subsequently grouped into 17 diagnostic categories for statistical analysis (Table 1).

All participants completed a 10-item sociodemographic and clinical questionnaire in addition to the 14-item HAD Scale. The primary aim of the study was to evaluate and compare the frequency of anxiety and depression across diagnostic categories, genders, and age groups. The study protocol received approval from the Ankara Training and Research Hospital's Training, Planning, and Coordination Committee prior to data collection (Approval no: 0447, Date: 04/01/2012).

Table 1. Diagnosis groups of patients applying to the outpatient clinic

DIAGNOSIS GROUPS	DIAGNOSIS OF PATIENTS
1- Acne group diseases	Acne/ Acne vulgaris, hidradenitis suppurativa (HS), rosacea
2- Hair diseases	Alopecia areata (AA), androgenetic alopecia (AGA), non-scarring hair loss, telogen effluvium (TE)
3- Urticaria and other urticaria types	Angioedema, dermographism, urticaria
4- Eczema group diseases	Atopic dermatitis (AD), dermatitis, contact dermatitis, xerosis cutis, nummular dermatitis, pityriasis alba, seborrheic dermatitis (SD)
5- Melanocytic lesions and pigmentary disorders	Becker's nevus, freckles, halo nevus, hyperpigmentation, melasma, nevus, vitiligo
6- Behçet's disease	Behçet's disease (BD)
7- Chronic bullous dermatoses	Bullous pemphigoid, pemphigus vulgaris
8- Bacterial infections	Erysipelas, folliculitis, furuncle, impetigo, intertrigo, paronychia, pyoderma
9- Viral diseases	Genital warts, herpes virus infection, molluscum contagiosum, varicella, verruca/viral wart, herpes zoster
10- Superficial fungal infections	Candida stomatitis, onychomycosis, pityriasis versicolor, tinea corporis, tinea cruris, tinea pedis
11- Dermatoses resulting from physical factors	Erythema ab igne, callus, chilblains
12- Mucosal membrane diseases	Gingivitis, recurrent aphthous stomatitis (RAS), stomatitis
13- Diseases of skin appendages	Hyperhidrosis, hirsutism, onychogryphosis, onycholysis
14- Pruritus	Pruritus
15- Psoriasis	Psoriasis
16- Pityriasis rosea	Pityriasis rosea
17- Other	Epidermal cyst, habitual nail biting, hemangioma, non-toxic insect bite, keloid scar, lichen nitidus, lichen planus, pyogenic granuloma, syphilis, scabies, striae

HAD Scale

The HAD Scale, developed by Zigmond and Snaith in 1983, is a self-administered instrument designed to assess anxiety and depression in patients with organic medical conditions. The Turkish adaptation of the scale has demonstrated satisfactory reliability and validity, as reported by Aydemir et al. (4,5).

To minimize the confounding influence of somatic symptoms related to physical illnesses, the HAD Scale omits items that directly inquire about bodily complaints. The instrument consists of 14 items, with 7 items assessing anxiety and 7 items assessing depression. Items 1, 3, 5, 7, 9, 11, and 13 evaluate anxiety, while items 2, 4, 6, 8, 10, 12, and 14 measure depressive symptom severity.

All items are rated on a 4-point Likert-type scale ranging from 0 to 3. Subscale scores are calculated by summing item responses, yielding total scores ranging from 0 to 21 for both anxiety and depression. A score of ≥10 indicates clinically relevant anxiety, whereas a score of ≥7 indicates clinically relevant depression (4,5).

Data analysis was performed using SPSS software. Statistical significance was defined as $p<0.05$. The normality of data distribution was assessed prior to analysis, and associations between categorical variables were examined using the chi-square test. Descriptive statistics were summarized as frequencies (%) for categorical variables and as counts (n) for other variables.

RESULTS

A total of 771 patients were included in the study, consisting of 496 females (64.3%) and 275 males (35.7%), resulting in a

female-to-male ratio of 1.8:1. The mean age of the sample was 24.4±11.3 years.

Anxiety was detected in 21.7% of patients, while depression was identified in 38.7%. The frequency of anxiety was significantly higher among female patients compared with male patients (p=0.002). In contrast, no significant gender differences were found in depression frequency (p=0.081).

Both anxiety and depression were significantly less prevalent among employed individuals than among unemployed patients and students (p=0.00001). In addition, unmarried patients exhibited higher rates of anxiety and depression compared with married patients (p=0.00001).

Higher rates of anxiety and depression were observed among individuals with primary and high school education levels compared with other educational groups (p=0.005 to 0.00001). No significant differences in anxiety frequency were associated with income level (p=0.557), whereas depression was more common among patients earning either above or below the minimum wage compared with those in other income categories (p=0.001).

Patients with chronic comorbidities such as diabetes and hypertension demonstrated significant differences in the frequency of anxiety and depression (p=0.00001–0.008). However, the interpretation of these findings is limited by the substantially larger number of patients without chronic medical conditions.

Anxiety was significantly more common among patients with a history of hospitalization, and depression was present in 80% of these individuals (p=0.00001).

Additionally, both anxiety and depression were markedly more prevalent among the 5.2% of patients reporting a family history of psychiatric disorders in first-degree relatives (p=0.001).

Among patients with psoriasis, 40% exhibited anxiety, although this association did not reach statistical significance (p=0.054), suggesting potential clinical relevance. Depression, however, was significantly more prevalent in this group, affecting 65% of psoriasis patients (p=0.014).

In contrast, significant findings were observed among acne patients for both depression (33%; p=0.019) and anxiety (30.5%;p=0.050). No significant gender-based differences were identified in anxiety or depression within the acne subgroup (p=0.854).

Across the remaining dermatologic disease categories, the frequency of anxiety and depression did not reach statistical significance (p>0.05).

DISCUSSION

Psychological disorders are highly prevalent among dermatologic patients, with approximately 60% of hospitalized individuals receiving psychiatric therapy and 30% of those in outpatient follow-up experiencing similar concerns (6). Dermatologic diseases not only present cosmetic or physical challenges but also contribute to significant psychopathology, negatively affecting patients' psychosocial functioning and the well-being of their families.

In the present study, anxiety was identified in 55% of hospitalized patients and 20.8% of outpatients. Depression was also markedly common, affecting 80% of hospitalized individuals. These elevated rates among inpatients likely reflect the greater clinical severity of their dermatologic conditions, as well as the emotional and psychological burden associated with prolonged hospitalization and separation from familiar environments.

Previous research has shown that psychiatric symptoms are more frequently reported among female patients and among individuals who are divorced and managing dermatologic disorders (7). In our sample, the female-to-male ratio was 1.8:1. This predominance of female patients seeking dermatologic care may be attributed, at least in part, to heightened psychosocial impact and greater attention to cosmetic concerns among women compared with men.

Anxiety was identified in 74.5% of female patients and 25.7% of male patients in our study, indicating a significant gender difference in anxiety frequency.

The higher frequency of anxiety and depression among single patients may be associated with lower socioeconomic status, as many individuals in this group were unemployed. Additionally, anxiety and depression were more common among patients with primary or high school education who had not pursued higher education. This pattern may reflect the difficulties faced by individuals with lower educational attainment in securing stable or satisfactory employment.

Anxiety and depression were less prevalent among employed patients compared with non-working individuals and students. Non-working patients may experience greater psychological distress due to economic difficulties and increased time spent focusing on their illness. Students, conversely, may be more vulnerable to anxiety and depression as a result of academic pressure, the burden of managing their dermatologic condition, fear of social isolation, and financial dependence on their families.

Depression was more common among patients earning at or below the minimum wage compared with those in higher income brackets. Insufficient income may intensify psychological distress, contributing to elevated levels of anxiety and depression in this group.

Approximately 10.1% of the patients had co-existing chronic conditions such as diabetes or hypertension. This subgroup demonstrated a significantly higher frequency of anxiety and depression, likely due to the additional challenges of managing multiple health problems, which can impose further economic and emotional burdens on both patients and their families.

Anxiety and depression were also notably prevalent among the 5.2% of patients who reported a family history of psychiatric

disorders in first-degree relatives. This finding suggests a potential genetic predisposition and highlights the role of environmental factors in the early onset of anxiety and depression, which may progress to more severe psychiatric conditions over time.

Although most dermatologic disorders are not life-threatening, they can substantially impair patients' quality of life by contributing to psychological, social, and economic difficulties. Patients who experience social isolation may adapt over time, but others may struggle, resulting in anxiety, depression, or social phobia (8). Incorporating psychiatric support into dermatologic treatment plans may enhance patients' adherence to therapy and improve overall well-being. Addressing anxiety and stress—particularly among patients who are resistant to dermatologic treatment—is essential for optimizing therapeutic outcomes (9).

Acne patients frequently present with a range of psychiatric symptoms, including low self-esteem, social phobia, anxiety, depression, shame, and, in more severe cases, suicidal ideation and suicide attempts (10,11). Previous studies report variable frequency rates of anxiety and depression in acne populations; some have identified a positive correlation between anxiety severity and acne severity, whereas others have not demonstrated such an association (10).

In a study by Sunay et al. (11), alexithymia rates were comparable between acne patients and control subjects (23.4% vs. 24.4%), suggesting that introversion is not specific to acne vulgaris. In our study, 34.2% of patients (n=264) were classified in the acne group, which included individuals with acne vulgaris, hidradenitis suppurativa, or rosacea. Depression was identified in 33% of acne patients—a statistically significant finding ($p<0.05$)—and anxiety was also significantly prevalent in this group ($p<0.05$). These observations align with existing literature. No significant gender differences were observed within the acne group ($p>0.05$).

Behçet's disease, a condition known to cause substantial physiological impairment and serious health risks, is also associated with psychological symptoms that can reduce patients' quality of life (12). In our study, 1.9% of patients (n=15) were classified in the Behçet's disease group. However, the frequency of anxiety and depression did not reach statistical significance ($p>0.05$). This outcome may be attributable to several factors, including the small sample size within this subgroup, the outpatient status of the patients, and the relatively mild severity of mucocutaneous manifestations observed.

Psoriasis patients frequently experience elevated levels of anxiety, often exceeding the frequency of depression within this group. Anxiety in psoriasis is commonly associated with concerns about discussing the condition, particularly fears related to social stigma, interpersonal difficulties, discrimination, negative judgment, and social withdrawal (13). Previous studies have demonstrated that these psychosocial challenges are more pronounced among individuals with psoriasis than among patients with other chronic illnesses, including cancer (13).

Adaptation to chronic pruritic conditions such as psoriasis may also be impaired by comorbid depression, which negatively affects coping strategies and psychosocial functioning (14). Stress has further been identified as a contributing factor that exacerbates pruritus severity in psoriasis patients (13).

In our study, 2.6% of patients (n=29) were classified in the psoriasis group. Anxiety was observed in 40% of these patients, a result that approached statistical significance ($p=0.054$), suggesting potential clinical relevance despite not achieving formal statistical significance. Depression was markedly prevalent, affecting 65% of psoriasis patients ($p=0.014$), consistent with prior studies reporting depression rates of 10% to 58% in this population (15). These findings highlight the substantial impact of psychological factors on the quality of life and treatment outcomes of patients with psoriasis.

CONCLUSION

This study highlights the importance of addressing anxiety and depression as essential components of dermatologic patient care in order to improve overall quality of life. Findings from this large outpatient cohort demonstrate significant associations between psychological well-being and factors such as dermatosis type, co-existing chronic diseases, gender, educational level, marital status, and socioeconomic status.

Dermatologic conditions often present with visible symptoms that contribute to social withdrawal, heightened self-consciousness, and sensitivity to perceived stigma. These psychological challenges are particularly prominent in patients with psychocutaneous disorders. Consequently, a therapeutic approach characterized by sensitivity, empathy, and patience is vital for achieving favorable clinical outcomes in this population.

Integrating routine psychological assessment and appropriate psychosocial support into dermatologic practice can help clinicians more effectively address patients' holistic needs. Such an approach enhances treatment adherence, strengthens psychological resilience, and improves overall well-being. Ultimately, incorporating mental health support alongside dermatologic management not only optimizes clinical outcomes but also fosters a more comprehensive and patient-centered model of care.

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Conflict of Interests
The authors declare that there is no conflict of interest in the study.

Financial Disclosure
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Ethical Approval
The study protocol received approval from the Ankara Training and Research Hospital's Training, Planning, and Coordination Committee prior to data collection (Approval no: 0447, Date: 04/01/2012).

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