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[[Translated article]]Evaluation of Quality of Life in Patients With Chronic Dermatological Conditions Receiving Phototherapy

E. Rodríguez-Gabella B. Martín-Gil N. Rivas-González E. Fernández-Martínez



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Carta científico-clínica

Evaluación de la calidad de vida en pacientes con enfermedad dermatológica crónica que han recibido fototerapia

[[Translated article]]Evaluation of Quality of Life in Patients With Chronic Dermatological Conditions Receiving Phototherapy

Autores: E. Rodríguez-Gabella^a, B. Martín-Gil^b, N. Rivas-González^c, E. Fernández-Martínez^d

^a Servicio de Dermatología, Hospital Clínico Universitario de Valladolid

^b Sistemas de Información de Gestión de Cuidados, Hospital Clínico Universitario de Valladolid

^c Unidad de Formación Continuada, Hospital Clínico Universitario de Valladolid

^d Grupo de Investigación SALBIS. Facultad de Ciencias de la Salud, Universidad de León.

Autora de correspondencia:

Elsa Rodríguez Gabella

E-mail: erodriguezga@saludcastillayleon.es

To the Editor,

The quality of life of patients with chronic dermatological disease is compromised by symptoms that affect their emotional and social well-being¹. Identifying the most affected aspects of quality of life will allow the design of strategies to reduce stigma and symptoms associated with the disease². Therefore, this study was designed with the aim of identifying what changes in quality of life and in the intensity of pruritus occurred in patients with a chronic dermatological disease after treatment with phototherapy, during dermatology nursing consultations.

This quasi-experimental, pre-post intervention study included patients older than 18 years, selected through non-probabilistic sampling, who attended the dermatology service from May through October 2023, with a diagnosis of psoriasis or nodular prurigo, and were eligible for narrowband UVB (NB-UVB) phototherapy. Treatment was administered at a protocolized dose based on the patient's characteristics and disease progression, with a 3-month regimen in 2–3 weekly sessions, in the nurse-led dermatology consultation at a tertiary public referral center in the Castile and León public health system (Castile and León, Spain).

Sociodemographic, clinical, and outcome variables were included. Quality of life was measured using the Dermatology Life Quality Index (DLQI)³, and itching was assessed 24 hours prior to session #1 using the Numerical Rating Scale for Maximum Pruritus (NRS)⁴.

A total of 39 patients were included (22 (56.4%) women and 17 (43.6%) men) with a mean age of 53.2 years (SD: 16.3). Twenty-two of these (56.4%) had psoriasis and 17 (43.6%), nodular prurigo; 19 (48.7%) were employed, and 20 (51.3%) were not.

Significant changes were observed in the mean values of quality of life, pruritus, and the severity of prurigo and psoriasis, pre- and post-intervention (Table 1).

A detailed analysis of each DLQI item is shown in Table 2; the items where the worst quality of life was reported were: “feeling itchy, sore, painful, or stinging in the skin,” followed by “feeling uncomfortable due to skin problems” and “the burden of skin treatment.”

Table 3 illustrates the results compared by gender, age group, dermatological diagnosis, and employment status.

Literature agrees that phototherapy is an appropriate therapeutic option for patients with pruritus and that the impact of symptoms must be addressed individually⁴⁻⁵.

These results are similar to those from studies conducted with systemic treatments, suggesting that it may be beneficial to consider the use of combined therapies in patients with room for improvement⁶.

The most affected aspects after treatment were the difficult-to-treat symptoms typical of chronicity, which may improve with additional treatments or interventions⁵. The discomfort caused by the disease may stem from its visual impact, both personally and socially. The relevance of how skin disease affects overall appearance has been highlighted, as it may trigger psychiatric comorbidities⁴. The lowest-rated item was “the burden of skin treatment.” These chronic conditions require continuous self-care to avoid worsening, which involves time and dedication⁷.

Female patients reported greater impairment in quality of life and pruritus prior to treatment. This may be due to women experiencing a greater emotional impact because of social expectations, which worsens their overall distress before receiving appropriate treatment. These differences in perceived disease burden suggest that therapy optimization may require gender-specific considerations and confirm the need to increase the number of studies assessing the impact of disease and treatment by gender⁸.

Work performance is also affected. Job choice, absenteeism, and clothing selection, among others, are factors identified in studies as having a significant impact on work life or its absence⁹.

Some studies conclude that younger patients experience a greater decline in quality of life due to social stigma and social relationships; whereas in patients aged 30 to 50 years, this is linked to greater knowledge of the disease and stronger social relationships, which positively influence quality of life. Therefore, age range should be taken into consideration when planning treatment¹⁰.

The study limitations are inherent to its design. As a self-administered questionnaire was used, desirability bias may exist. The study setting is specific, which limits the generalizability of the results.

In conclusion, the influence of chronic dermatological conditions on quality of life was evident. Phototherapy treatment improved patients' perception of their quality of life and reduced pruritus. However, we saw that some patients still had suboptimal quality

of life scores after the intervention. Being a woman, aged 50 to 60 years, with nodular prurigo and not currently employed was associated with a greater impact on quality of life and pruritus intensity.

Conflicts of interest

None declared.

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References

<BIBL>

<BIB>

1

S Musters F A.H.

S Mashayekhi F S.

S Harvey F J.

S Axon F E.

S Lax F S.J.

S Flohr F C.<ET-AL>

AT Phototherapy for atopic eczema

JT Cochrane Database Syst Rev [Internet].

V 10

D 2021

P CD013870

DOI 10.1002/14651858.CD013870.pub2

<original_ref>[1] Musters AH, Mashayekhi S, Harvey J, Axon E, Lax SJ, Flohr C, et al.

Phototherapy for atopic eczema. The Cochrane Database of Systematic Reviews

[Internet]. 2021 Oct 28;10:CD013870.

<DOI>10.1002/14651858.CD013870.pub2.</DOI></original_ref>

</BIB>

<BIB>

2

S Ko F S.H.

S Chi F C.C.

S Yeh F M.L.

S Wang F S.H.

S Tsai F Y.S.

S Hsu F M.Y.

AT Lifestyle changes for treating psoriasis

JT Cochrane Database Syst Rev.

D 2019

V 7

P CD011972

DOI 10.1002/14651858.CD011972.pub2

<original_ref>[2] Ko SH, Chi CC, Yeh ML, Wang SH, Tsai YS, Hsu MY. Lifestyle changes for treating psoriasis. Cochrane Database of Systematic Reviews. 2019 Jul 16.

<DOI>10.1002/14651858.CD011972.pub2.</DOI></original_ref>

</BIB>

<BIB>

3

S De Tiedra F A.G.

S Mercadal F J.

S Badía F X.

S Mascaró F J.M.

S Herdman F M.

S Lozano F R.

AT Adaptación transcultural al español del cuestionario Dermatology Life Quality Index (DLQI): El Índice de Calidad de Vida en Dermatología

JT Actas Dermosifiliogr [Internet].

V 89

D 1998

P 692-L 700

C [consultado 9 Jul 2024]. Disponible en: <https://www.actasdermo.org/es-adaptacion-transcultural-al-espanol-del-articulo-13003408>.

<original_ref>[3] de Tiedra AG, Mercadal J, Badía X, Mascaró JM, Herdman M, Lozano R. Adaptación transcultural al español del cuestionario Dermatology Life Quality Index (DLQI): El Índice de Calidad de Vida en Dermatología. Actas Dermo-Sifiliográficas [Internet]. 1998 Dec 1;89<I>(12):692–700 [cited 2024 Jul 9]. Available from: <https://www.actasdermo.org/es-adaptacion-transcultural-al-espanol-del-articulo-13003408>.

</BIB>

<BIB>

4

S Boehlke F C.

S Joos F L.

S Coune F B.

S Becker F C.

S Meerpohl F J.J.

S Buroh F S.<ET-AL>

AT Pharmacological interventions for pruritus in adult palliative care patients

JT Cochrane Database Syst Rev [Internet].

V 4

D 2023

P CD008320

DOI 10.1002/14651858.CD008320.pub4

<original_ref>[4] Boehlke C, Joos L, Coune B, Becker C, Meerpohl JJ, Buroh S, et al. Pharmacological interventions for pruritus in adult palliative care patients. The Cochrane Database of Systematic Reviews [Internet]. 2023 Apr 14;4<I>(2023):CD008320.

<DOI>10.1002/14651858.CD008320.pub4.</DOI></original_ref>

</BIB>

<BIB>

5

S Arrieta F A.

S Jaka F A.

S del Alcázar F E.

S Blanco F M.

S Carrascosa F J.M.

AT Phototherapy for Prurigo Nodularis: Our Experience and a Review of Literature

JT Actas Dermosifiliogr (English Ed).

V 112

D 2021

P 339-L 344

DOI 10.1016/j.adengl.2020.11.006

<original_ref>[5] Arrieta A, Jaka A, del Alcázar E, Blanco M, Carrascosa JM.

Phototherapy for Prurigo Nodularis: Our Experience and a Review of Literature. Actas Dermo-Sifiliográficas (English Edition). 2021 Apr;112<I>(4):339–44.

<DOI>10.1016/j.adengl.2020.11.006</DOI>.</original_ref>

</BIB>

<BIB>

6

S Ramos F F.M.

S Puchades F A.M.

S Matáix-Díaz F J.

S Schneller-Pavelescu F L.

S Belinchón-Romero F I.

S Alarcón F S.S.

AT [Artículo traducido] Eficacia a medio plazo (52 semanas) de tildrakizumab en el tratamiento de la psoriasis moderada a severa: un estudio multicéntrico de práctica clínica

JT Actas Dermosifiliogr.

D 2024

V 115

P T722-L T726

<original_ref>[6] Ramos, F.M., Puchades, A.M., Matáix-Díaz, J., Schneller-Pavelescu, L., Belinchón-Romero, I., & Alarcón, S.S. (2024). [Artículo traducido] Eficacia a medio plazo (52 semanas) de tildrakizumab en el tratamiento de la psoriasis moderada a severa: un estudio multicéntrico de práctica clínica. Actas Dermo-Sifiliográficas.</original_ref>

</BIB>

<BIB>

7

S Puig F L.

S Carrascosa F J.M.

S Belinchón F I.

S Fernández-Redondo F V.

S Carretero F G.

S Ruiz-Carrascosa F J.C.<ET-AL>

AT Adherencia y satisfacción del paciente y características organolépticas y de uso de los tratamientos tópicos utilizados para la psoriasis: Consenso Delphi del panel de expertos y miembros del Grupo de Psoriasis de la Academia Española de Dermatología y Venereología

JT Actas Dermosifiliogr.

V 104

D 2013

P 488-L 496

DOI 10.1016/j.ad.2012.12.005

<original_ref>[7] Puig L, Carrascosa JM, Belinchón I, Fernández-Redondo V, Carretero G, Ruiz-Carrascosa JC, et al. Adherencia y satisfacción del paciente y características organolépticas y de uso de los tratamientos tópicos utilizados para la psoriasis: Consenso Delphi del panel de expertos y miembros del Grupo de Psoriasis de la Academia Española de Dermatología y Venereología. Actas Dermo-Sifiliográficas. 2013 Jul;104<I>(6):488–96. <DOI>10.1016/j.ad.2012.12.005</DOI>.</original_ref>

</BIB>

<BIB>

8

AT Do anti-psoriatic drugs work better in women than men?

JT Br J Dermatol.

V 185

D 2021

P e200-L e213

DOI 10.1111/bjd.20787

<original_ref>[8] <CB>Do anti-psoriatic drugs work better in women than men?</CB>. (2021). The British journal of dermatology, 185<I>(6), e200–e213. <DOI>10.1111/bjd.20787.</DOI></original_ref>
</BIB>

<BIB>

9

S Sanchez-Diaz F M.

S Díaz-Calvillo F P.

S Soto-Moreno F A.

S Molina-Leyva F A.

S Arias-Santiago F S.

AT Factors Influencing Major Life-Changing Decisions in Patients with Psoriasis: A Cross-sectional Study

JT Acta Derm Venereol.

V 103

D 2023

P adv11640

DOI 10.2340/actadv.v103.11640

<original_ref>[9] Sanchez-Diaz, M., Díaz-Calvillo, P., Soto-Moreno, A., Molina-Leyva, A., & Arias-Santiago, S. (2023). Factors Influencing Major Life-Changing Decisions in Patients with Psoriasis: A Cross-sectional Study. Acta dermato-venereologica, 103, adv11640.

<DOI>10.2340/actadv.v103.11640.</DOI></original_ref>

10

S Decean F L.

S Badea F M.

S Rus F V.

S Buicu F G.

S Sasu F A.

S Pilut F C.N.<ET-AL>

AT The Implication of Misinformation and Stigma in Age-Related Quality of Life, Depression, and Coping Mechanisms of Adult Patients with Psoriasis

JT Medicina (Kaunas, Lithuania).

V 58

D 2022

P 1420

DOI 10.3390/medicina58101420

<original_ref>[10] Decean, L., Badea, M., Rus, V., Buicu, G., Sasu, A., Pilut, C.N., & Mihai, A. (2022). The Implication of Misinformation and Stigma in Age-Related Quality of Life, Depression, and Coping Mechanisms of Adult Patients with Psoriasis. Medicina (Kaunas, Lithuania), 58<I>(10), 1420.

<DOI>10.3390/medicina58101420.</DOI></original_ref>

Table 1. Mean pre- and post-intervention scores for DLQI questionnaire, NRS scale, PASI, and PAS

	Pre-intervention Mean	Pre- intervention SD	Post-intervention Mean	Post- intervention SD	p- value
<i>Dermatology Life Quality Index (DLQI)</i>	14.88	7.18	4.41	3.84	< 0.001
<i>Numerical Rating Scale (NRS) for Maximum Pruritus</i>	8.40	1.72	2.28	1.96	< 0.001
<i>Prurigo Activity Score (PAS)</i>	14.80	4.83	3.63	3.25	< 0.001
<i>Psoriasis Area and Severity Index (PASI)</i>	13.52	7.27	4.81	2.68	< 0.001

Table 2. Comparison of mean scores for the 10 items of the DLQI questionnaire, pre- and post-intervention

Item	Pre- intervention Mean	Pre- intervention SD	Post- intervention Mean	Post- intervention SD	95% CI Lower	95% CI Upper	p-value
Have you felt itching, inflammation, pain, or burning in your skin?	2.50	0.68	0.80	0.56	1.45	1.95	< 0.001
Have you felt uncomfortable or self-conscious because of your skin problems?	2.38	0.84	0.73	0.64	1.38	1.92	< 0.001
Have your skin problems interfered with shopping or taking care of your home or garden?	1.60	1.03	0.30	0.52	1.00	1.60	< 0.001
Have your skin problems influenced the clothes you wear?	1.63	1.03	0.48	0.68	0.84	1.46	< 0.001
Have your skin problems affected any social or leisure activity?	1.33	1.00	0.38	0.63	0.66	1.24	< 0.001
Has it been difficult to play sports because of your skin problems?	1.18	1.01	0.35	0.58	0.55	1.10	< 0.001
Has your skin caused you any problems at work or school?	0.98	0.97	0.20	0.46	0.52	1.03	< 0.001
Has your skin caused problems with your partner, close friend, or relative?	0.65	0.80	0.15	0.43	0.28	0.72	< 0.001
Have your skin problems made your sex life difficult?	0.63	0.90	0.13	0.40	0.27	0.73	< 0.001
Has your skin treatment been a problem, for example by making a mess at home or taking up your time?	2.13	0.72	0.88	0.69	1.01	1.49	< 0.001

Table 3. Comparison of mean (SD) DLQI and NRS scores, pre- and post-intervention, by gender, age group, diagnosis (excluding atopic dermatitis due to only one case), and employment status

		DLQI Questionnaire		p	NRS Scale		p
Female	Preintervention	Mean	15.78	< 0.001	8.78	< 0.001	
		SD	6.80		1.53		
	Postintervention	Mean	4.30	< 0.001	2.39	< 0.001	
		SD	3.40		2.29		
Male	Preintervention	Mean	13.71	< 0.001	7.82	< 0.001	
		SD	7.69		1.77		
	Postintervention	Mean	4.47		2.06		

Age < 50	Preintervention	SD	4.30	0.002	1.63	0.002
		Mean	14.92		8.17	
		SD	9.13		1.89	
Age between 50 and 60 (included)	Postintervention	Mean	4.17	0.003	2.17	0.003
		SD	4.91		2.03	
		Mean	16.91		8.73	
Age > 60	Preintervention	SD	7.48	< 0.001	0.64	< 0.001
		Mean	6.00		2.73	
		SD	3.79		2.53	
Nodular prurigo	Postintervention	Mean	13.59	< 0.001	8.29	< 0.001
		SD	5.35		2.02	
		Mean	3.47		2.00	
Psoriasis	Preintervention	SD	2.47	< 0.001	1.69	< 0.001
		Mean	16.71		8.82	
		SD	7.65		0.88	
Works / Studies	Postintervention	Mean	4.59	< 0.001	1.76	< 0.001
		SD	4.47		1.56	
		Mean	12.91		7.95	
Unemployed / Retired	Preintervention	SD	6.02	< 0.001	2.06	< 0.001
		Mean	4.32		2.68	
		SD	3.27		2.30	
	Postintervention	Mean	14.00	< 0.001	7.95	< 0.001
		SD	7.61		1.85	
		Mean	3.80		1.45	
	Preintervention	SD	3.55	< 0.001	1.28	< 0.001
		Mean	15.80		8.80	
		SD	6.80		1.44	
	Postintervention	Mean	4.95		3.05	
		SD	3.97		2.33	