International Journal of Research in Dermatology
Al-Refu K. Int J Res Dermatol. 2026 May;12(3):197-204
http://www.ijord.com

DOI: https://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20261095

Original Research Article

Anxiety and depression in patients with chronic dermatologic diseases in Jordan: a cross-sectional study

Khitam Al-Refu*

Department of Internal Medicine, Faculty of Medicine, Mutah University, Karak, Jordan

Received: 03 September 2025
Revised: 05 March 2026
Accepted: 04 April 2026

***Correspondence:**
Dr. Khitam Al-Refu,
E-mail: alrefukhi@yahoo.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Skin diseases can deeply affect patients' mental health and social well-being, often more than what clinical assessments suggest. In the Middle East, data on the psychological burden of these conditions remain limited. This study aimed to evaluate anxiety and depression levels among Jordanian patients with common dermatologic conditions and explore their relationship with disease severity.
Methods: A total of 100 patients diagnosed with psoriasis, atopic dermatitis, acne vulgaris, rosacea, and alopecia areata were recruited, with 20 patients representing each condition. Disease severity was assessed using standardized scoring tools, including psoriasis area and severity index (PASI), scoring atopic dermatitis (SCORAD), global acne grading system (GAGS), clinician erythema assessment (CEA), and severity of alopecia tool (SALT). Psychological status was evaluated using the hospital anxiety and depression scale (HADS).
Results: Psychological symptoms were prevalent across all dermatologic conditions. Patients with mild acne and rosacea demonstrated the highest anxiety scores, while those with severe alopecia areata experienced the highest levels of depression. No direct correlation was observed between disease severity and psychological distress.
Conclusions: Chronic dermatologic conditions may be associated with significant psychological distress regardless of their clinical severity. These findings highlight the importance of incorporating mental health assessment into routine dermatologic care.

Keywords: Skin disease, Anxiety, Depression, Quality of life, Jordan, Psychodermatology

INTRODUCTION

Psychodermatology is an evolving subspecialty that explores the complex relationship between skin and the mind. As the most visible organ, the skin often reflects emotional and psychological states, making dermatologic diseases a frequent source of psychological distress.[1] Although many skin conditions may appear clinically localized or benign, their impact on patients' self-image, social interactions, and quality of life can be significant.[2]

Previous research has demonstrated a strong association between dermatologic diseases and psychiatric comorbidities, particularly anxiety and depression. Psoriasis, for example, is a chronic inflammatory skin disease known to significantly impair psychological well-being, while atopic dermatitis is closely linked to emotional stress and impaired skin barrier function.[5]

Similarly, acne vulgaris and rosacea, which often affect visible areas such as the face, are associated with considerable psychosocial burden regardless of disease severity.[6] Alopecia areata has also been linked to increased anxiety and depression due to its sudden onset and unpredictable course.[7]

Despite growing global recognition of the psychological dimensions of dermatologic diseases, regional research in

Middle Eastern populations remains limited. Therefore, this study aimed to evaluate anxiety and depression among Jordanian patients with five common dermatologic conditions-psoriasis, atopic dermatitis, acne vulgaris, rosacea, and alopecia areata-and to examine their relationship with disease severity.

METHODS

Study design and participants

This cross-sectional analytical study was conducted at the dermatology outpatient clinic of the University Health Center, Mutah University, Al-Karak, Jordan, between April 2025 and October 2025. The study included adult patients (≥18 years) diagnosed with one of five chronic dermatological conditions: psoriasis, atopic dermatitis, acne vulgaris, rosacea, or alopecia areata.

Patients were eligible if they had a confirmed diagnosis of one of the selected dermatological conditions for at least six months. Patients with previously diagnosed psychiatric disorders, cognitive impairment, or those receiving psychiatric medications were excluded to minimize potential confounding factors affecting psychological assessment. A total of 100 patients were recruited using convenience sampling. To ensure balanced representation of the selected dermatological conditions, 20 patients were included for each disease category. This distribution allowed comparative analysis between the different dermatological conditions.

Psychological assessment

Psychological distress was assessed using the HADS, a widely validated instrument commonly used in non-psychiatric clinical settings. The HADS consists of 14 self-reported items divided into two subscales measuring anxiety (HADS-A) and depression (HADS-D). Each item is scored on a four-point Likert scale ranging from 0 to 3, with subscale scores ranging from 0 to 21. Scores between 8 and 10 indicate borderline abnormal levels, while scores of 11 or higher indicate clinically significant anxiety or depression.

Assessment of dermatologic disease severity

Disease severity was evaluated using validated disease-specific clinical scoring systems according to the dermatological diagnosis. The PASI was used for psoriasis, the SCORAD index for atopic dermatitis, the GAGS for acne vulgaris, the CEA scale for rosacea, and the SALT for alopecia areata.[9-12]

Data collection procedure

Eligible patients were approached during their dermatology clinic visits. After obtaining written informed consent, participants completed the HADS questionnaire in a private setting. The clinical severity of each dermatological condition was assessed using the appropriate disease-specific scoring tool.

Statistical analysis

Data were analyzed using SPSS software (version 23). Descriptive statistics were used to summarize demographic and clinical characteristics, including means, standard deviations, and frequencies. The relationship between psychological scores and disease severity was assessed using Pearson or Spearman correlation tests depending on data distribution. Multiple linear regression analysis was performed to identify independent predictors of disease severity while controlling for potential confounding variables, including age, gender, and disease duration. A p value of less than 0.05 was considered statistically significant.

Ethical considerations

The study was conducted in accordance with the principles of the Declaration of Helsinki and was approved by the Institutional Review Board of Mutah University. Written informed consent was obtained from all participants prior to enrollment. Participation was voluntary, and all collected data were anonymized to ensure participant confidentiality.

RESULTS

A total of 100 patients with chronic dermatological conditions were included in the study, with equal distribution across five disease groups: psoriasis (n=20), atopic dermatitis (n=20), acne vulgaris (n=20), rosacea (n=20), and alopecia areata (n=20). Among the participants, 41% were male and 59% were female. The majority of patients aged 18-30 years (49%), followed by 31-45 years (27%) and over 45 years (24%) (Table 1).

All participants completed the HADS, and disease severity was assessed using validated clinical scoring systems specific to each condition: PASI for psoriasis, SCORAD for atopic dermatitis, GAGS for acne vulgaris, CEA for rosacea, and SALT for alopecia areata.

Psoriasis

Among the psoriasis group (n=20), two patients were classified as having mild disease (PASI <7) and eighteen patients had severe disease (PASI≥12). The mean PASI score was 0.9 in the mild group and 39.1 in severe group. Mean anxiety (HADS-A) scores were 14.5 in mild group and 13.9 in severe group, while mean depression (HADS-D) scores were 7.5 and 9.1 respectively (Table 2).

Atopic dermatitis

In the atopic dermatitis group (n=20), five patients had mild disease, four had moderate disease, and eleven had severe disease based on SCORAD scores. The mean

anxiety scores ranged from 9.5 to 10.2 across severity groups, while mean depression scores ranged from 7.5 to 10.4 (Table 3).

Acne vulgaris

Patients with acne vulgaris (n=20) were classified as mild (n=12), moderate (n=3), severe (n=2), and very severe (n=3) according to GAGS scores. The mean anxiety and depression scores in the mild group were both 10.2. In the severe group, anxiety scores were lower (4.5) while depression scores were higher (15.5) (Table 4).

Rosacea

Among patients with rosacea (n=20), disease severity according to CEA was distributed as follows: clear (n=4), almost clear (n=5), mild (n=5), moderate (n=3), and severe (n=3). The highest anxiety and depression scores were observed in the mild group (HADS-A=14.6, HADS-D=13.0) (Table 5).

Alopecia areata

In the alopecia areata group (n=20), disease severity according to SALT was classified as mild (n=5), moderate (n=2), severe (n=5), and very severe (n=8). Patients with very severe disease showed the highest depression scores (HADS-D = 14.0), while anxiety scores remained elevated across most severity categories (Table 6).

Overall psychological findings

Across all conditions, clinically significant anxiety (HADS-A ≥11) was observed in 52% of patients, while 49% demonstrated clinically significant depressive symptoms (HADS-D≥11).

The highest mean anxiety and depression scores were recorded in patients with atopic dermatitis, followed by psoriasis, while patients with rosacea showed the lowest mean scores.

Table 1: Demographic characteristics of the study participants (n=100).

Variables	N	Percentage (%)
Gender		
Male	41	41
Female	59	59
Age group (in years)		
18-30	49	49
31-45	27	27
>45	24	24
Dermatological condition		
Psoriasis	20	20
Atopic dermatitis	20	20
Acne vulgaris	20	20
Rosacea	20	20
Alopecia areata	20	20

Table 2: Psoriasis-psychological impact summary.

Severity level	N	Mean PASI score	Mean HADS-anxiety	Mean HADS-depression	Interpretation
Mild	2	0.9	14.5	7.5	High anxiety despite low PASI; psychological burden not proportional to clinical severity.
Severe	18	39.1	13.9	9.1	High anxiety and depression, but the increase is not linear with severity.

Table 3: Atopic dermatitis-psychological impact summary.

Severity level	N	Mean SCORAD score	Mean HADS-anxiety	Mean HADS-depression	Interpretation
Mild	5	9.5	9.6	10.4	Highest depression despite mild SCORAD; pruritus or lesion visibility may explain impact.
Moderate	4	39.0	10.2	8.5	Slightly elevated anxiety; moderate depression; distress linked to flare unpredictability.

Continued.

Severity level	N	Mean SCORAD score	Mean HADS-anxiety	Mean HADS-depression	Interpretation
Severe	11	73.3	9.5	7.5	Lower depression than expected; disease burden may be more physical than emotional.

Table 4: Acne vulgaris-psychological impact summary.

Severity level	N	Mean GAGS score	Mean HADS-anxiety	Mean HADS-depression	Interpretation
Mild	12	11.2	10.2	10.2	Notable anxiety and depression despite low severity; cosmetic visibility plays a key role.
Moderate	3	25.8	11.3	10.3	Emotional burden increases, possibly due to treatment resistance and persistence of lesions.
Severe	2	35.8	4.5	15.5	Depression markedly high; possible shift from anxiety to emotional exhaustion.
Very severe	3	29.7	10.0	8.0	Anxiety remains high; perception and lesion location may drive psychological impact.

Table 5: Rosacea-psychological impact summary.

Severity level	N	Mean CEA score	Mean HADS-anxiety	Mean HADS-depression	Interpretation
Clear	4	0.0	6.2	10.2	Moderate distress despite clear skin; possibly due to fear of recurrence or self-image.
Almost clear	5	1.0	9.8	10.2	Residual emotional burden may persist due to past flare-ups or social anxiety.
Mild	5	2.0	14.6	13.0	Highest anxiety and depression; facial redness may drive social and emotional discomfort.
Moderate	3	3.0	8.3	12.7	Significant depression levels, possibly linked to disease chronicity and facial involvement.
Severe	3	4.0	8.3	9.3	Surprisingly lower distress may indicate psychological adaptation in advanced cases.

Table 6: Alopecia areata-psychological impact summary.

SALT category	N	Mean SALT score	HADS-A (Anxiety)	HADS-D (Depression)
Mild	5	14.5	11	11.4
Moderate	2	-	10	5.5
Severe	5	63.1	9.4	10.8
Very severe	8	86.3	11.6	14

DISCUSSION

Chronic dermatological diseases are among the most prevalent non-communicable conditions worldwide and contribute substantially to morbidity and reduced quality of life across diverse populations.[13] This burden is also evident in Jordan and the broader Middle East, where the dermatologic disorders are frequently encountered across all age groups.[14] Beyond their physical manifestations, chronic skin diseases often impose a significant psychological burden. A large multicenter European study demonstrated that patients with dermatologic conditions experience higher levels of depression, anxiety, and suicidal ideation compared with the general population.[15] Despite the high prevalence of skin diseases in the region, relatively few studies in Jordan have explored their

psychological dimension. Previous research conducted in the country, including studies on vitiligo in children, demonstrated that even clinically mild dermatologic conditions may lead to substantial emotional distress, particularly when lesions are visible and socially stigmatized.[16]

The present study was conducted within the growing field of psychodermatology, which recognizes the close relationship between dermatologic diseases and mental health.[17] The inclusion of psoriasis, atopic dermatitis, acne vulgaris, rosacea, and alopecia areata was based on their chronic course and visible manifestations, which frequently contribute to psychosocial distress. Previous international studies have consistently reported strong associations between these dermatologic conditions and psychiatric comorbidities such as anxiety and depression.[18,19] Even conditions often perceived as mild, including acne and rosacea, can significantly affect self-esteem, social functioning, and quality of life.[20,21] Similarly, alopecia areata has been linked to considerable emotional distress due to its unpredictable course and visible hair loss.[22]

In the present study, psychological distress was observed across all dermatologic conditions examined. Importantly, the emotional burden was not consistently proportional to clinical disease severity. In psoriasis, patients with mild disease reported anxiety levels comparable to those observed in severe cases. This finding supports previous research suggesting that the psychological impact of psoriasis is influenced more strongly by factors such as lesion visibility, disease chronicity, and perceived stigma than by objective clinical severity alone.[23,24] Visible lesions on exposed areas may lead to embarrassment, fear of social rejection, and reduced social participation.[25] Furthermore, the unpredictable nature of psoriasis flares may contribute to persistent stress and emotional hypervigilance, while long disease duration and variable treatment responses may increase frustration and depressive symptoms.[26,27] Cultural perceptions and social stigma surrounding skin diseases may further amplify psychological distress, particularly in conservative societies.[25] These observations support clinical recommendations advocating routine psychological screening in psoriasis patients using tools such as HADS, DLQI, or PHQ-9.[28,29]

A similar pattern was observed in atopic dermatitis.[30-36] In the current study, patients with mild disease demonstrated unexpectedly high depression scores, while the relationship between SCORAD severity and psychological measures was modest. Previous studies have also reported that psychological distress in atopic dermatitis is influenced not only by disease severity but also by symptoms such as pruritus, sleep disturbance, and lesion visibility.[30,31] Persistent itching and sleep disruption can significantly affect daily functioning and emotional well-being.[32] Additionally, patients with mild disease may feel that their symptoms are underestimated during clinical consultations, which may further increase emotional distress.[33] Conversely, patients with severe disease may develop coping mechanisms or psychological adaptation over time.[34]

Acne vulgaris also demonstrated a considerable psychological impact in this study. Although often regarded as a cosmetic or self-limited condition, acne can significantly affect emotional well-being, particularly among adolescents and young adults. Patients with mild acne in this cohort showed elevated anxiety and depression scores, consistent with previous research suggesting that psychosocial impact of acne is influenced more strongly by facial visibility and body image concerns than by clinical severity alone.[37-39] Adolescence represents developmental period characterized by heightened social comparison and sensitivity to physical appearance, which may increase vulnerability to emotional distress related to acne.[40] Cultural and media influences emphasizing clear skin as a marker of attractiveness may further intensify psychological pressure.[40] In some cases, severe acne was associated with lower anxiety but higher depression scores, possibly reflecting transition from acute emotional distress to chronic psychological fatigue/ resignation.[41] Similar patterns have been described in previous studies examining psychosocial burden of acne.[42]

Rosacea also demonstrated a complex relationship between clinical severity and psychological burden. Patients with mild rosacea reported the highest levels of anxiety and depression, indicating that psychological impact may be influenced more strongly by perceived cosmetic appearance and social stigma than by objective erythema severity.[43,44] Because rosacea primarily affects the central face, even mild redness can significantly influence self-image and social confidence. Cultural misconceptions that associate facial redness with alcohol consumption or poor hygiene may further increase embarrassment and social withdrawal in some societies.[45] Previous studies suggest that patients with long-standing rosacea may develop coping mechanisms or emotional adaptation over time, which could explain lower anxiety scores in some individuals with more severe disease.[46] Nevertheless, some patients with clinically minimal or controlled disease continued to report psychological distress, possibly reflecting fear of recurrence or persistent body image concerns.[47,48]

Alopecia areata demonstrated one of the most pronounced psychological impacts among the conditions examined. Although it does not cause physical pain or systemic illness, visible hair loss may significantly affect self-image and social identity. In the present study, both mild and very severe cases were associated with elevated psychological distress. Previous research has highlighted the strong cultural and emotional significance of hair, particularly among women, which may explain the profound emotional response to hair loss.[49-51] Early stages of the disease may provoke anxiety related to uncertainty

about progression, whereas advanced disease may lead to emotional exhaustion and depressive symptoms.[52] Several studies have also reported increased rates of anxiety, depression, and adjustment disorders among patients with alopecia areata, particularly when hair loss affects highly visible areas.[52,53]

Overall, the findings of this study demonstrate that psychological distress occurs across a wide range of dermatologic conditions and may be present even in patients with clinically mild disease. These results highlight an important discrepancy between objective clinical severity and the subjective emotional experience of patients. While clinical scoring systems such as PASI, SCORAD, and GAGS are valuable tools for assessing physical disease severity, they do not capture the full psychosocial burden experienced by patients.

In Jordan, psychological screening is rarely integrated into routine dermatologic practice, which may contribute to the under recognition of anxiety and depressive symptoms among dermatology patients. Integrating validated psychometric tools and encouraging collaboration between dermatologists and mental health professionals may improve both clinical outcomes and overall patient well-being.

Several limitations of the present study should be acknowledged. The relatively small sample size and recruitment from a single clinical center may limit the generalizability of the findings. In addition, psychological assessment relied solely on the HADS questionnaire without additional quality-of-life instruments such as DLQI. Finally, the cross-sectional design does not allow causal relationships between dermatologic severity and psychological distress to be established.

CONCLUSION

This study highlights substantial psychological burden associated with common chronic dermatological conditions among patients in Jordan. Anxiety and depressive symptoms were observed across all investigated diseases, often occurring even in patients with clinically mild disease. These findings suggest that the psychological impact of dermatological disorders does not necessarily correspond with objective disease severity and may instead be influenced by factors such as lesion visibility, chronicity, and social perception. Results emphasize importance of integrating psychological assessment into routine dermatological practice and adopting a holistic approach to patient care that addresses both physical and emotional dimensions of skin disease.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Gupta MA, Gupta AK. Psychiatric and psychological co-morbidity in patients with dermatologic disorders: epidemiology and management. Am J Clin Dermatol. 2003;4(12):833-42.
2. Dalgard F, Gieler U, Holm JØ, Bjertness E, Hauser S. Self-esteem and body satisfaction among late adolescents with acne: results from a population survey. J Am Acad Dermatol. 2008;59(5):746-51.
3. Arck PC, Slominski A, Theoharides TC, Peters EM, Paus R. Neuroimmunology of stress: skin takes center stage. J Invest Dermatol. 2006;126(8):1697-704.
4. Lönndahl L, Abdelhadi S, Holst M, Lonne-Rahm SB, Nordlind K, Johansson B. Psychological Stress and Atopic Dermatitis: A Focus Group Study. Ann Dermatol. 2023;35(5):342-7.
5. Slominski A, Wortsman J. Neuroendocrinology of the skin. Endocr Rev. 2000;21(5):457-87.
6. Misery L, Finlay AY, Martin N, Boussetta S, Nguyen C, Myon E, et al. Atopic dermatitis: impact on the quality of life of patients and their partners. Dermatology. 2007;215(2):123-9.
7. Picardi A, Abeni D, Melchi CF, Puddu P, Pasquini P. Psychiatric morbidity in dermatological outpatients: an issue to be recognized. Br J Dermatol. 2000;143(5):983-91.
8. Fredriksson T, Pettersson U. Severe psoriasis--oral therapy with a new retinoid. Dermatologica. 1978;157(4):238-44.
9. Severity scoring of atopic dermatitis: the SCORAD index. Consensus Report of the European Task Force on Atopic Dermatitis. Dermatology. 1993;186(1):23-31.
10. Doshi A, Zaheer A, Stiller MJ. A comparison of current acne grading systems and proposal of a novel system. Int J Dermatol. 1997;36(6):416-8.
11. Stein L, Kircik L, Fowler J, Tan J, Draelos Z, Fleischer A, et al. Efficacy and safety of ivermectin 1% cream in treatment of papulopustular rosacea: results of two randomized, double-blind, vehicle-controlled pivotal studies. J Drugs Dermatol. 2014;13(3):316-23.
12. Olsen EA, Hordinsky MK, Price VH, Roberts JL, Shapiro J, Canfield D, et al. Alopecia areata investigational assessment guidelines--Part II. National Alopecia Areata Foundation. J Am Acad Dermatol. 2004;51(3):440-7.
13. Hay RJ, Johns NE, Williams HC, Bolliger IW, Dellavalle RP, Margolis DJ, et al. The global burden of skin disease in 2010: an analysis of the prevalence and impact of skin conditions. J Invest Dermatol. 2014;134(6):1527-34.
14. Almaaita TJ, Abdallat SA. Prevalence of skin diseases in Jordanian children. Rawal Med J. 2012;37(4):374-6.
15. Dalgard FJ, Gieler U, Tomas-Aragones L, Lien L, Poot F, Jemec GBE, et al. The psychological burden of skin diseases: a cross-sectional multicenter study

among dermatological out-patients in 13 European countries. J Invest Dermatol. 2015;135(4):984-91.
16. Al-Refu K. Vitiligo in children: a clinical-epidemiologic study in Jordan. Pediatr Dermatol. 2012;29(1):114-5.
17. Jafferany M. Psychodermatology: a guide to understanding common psychocutaneous disorders. Prim Care Companion J Clin Psychiatry. 2007;9(3):203-13.
18. Kimball AB, Jacobson C, Weiss S, Vreeland MG, Wu Y. The psychosocial burden of psoriasis. Am J Clin Dermatol. 2005;6(6):383-92.
19. Drucker AM, Wang AR, Li WQ, Sevetson E, Block JK, Qureshi AA. The Burden of Atopic Dermatitis: Summary of a Report for the National Eczema Association. J Invest Dermatol. 2017;137(1):26-30.
20. Dreno B, Poli F. Epidemiology of acne. Dermatology. 2003;206(1):7-10.
21. Powell FC. Clinical practice. Rosacea. N Engl J Med. 2005;352(8):793-803.
22. Al-Mutairi N, Eldin ON. Clinical profile and impact on quality of life: Seven years experience with patients of alopecia areata. Indian J Dermatol Venereol Leprol. 2011;77:489-93.
23. Fleming P, Bai JW, Pratt M, Sibbald C, Lynde C, Gulliver WP. The prevalence of anxiety in patients with psoriasis: a systematic review of observational studies and clinical trials. J Eur Acad Dermatol Venereol. 2017;31(5):798-807.
24. Kurd SK, Troxel AB, Crits-Christoph P, Gelfand JM. The risk of depression, anxiety, and suicidality in patients with psoriasis: a population-based cohort study. Arch Dermatol. 2010;146(8):891-5.
25. Sampogna F, Tabolli S, Abeni D; IDI Multipurpose Psoriasis Research on Vital Experiences (IMPROVE) investigators. Living with psoriasis: prevalence of shame, anger, worry, and problems in daily activities and social life. Acta Derm Venereol. 2012;92(3):299-303.
26. Richards HL, Fortune DG, Griffiths CE, Main CJ. The contribution of perceptions of stigmatisation to disability in patients with psoriasis. J Psychosom Res. 2001;50(1):11-5.
27. Rieder E, Tausk F. Psoriasis, a model of dermatologic psychosomatic disease: psychiatric implications and treatments. Int J Dermatol. 2012;51(1):12-26.
28. Elmets CA, Leonardi CL, Davis DMR, Gelfand JM, Lichten J, Mehta NN, et al. Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with awareness and attention to comorbidities. J Am Acad Dermatol. 2019;80(4):1073-113.
29. Rapp SR, Feldman SR, Exum ML, Fleischer AB Jr, Reboussin DM. Psoriasis causes as much disability as other major medical diseases. J Am Acad Dermatol. 1999;41(3 Pt 1):401-7.
30. Silverberg JI. Public Health Burden and Epidemiology of Atopic Dermatitis. Dermatol Clin. 2017;35(3):283-9.
31. Misery L, Seneschal J, Corgibet F, Halioua B, Marquié A, Merhand S, et al. Impact of Atopic Dermatitis on Patients and their Partners. Acta Derm Venereol. 2023;103:adv5285.
32. Chamlin SL, Chren MM. Quality-of-life outcomes and measurement in childhood atopic dermatitis. Immunol Allergy Clin North Am. 2010;30(3):281-8.
33. Lewis-Jones S. Quality of life and childhood atopic dermatitis: the misery of living with childhood eczema. Int J Clin Pract. 2006;60(8):984-92.
34. Marron SE, Cebrian-Rodriguez J, Alcalde-Herrero VM, Garcia-Latasa de Aranibar FJ, Tomas-Aragones L. Psychosocial Impact of Atopic Dermatitis in Adults: A Qualitative Study. Actas Dermosifiliogr (Engl Ed). 2020;111(6):513-7.
35. Eichenfield LF, Tom WL, Berger TG, Krol A, Paller AS, Schwarzenberger K, et al. Guidelines of care for the management of atopic dermatitis: section 2. Management and treatment of atopic dermatitis with topical therapies. J Am Acad Dermatol. 2014;71(1):116-32.
36. WHO. Global report on atopic dermatitis: burden, care, and future outlook. World Health Organization. 2022. Available at: https://www.who.int/publications/i/item/9789241565653. Accessed on 22 February 2025.
37. Tan JK, Bhate K. A global perspective on the epidemiology of acne. Br J Dermatol. 2015;172(1):3-12.
38. Tasoula E, Gregoriou S, Chalikias J, Lazarou D, Danopoulou I, Katsambas A, et al. The impact of acne vulgaris on quality of life and psychic health in young adolescents in Greece. Results of a population survey. An Bras Dermatol. 2012;87(6):862-9.
39. Krowchuk DP. Managing acne in adolescents. Pediatr Clin North Am. 2000;47(4):841-57.
40. Thomas DR. Psychosocial effects of acne. J Cutan Med Surg. 2004;8(4):3-5.
41. Rohan J. Acne vulgaris: psychosocial impact in adolescents. Med Sci Ukr. 2021;17:4.
42. Layton A, Eady EA, Peat M, Whitehouse H, Levell N, Ridd M, et al. Identifying acne treatment uncertainties via a James Lind Alliance Priority Setting Partnership. BMJ Open. 2015;5(7):e008085.
43. Two AM, Wu W, Gallo RL, Hata TR. Rosacea: part I. Introduction, categorization, histology, pathogenesis, and risk factors. J Am Acad Dermatol. 2015;72(5):749-58.
44. Elewski BE, Draelos Z, Dreno B, Picardo M. Rosacea-global diversity and optimized outcome: proposed international consensus from the Rosacea International Expert Group. J Eur Acad Dermatol Venereol. 2011;25(2):188-200.
45. Huynh TT. Burden of Disease: The Psychosocial Impact of Rosacea on a Patient's Quality of Life. Am Health Drug Benefits. 2013;6(6):348-54.
46. Bewley A, Fowler J, Schöfer H, Kerrouche N, Rives V. Erythema of Rosacea Impairs Health-Related Quality of Life: Results of a Meta-analysis. Dermatol Ther (Heidelb). 2016;6(2):237-47.

47. van Zuuren EJ. Rosacea. N Engl J Med. 2017;377(18):1754-64.
48. Gallo RL, Granstein RD, Kang S, Mannis M, Steinhoff M, Tan J, et al. Standard classification and pathophysiology of rosacea: The 2017 update by the National Rosacea Society Expert Committee. J Am Acad Dermatol. 2018;78(1):148-55.
49. Abedini R, Hallaji Z, Lajevardi V, Nasimi M, Karimi Khaledi M, Tohidinik HR. Quality of life in mild and severe alopecia areata patients. Int J Womens Dermatol. 2017;4(2):91-4.
50. Sharma A, Kumari S, Sharma AK, Ankita, Mishra R, Sharma B. Insight into alopecia: a narrative review of prevalence, pathogenesis and psychological consequences. Pharm Sci Anal Res J. 2025;7:3.
51. Muntyanu A, Gabrielli S, Donovan J, Gooderham M, Guenther L, Hanna S, et al. The burden of alopecia areata: A scoping review focusing on quality of life, mental health and work productivity. J Eur Acad Dermatol Venereol. 2023.
52. Huang KP, Mullangi S, Guo Y, Qureshi AA. Autoimmune, psychiatric, and medical comorbidities associated with alopecia areata in the United States. JAMA Dermatol. 2013;149(7):789-94.
53. Williamson D, Gonzalez M, Finlay AY. The effect of hair loss on quality of life. J Eur Acad Dermatol Venereol. 2001;15(2):137-9.

Cite this article as: Al-Refu K. Anxiety and depression in patients with chronic dermatologic diseases in Jordan: a cross-sectional study. Int J Res Dermatol 2026;12:197-204.