

The Psychological Impact of Skin Conditions: Understanding the Dermatology-Psychology Connection

Dr. Thaeir Awad Hassan Al-Khaykane¹, and Dr. Sunbl Fadhil Mohammed Hussein²

¹M.B.Ch.B., F.I.B.M.S. \ (Dermatology and Venereology), Iraqi Ministry of Health, Department of Health Babylon, Al-Hashimiyah General Hospital, Babylon, Iraq

²M.B.Ch.B., F.I.B.C.D.V. \ (Dermatology and Venereology), Iraqi Ministry of Health, Kirkuk Health Department, Azadi Educational Hospital, Kirkuk, Iraq

Abstract: Background: Patients' self-awareness grows under the influence of dermatological disorders in their early stages of development, and this can alter both self-perception and behaviour toward others. Objective: This study aimed to analysis dermatology's impact on the psychological status of patients. Patients and methods: Clinical data was collected on 65 patients suffering from skin diseases from different hospitals in Iraq, whose ages were between 15 and 40 years. We recorded the measurements carried out on patients to determine the degree of prevalence of skin diseases in patients and the extent of their impact on the quality of life and psychological state of patients. Results: The study included patients over the age of 35 to 40, with 30 cases in total. There were more male patients than female patients, with 48 cases and 17 cases, respectively. The prevalence of comorbidities was 30.77%, with the most common diseases being hypertension (23.08%) and diabetes (15.38%). The smoking status of the patients was also recorded, with 40% of them being smokers. Furthermore, the findings revealed that the most prevalent symptoms among the patients were inflammation (76.92%), itching or irritation (61.54%), and fluid-filled blisters (50.77%). Additionally, the severity levels of the skin disorders were classified as mild (12 cases), moderate (23 cases), and severe (30 cases). In terms of the post-intervention phase assessment, the self-esteem of patients was evaluated. The results indicated that eight patients (12.31%) strongly disagreed, ten patients (15.38%) disagreed, 20 patients (30.77%) agreed, and 27 patients (41.54%) strongly agreed. Additionally, social support was evaluated, with 6 cases classified as mild, 20 cases classified as moderate, and 39 cases classified as severe. Furthermore, the impact of skin disorders on quality of life was assessed, with the most significant impact observed in the domains of symptoms and feelings (24.32 ± 4.80) and work and school (26.65 ± 2.49). Conclusions: The study has demonstrated that acne, psoriasis, and eczema have a negative impact on the self-esteem and perceived social support of dermatological patients, particularly those with visible localisation. This can result in complex mental effects and require comprehensive treatment strategies, especially for those with visible skin disorders.

Keywords: Dermatology; Psychological function; overall ISEL-40 scale; Symptoms; and Quality of life effect.

INTRODUCTION

With the exception of melanoma, dermatological disorders are in the top ten most common diseases worldwide, and regarded as a whole; dermatologic diseases make of the fourth-highest burden of nonfatal diseases globally [Hollestein, L. M. *et al.*, 2014]. Despite knowing that most skin diseases are chronic and seldom life-threatening, they place a significant strain on healthcare systems all over the world [Hollestein, L. M. *et al.*, 2014; Hay, R. J. *et al.*, 2014]. Dermatologic diseases of the skin may only cause a major worldwide impact on expenses and loss of functional health, but they also have a considerable psychological toll on individual individuals [Hollestein, L. M. *et al.*, 2014; Ahmed, A. *et al.*, 2013]. According to the 2010 Worldwide Cost of Disease survey [Hay, R. J. *et al.*, 2014], one of the main factors that led to years spent disabled at the national level had been skin diseases.

There isn't a good objective indicator of disease activity for the vast majority of skin diseases. As a result, a plethora of clinician-reported outcome measures have been established, involving different disease characteristics that are combined in different ways to get an overall score

[Townshend, A. *et al.*, 2008]. Because a clinician or observer collects the data instead of the participant, these scales might seem objective initially, but many have not received any validation at all, and only a small number have undergone adequate verification [Townshend, A. *et al.*, 2008].

In dermatology, patient evaluations in the efficacy for treatments are very significant. It may be challenging for doctors to evaluate certain dermatologic signs of illness, such as itching, burning, and disturbed sleep, objectively. Moreover, only research participants are able to assess specific aspects of the value ascribed for various levels of clinical improvement [Townshend, A. *et al.*, 2008]. Nevertheless, a thorough examination of the literature on randomized controlled clinical trials relevant to dermatology showed that, out of 125 studies carried out between 1994 and 2001, only 25.6% addressed patient-reported outcomes (PROs) in any capacity [Townshend, A. *et al.*, 2008]. (Note that this analysis was finished prior to the 2009 release of US FDA advice in the employing of

PROs to support possible claims for product labeling [FDA, 2009].

The Psoriasis Symptoms Diary is just one among the PRO measures which are being utilized more lately in dermatological medication research. In two secukinumab clinical studies, this measure was used to assess patient-reported improvements in psoriasis signs and symptoms. Crucially, in addition to other previously recognized symptoms, qualitative interviews with psoriasis patients during the creation for the Psoriasis Symptom Diary showed that pain due to plaque is a major symptom of the disease [Lebwohl, M. *et al.*, 2014]. Then, in the USA and Europe, secukinumab was shown to result in clinically significant improvements for patient-reported itching, pain, as well as scaling when compared to placebo by the Psoriasis Symptoms Diary, the first psoriatic-related PRO measurement to include pain [Secukinumab US prescribing information, 2016-Strober, B. *et al.*, 2016].

The phrase "patient-reported outcome" describes results which are obtained straight from the patient and are not subjected to interpretation by medical professionals or other parties [FDA, 2009; Acquadro, C. *et al.*, 2003; Doward, L. C. *et al.*, 2004]. Standardized questionnaires intended to assess an explicit notion (construct), such as symptoms, restrictions to one's behaviors, or health status/health-related quality of life (HRQOL), are frequently used to gather PRO data. PRO measures are the collective term of the surveys used to gather PROs; they can also be described to as measurement equipment, scales, diaries, and checklists [FDA, 2009]. Shikiar, *et al.*, [2003] have shown the validity, reliability, as well as responsiveness of many PRO measures for dermatologic disorders, including the Psoriasis Symptom Assessment, the Dermatology Life Quality Index, and two itch measures.

Drug makers and regulators are able to comprehend a disease's symptoms and burden from the patient's point of view, thanks to the evaluation of PROs during clinical trials. For the most part, manufacturers have seen the advantages of using PROs in medication development primarily in terms of their ability to support value propositions in reimbursement or get product labeling within the USA or a summary on product characteristics (SmPC) claim throughout Europe. Only two of the major players that affect market access to novel medications are payers and regulators; consumers and doctors also have an

important effect on the accessibility and use of pharmaceuticals.

Discussions on PROs, as well as product labeling, have generated a lot of interest since the FDA PRO guideline was released [FDA, 2009], both in academic journals and at business or professional conferences [Burke, L. *et al.*, 2008]. Sponsors are now being urged by the FDA to regularly include PRO measures into every facet of medication development. According to the fifth authorization in the Prescription Drug User Fee Act (PDUFA V), it has committed to more systematically gathering and releasing patient opinions on their illness and available medications to tackle it through the Patient-Focused Drug Development Initiative [FDA, 2016]. Furthermore, the FDA's initiatives to promote patient-focused medication development include the publishing of the prototype Clinical Outcomes Assessment Compendium [FDA, 2016]. In contrast to the FDA, the European Medicines Agency (EMA) has released a reflection paper offering general advice on HRQOL measurement in the context of clinical trials instead of issuing official guidelines tailored to PROs [EMA, 2016].

Topical medications typically serve to treat mild dermatological disorders. For example, mild to severe psoriasis affects approximately eighty percent of patients and may be effectively and safely managed by a topical medication [Menter, A. *et al.*, 2009]. Treatment of moderate-to-severe or resistant to treatment dermatologic disorders has historically used systemic medications, including methotrexate, cyclosporine, and acitretin. Clinical professionals and patients now have more treatment options thanks to the relatively recent emergence of biological treatments for patients with moderate-to-severe dermatologic disorders. Although the use of biological drugs has increased and dermatological outcomes have improved, but treatment costs are also going up [Chandler, D. *et al.*, 2013].

Payers, who must weigh the benefits and costs of treatment, have reimbursement issues with these medications due to the high cost of novel medicines for dermatologic illnesses. As a consequence, there is a need to define "value" and "meaningful clinical benefits" for new therapies. The beneficial effects of treatment can be evaluated in part through asking clinical trial participants about their encounters in feeling and functioning. [Suarez-Almazor, M. E. *et al.*, 2001]

PATIENTS AND METHODS

Study Design:

This study involved 65 patient's and a six-month follow-up evaluation (both before and after the dermatological treatment duration). Everyone participating in the dermatological patient experienced consented, according to their dermatologist, to receive medications for their skin condition prior to the dermatological treatment phase. The post-dermatological treatment phase took seven months resulting from the completion of each participant's pharmaceutical treatment.

Assessments of dermatology patients' self-esteem as well as social support occurred at different hospitals in Iraq. People who went through retinoid and antibiotic pharmacotherapy after their dermatologist diagnosed them with severe visible cystic acne on their faces, as well as other patients who underwent oral corticosteroids and antibiotics pharmacotherapy and topical salicylic acid, cream, and shampoo therapy.

Study Population:

Using snowball sampling, participants were simply diagnosed and told about the study by dermatologists. This method's shortcomings in terms of generalization and selection biases notwithstanding, the collection method utilized was appropriate and deliberate in the current study. Snowball sampling was specifically chosen since dermatological patients with psoriasis/eczema and acne are challenging to sample. The researcher can also ask participants to nominate other people for the study by employing snowball sampling. Because the participants in this approach are already acquainted with the initial sample that is already connected to the researcher, the researcher also has an opportunity to communicate to them with greater success.

At the initial meeting, participants obtained more information of the study and provided permission for participating for the follow-up phase when the pharmaceutical treatment was finished, which happened seven months after Phase 1. In addition, anonymity and the ability to withdraw of the research at any moment were explained to all participants. A brief interview was used to collect sociodemographic information from the participants for the purpose of screening them for eligibility. Information was also obtained on the body part afflicted by the skin illness, its visibility, and the dermatologist's suggested treatment therapy.

Measure:

A brief interview-style questionnaire was designed especially for this study and provided to all participants prior to the dermatological treatment phase. The survey was made up of closed-ended inquiries regarding the demographics of the participants (age, gender, and education) and the features of their skin problems (age of onset, type, localization of body part, visibility, and confirmation that they had consented to receive pharmaceutical treatment from their dermatologist at the time of research participation).

Rosenberg Self-Esteem Scale:

The scale that measures an individual's overall level of self-esteem consists of ten components. In a 4-point Likert scale, participants are prompted to indicate the degree to which they agree with the main points of each statement: 1 = deeply disapprove, 2 = disapprove, 3 = agree, as well as 4 = strongly agree. The questions are split into two categories: those that assess strong self-esteem and those that assess low self-esteem. Morris Rosenberg's scale is one of the psychological instruments used for participant self-assessment the most frequently. The self-esteem measure utilized in this study has been used in several previous patient evaluations; the internal consistency reliability of the tool scales ranged from 82 to 90. The same scale was utilized throughout every participant and research instance.

Interpersonal Support Evaluation List (ISEL-40):

The ISEL-40 study aims to ascertain people's perceptions of their social support network. It focuses on more of the various ways that people's social environments are impacted by their responses to stressful events. It consists of forty assertions regarding the availability of prospective social resources, half of which are positive and the other half in which are negative. This questionnaire is one of the few self-report tools that gauge patients' social support; its internal consistency reliability (Cronbach's α) varied from 81 to 89. Before and after dermatological therapy, study participants were given the opportunity to fill out the questionnaire.

Statistical Analysis:

To test the sample, the SPSS 22 statistical program for Windows was employed for assessing all pertinent assumptions. To be more precise, the distribution of the sample has a normal distribution. It was established using the Kolmogorov-Smirnov test, which yielded non-

statistically significant results ($D(162) = .11$, $p > .05$). As a consequence, this was determined whether the ANOVA analysis on variance would

be the most suitable test to analyze the current sample.

RESULTS

Table 1: Baseline and demographic characteristics of patients with skin disorders

Characteristics	Number of patients [n = 65]	Percentage
Age		
15 – 25	15	23.08%
26 – 35	20	30.77%
> 35	30	46.15%
Gender		
Male	48	73.85%
Female	17	26.15%
BMI, [Kg/m²]		
Underweight	9	13.85%
Normal weight	20	30.77%
Overweight	11	16.92%
Obesity	25	38.46%
Comorbidity		
Yes	20	30.77%
No	45	69.23%
Hypertension	15	23.08%
Diabetes	10	15.38%
Heart failure	3	4.62%
Anemia	6	9.23%
Kidney diseases	5	7.69%
Smoking status		
Yes	26	40%
No	39	60%
Educational level		
Primary school	10	15.38%
High School	12	18.46%
Bachelor's degree	20	30.77%
Postgraduate	23	35.38%
Economic Status		
Poor	4	6.15%
Middle	20	30.77%
Good	25	38.46%
Very good	16	24.62%
Marital Status		
Married	23	35.38%
Single	37	56.92%
Divorced	5	7.69%

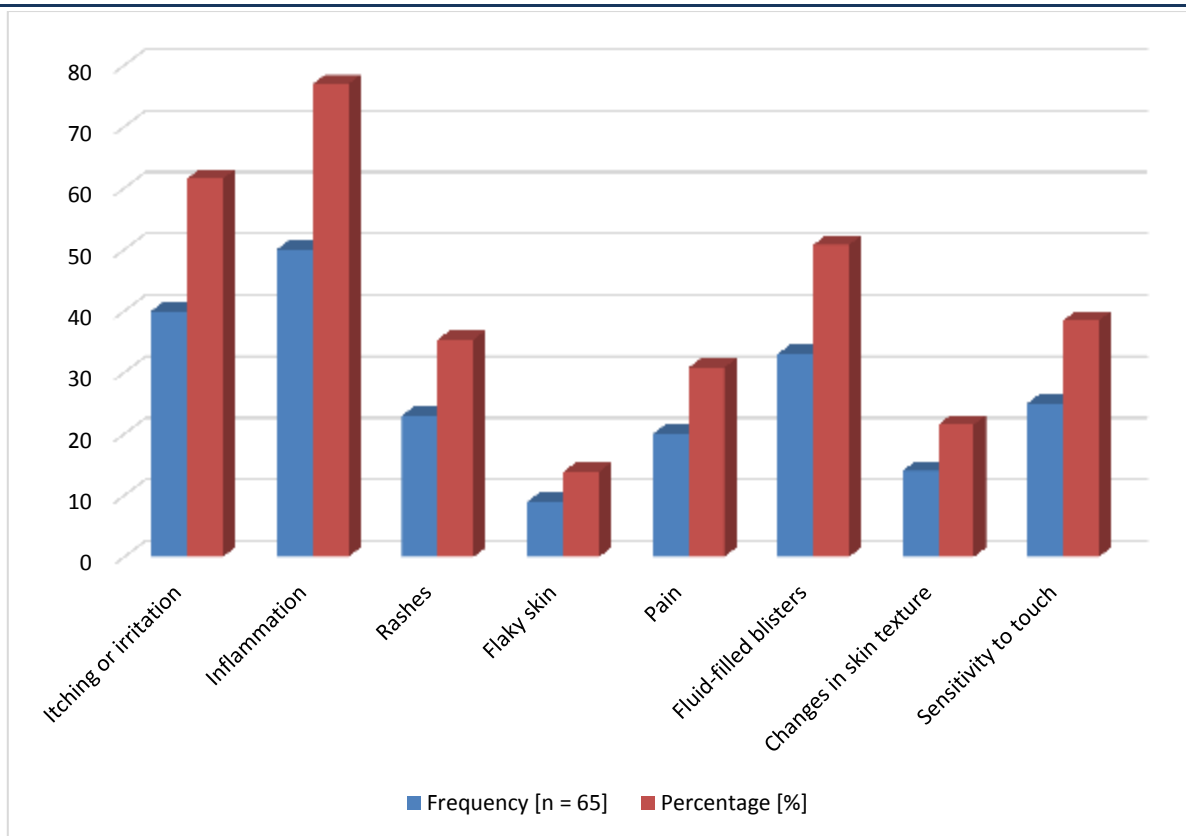


Figure 1: Identify the main symptoms prevalence in the patients with skin disorders.

Table 2: Classify severity levels of skin disorders in terms of mild, moderate, and severe by SCORAD scale.

Severity levels	Number of patients [n = 65]	Percentage [%]
Mild	12	18.46%
Moderate	23	35.38%
Severe	30	46.15%

Table 3: Assessment of Self-Esteem of patients with skin disorders before and after Dermatologists’ pharmacological intervention by

Items	Pre-intervention phase	Post-intervention phase
Strongly disagree	30 [46.15%]	8 [12.31%]
Disagree	20 [30.77%]	10 [15.38%]
Agree	10 [15.38%]	20 [30.77%]
Strongly agree	5 [7.69%]	27 [41.54%]

Table 4: Assessment of social support before and after Dermatologists’ pharmacological intervention by overall ISEL-40 scale.

Items	Pre-intervention phase	Post-intervention phase
Mild	40 [61.54%]	6 [9.23%]
Moderate	14 [21.54%]	20 [30.77%]
Severe	11 [16.92%]	39 [60%]

Table 5: Assessment of the impact of skin disorders into the quality of life related to patients.

Items	Pre-intervention phase	Post-intervention phase
Symptoms and feelings	7.60 ± 1.15	24.32 ± 4.80
Daily activities	13.53 ± 5.78	19.72 ± 4.24
Leisure	16.29 ± 5.63	22.85 ± 3.88
Work and school	16.11 ± 3.22	26.65 ± 2.49
Personal relationships	10.82 ± 2.95	21.92 ± 4.76
Treatment	13.55 ± 4.89	19.76 ± 2.90

DISCUSSION

The findings of the study showed that acne-suffering dermatological patients investigated for the fewest level of social support, which is indicative of an illness that makes them particularly vulnerable participants. The results of research with a sample of patients with eczema and acne, as well as those from earlier studies involving a sample for acne patients, seem to support the conclusions of this investigation. [Xiao, C. *et al.*, 2013]

Based on the findings of the current study, individuals who have dermatological conditions tend to experience lower levels in perceived social support but poorer self-esteem, and these variations do not seem to go completely following the treatment period. Therefore, it appears that dermatological intervention has little impact on how dermatological patients see the existence of a network of support. Furthermore, the results of the present investigation showed the groups of dermatology patients have low levels of perceived social support before to and even during the post-intervention time of the intervention. [Magin, P. J. *et al.*, 2011; Fortune, D. G. *et al.*, 1997]

The reality that the post-intervention time occurred during the summer may be among the environmental variables contributing to the decline in felt social support across all participants at the post-dermatological treatment phase. Patients with skin disease, however, appeared to receive less perceived social support [Sticherling, M. *et al.*, 2013; Xiao, C. *et al.*, 2013; Chandler, D. *et al.*, 2013; Ortonne, J. P. *et al.*, 2009]. This finding raises the possibility that some of these dermatology patients would benefit from psychosocial interventions in addition to their dermatological care so they could look into all the information that was available to them and how they felt about themselves to connection with their significant others. The findings of research that included a sample of individuals with psoriasis and eczema, as well as earlier studies that included psoriasis patients, appear to support the conclusions of this investigation [Staab, D. *et al.*, 2005 – Ramsay, B. *et al.*, 1988]. In addition, given that individuals with acne appeared to receive the lowest levels of perceived social support, we derive the conclusion that the noticeable anatomical location of the dermatological disorder—the face—may have an additional impact on how a patient views himself and other people. [Lewis-Jones, S, 2006]

More precisely, it appears that the selectivity in the social perception of acne patients is affected by the fact that, to be an outcome of their visible anatomical localization, they must focus on their face considerably more frequently than on their emotions before engaging in any social activity [Beck, C. T, 2006]. Since the current study's results indicate that people with psoriasis appear to receive poor perceived social support, we infer that the unfavourable social view is more incomplete when there is no evident particular dermatological disease and when it can be covered up with clothes. [Naderifar, M. *et al.*, 2017; Rosenberg, M, 1965]

The fact that individuals with psoriasis or eczema are more likely to notice their skin than patients with acne, who are unable to conceal their face constantly, may help to explain the difference to perceived social support among patients with skin disorders [Cohen, S. *et al.*, 1985]. As a result, it seems that patients with acne have a more solid social view of their condition of the skin that is selective. [Adonis, M. N. *et al.*, 2018]

CONCLUSION

Dermatological patients' self-esteem and perception of their social support system appear to get negatively impacted by psoriasis, eczema, and acne. The results of this research indicate that patients with dermatological conditions, especially those with visible localization of their skin disorder (acne patients), exhibit a lower degree in perceived social support and self-esteem both before and after receiving dermatological treatment. As a consequence, some people might suffer a variety of complicated psychological consequences which call upon their specific treatment strategies.

REFERENCES

1. Hollestein, L. M. & Nijsten, T. "An Insight into the Global Burden of Skin Diseases." *Journal of Investigative Dermatology*, 134 (2014): 1499–1501.
2. Hay, R. J., Johns, N. E., Williams, H. C., Bolliger, I. W., Dellavalle, R. P. and Margolis, D. J, *et al.* "The Global Burden of Skin Disease in 2010: An Analysis of the Prevalence and Impact of Skin Conditions." *Journal of Investigative Dermatology*, 134 (2014): 1527–1534.
3. Ahmed, A., Leon, A., Butler, D. C. & Reichenberg, J. "Quality-of-Life Effects of Common Dermatological Diseases." *Seminars*

- in Cutaneous Medicine and Surgery*, 32 (2013): 101–109.
4. Townshend, A., Chen, C.-M. & Williams, H. "How Prominent Are Patient-Reported Outcomes in Clinical Trials of Dermatological Treatments?" *British Journal of Dermatology*, 159 (2008): 1152–1159.
 5. Food and Drug Administration (FDA). Guidance for industry. Patient-reported outcome measures: use in medical product development to support labeling claims. (2009).
 6. Lebwohl, M., Swensen, A. R., Nyirady, J., Kim, E., Gwaltney, C. J. & Strober, B. E. "The Psoriasis Symptom Diary: Development and Content Validity of a Novel Patient-Reported Outcome Instrument." *International Journal of Dermatology*, 53 (2014): 714–722.
 7. Secukinumab US prescribing information. 2016. <http://www.pharma.us.novartis.com/product/pi/pdf/cosentyx.pdf>. (2016).
 8. Secukinumab EU summary of product characteristics (SmPC). 2016. http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/003729/WC500183129.pdf. (2016).
 9. Strober, B., Sigurgeirsson, B., Popp, G., Sinclair, R., Krell, J. and Stonkus, S, *et al.* "Secukinumab Improves Patient-Reported Psoriasis Symptoms of Itching, Pain, and Scaling: Results of Two Phase 3, Randomized, Placebo-Controlled Clinical Trials." *International Journal of Dermatology*, 55 (2016): 401–407.
 10. Acquadro, C., Berzon, R., Dubois, D., Leidy, N. K., Marquis, P., Revicki, D., Rothman, M. & PRO Harmonization Group. "Incorporating the Patient's Perspective into Drug Development and Communication: An Ad Hoc Task Force Report of the Patient-Reported Outcomes (PRO) Harmonization Group Meeting at the Food and Drug Administration, 16 Feb 2001." *Value in Health*, 6 (2003): 522–531.
 11. Doward, L. C. & McKenna, S. P. "Defining Patient-Reported Outcomes." *Value in Health*, 7.1 (2004): S4–S8.
 12. Shikhar, R., Bresnahan, B., Stone, S., Thompson, C., Koo, J. & Revicki, D. A. "Validity and Reliability of Patient-Reported Outcomes Used in Psoriasis: Results from Two Randomized Clinical Trials." *Health and Quality of Life Outcomes*, 1 (2003): 53.
 13. Burke, L., Kennedy, D., Miskala, P., Papadopoulos, E. & Trentacosti, A. "The Use of Patient-Reported Outcomes Measures in the Evaluation of Medical Products for Regulatory Approval." *Clinical Pharmacology & Therapeutics*, 84 (2008): 281–283.
 14. Food and Drug Administration (FDA). The voice of the patient: a series of reports from FDA's Patient-Focused Drug Development Initiative. <http://www.fda.gov/ForIndustry/UserFees/PrescriptionDrugUserFee/ucm368342.htm>. (2016).
 15. Food and Drug Administration (FDA). Clinical outcome assessment compendium. <http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/ucm459231.htm>. (2016).
 16. European Medicines Agency (EMA). Committee for Medicinal Products for Human Use. Reflection paper on the regulatory guidance for the use of health-related quality of life (HRQL) measures in the evaluation of medicinal products. 27 Jul 2005. <http://www.ispor.org/workpaper/emea-hrql-guidance.pdf>. (2016).
 17. Menter, A., Korman, N. J., Elmets, C. A., Feldman, S. R., Gelfand, J. M., Gordon, K. B. and American Academy of Dermatology, *et al.* "Guidelines of Care for the Management of Psoriasis and Psoriatic Arthritis. Section 3. Guidelines of Care for the Management and Treatment of Psoriasis with Topical Therapies." *Journal of the American Academy of Dermatology*, 60 (2009): 643–659.
 18. Chandler, D. & Bewley, A. "Biologics in Dermatology." *Pharmaceuticals (Basel)*, 6.4 (2013): 557–578.
 19. Suarez-Almazor, M. E., Conner-Spady, B., Kendall, C. J., Russell, A. S. & Skeith, K. "Lack of Congruence in the Ratings of Patients' Health Status by Patients and Their Physicians." *Medical Decision Making*, 21.2 (2001): 113–121.
 20. Xiao, C., Polomano, R. & Bruner, D. W. "Comparison between Patient-Reported and Clinician-Observed Symptoms in Oncology." *Cancer Nursing*, 36 (2013): E1–E16.
 21. Magin, P. J., Pond, C. D., Smith, W. T., Watson, A. B. & Goode, S. M. "Correlation and Agreement of Self-Assessed and Objective Skin Disease Severity in a Cross-Sectional Study of Patients with Acne, Psoriasis, and Atopic Eczema." *International*

- Journal of Dermatology*, 50 (2011): 1486–1490.
22. Fortune, D. G., Main, C. J., O’Sullivan, T. M. & Griffiths, C. E. "Quality of Life in Patients with Psoriasis: The Contribution of Clinical Variables and Psoriasis-Specific Stress." *British Journal of Dermatology*, 137 (1997): 755–760.
 23. Sticherling, M., Eicke, C. & Anger, T. "Practicability of Combined Treatment with Calcipotriol/Betamethasone Gel (Daivobet Gel) and Improvement of Quality of Life in Patients with Psoriasis." *Journal der Deutschen Dermatologischen Gesellschaft*, 11 (2013): 420–427.
 24. Ortonne, J. P., Ganslandt, C., Tan, J., Nordin, P., Kragballe, K. & Segaert, S. "Quality of Life in Patients with Scalp Psoriasis Treated with Calcipotriol/Betamethasone Dipropionate Scalp Formulation: A Randomized Controlled Trial." *Journal of the European Academy of Dermatology and Venereology*, 23 (2009): 919–926.
 25. Staab, D., Kaufmann, R., Brautigam, M. & Wahn, U. "Treatment of Infants with Atopic Eczema with Pimecrolimus Cream 1% Improves Parents’ Quality of Life: A Multicenter, Randomized Trial." *Pediatric Allergy and Immunology*, 16 (2005): 527–533.
 26. Gnanasakthy, A., DeMuro, C. & Boulton, C. "Integration of Patient-Reported Outcomes in Multiregional Confirmatory Clinical Trials." *Contemporary Clinical Trials*, 35 (2013): 62–69.
 27. Ramsay, B. & O’Reagan, M. "A Survey of the Social and Psychological Effects of Psoriasis." *British Journal of Dermatology*, 118.2 (1988): 195–201.
 28. Lewis-Jones, S. "Quality of Life and Childhood Atopic Dermatitis: The Misery of Living with Childhood Eczema." *International Journal of Clinical Practice*, 60.8 (2006): 984–992.
 29. Beck, C. T. "Study Guide to Accompany Essentials of Nursing Research: Methods, Appraisal, and Utilization." *Lippincott Williams and Wilkins*, (2006).
 30. Naderifar, M., Goli, H. & Ghaljaie, F. "Snowball Sampling: A Purposeful Method of Sampling in Qualitative Research." *Strides in Development of Medical Education*, 14.3 (2017): 1–6.
 31. Rosenberg, M. "Rosenberg Self-Esteem Scale (RSE)." *Acceptance and Commitment Therapy Measures Package*, 61.52 (1965).
 32. Cohen, S., Mermelstein, R. and Kamarck, T, *et al.* "Measuring the Functional Components of Social Support." *In: Social Support: Theory, Research, and Applications*. Springer, (1985): 73–94.
 33. Adonis, M. N., Demetriou, E. A. & Skotinou, A. "Acute Stress Disorder in Greek Cypriots Visiting the Occupied Areas." *Journal of Loss and Trauma*, 23.1 (2018): 15–28.

Source of support: Nil; **Conflict of interest:** Nil.

Cite this article as:

Al-Khaykane, T.A.H. and Hussein, S.F.M. "The Psychological Impact of Skin Conditions: Understanding the Dermatology-Psychology Connection." *Sarcouncil journal of Medical sciences* 3.7 (2024): pp 16-23.