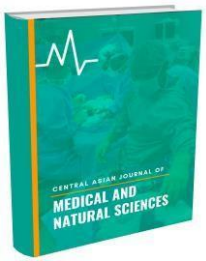

CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES
https://cajmns.centralasianstudies.org/index.php/CAJMNS
Volume: 06 Issue: 02 | April 2025 ISSN: 2660-4159

Article

Evaluation of The Quality of Life of Iraqi Patients with Acne (A Cross-sectional Study of 109 Patients) and Identification of Risk Factors

Nabeel Omar Kadir[*1]

1. Ministry of Higher Education and Scientific Research, Kirkuk University \ College of Medicine, Kirkuk, Iraq
* Correspondence: nabeelomar75@uokirkuk.edu.iq

Abstract: This study contributes to assessing general health and quality of life and determining adverse factors that impact in Iraqi patients with acne. Acne affects over 80% of teenagers and typically persists into adulthood. During June 2023 to November 2024, we performed a study on 109 consenting people with acne vulgaris that were older over 15 years. The Dermatology Quality of Life Score (DLQI) questionnaire was used to grade acne vulgaris along with its aftereffects and evaluate quality of life. Our study indicated that for girls with 56 and boys with 53, acne in the face site has 63.30%, oily skin with 70.64%, post-acne hyperpigmentation with 75.23%, II grade of acne had 70.64%, and severe acne scar had 50 cases, very large effect of acne on dermatology life quality with 21.10%. This study found that acne sufferers' quality of life was significantly impaired. Females were more impacted than males, the age group 21-25 more than the other categories, and the higher the grade "severity" for acne, the greater the amount of damage in quality of life.

Keywords: Acne, Dermatology Life Quality Index (DLQI), Quality-life Evaluation, Males and Females

1. Introduction

About 80% of people, particularly young adults and adolescents, are affected by acne, a chronic, self-sufficient, and easily diagnosable disease that reduces their quality of life [1], [2], [3].

According [4], [5], [6], [7], [8], [9] to some studies, those who have acne have a lower quality of life as well as are more likely to have anxiety or mood disorders. However, the effect on quality of life is not necessarily directly correlated with the severity of acne. Dermatological and global measures are being used to evaluate acne patients' quality of life [10], [11], [12], [13], [14]

The face is most affected, then the back, shoulders, arms, neck, and chest. Acne vulgaris's social and psychological effects are related to these exposed locations [15], [16], [17]. Global assessment of the disease's severity also plays a significant role in the psychological aspect. According to a study conducted in China, over 66% of people had mild acne, 33% had moderate acne, and 33% had severe acne [18], [19].

Citation: Kadir, N. O. Evaluation of The Quality of Life of Iraqi Patients with Acne (A Cross-sectional Study of 109 Patients) and Identification of Risk Factors. Central Asian Journal of Medical and Natural Science 2025, 6(2), 434-440.

Received: 10th Jan 2024
Revised: 20th Jan 2024
Accepted: 1st Feb 2025
Published: 4th Feb 2025

2. Materials and Methods

During June 2023 until November 2024, a cross-sectional study was conducted on 109 acne patients in the dermatology departments of Azadi Teaching Hospital and a private clinic in Kirkuk City in, Iraq. The study comprised patients between the ages of 15 and 25 who have been diagnosed with acne vulgaris. Patients having a known history of a mental problem or concomitant somatic disorders that can impair their mental status, as well as those who utilized topical or systemic medicines recognized to contribute them to acne, were excluded. A comprehensive history was collected, including sociodemographic information, presenting problems, and acne duration.

A single dermatologist examined all patients' skin and recorded the following information: type of skin, site of lesion, severity of acne, post-acne hyperpigmentation, as well as acne scars. Acne vulgaris was classified as follows: Degree I: Comedones, infrequent papules; Degree II: Papules, comedones, few pustules; Degree III: Predominant pustules, nodules, abscesses; and Degree IV: cysts, abscesses, extensive scarring. Acne scars were classified as mild (fewer than five scars), moderate (5-10 scars), and severe (more than 10 scars).

The DLQI questionnaire was administered to all acne patients, and it is an approved survey that grades the quality of life by examining the following domains: physical symptoms along with emotions, daily activities, leisure, school or work, relationships with others, and treatment. Each domain is rated as "very much" (scoring 3), "a lot" (score 2), "a little" (score 1), or "not at all" (score 0). The final DLQI score was the total of all scores (ranging from 0 to 30). High scores imply a bad quality of life..

3. Results

Outcomes of a total of 109 Iraqi patients with acne were enrolled in this study. We found patients who were above 20 years got 69.72%, girls were 51.38% and, boys were 48.62%, 27.52% was smokers, and 33.03% had skin allergies, where all demographic results can be described in Table 1.

Table 1. Baselines Of Demographic Features At Patients With Acne.

Items	Variables	N = 109	%
Age Groups, (Y)			
	15 – 20	33	30.28%
	> 20	76	69.72%
Sex			
	Girls	56	51.38%
	Boys	53	48.62%
Body Mass Index, Bmi (Kg/M2)			
	Underweight	14	12.84%
	Normal weight	34	31.19%
	Overweight	21	19.27%
	Obesity	40	36.70%
Smoking Status			
	Yes	30	27.52%
	No	79	72.48%
Allergic Status			
	With	36	33.03%
	Without	73	66.97%
Marital Status			

	Single	75	68.81%
	Married	33	30.28%
Educations Level			
	Educated	12	11.01%
	Un - educated	96	88.07%
Occupation Status			
	Worked	18	16.51%
	Un – worked	91	83.49%

In terms of Table 2, we noticed 63.30% of patients had face acne, and 70.64% of patients had oily skin. Also, these outcomes enrolled that almost 70.64% of patients had severity of acne with two grades, and 45.87% of patients suffered from acne scars.

Table 2. Distribution Of Acne Examination On All Patients.

Categories	Variables	Number Of Patients {N = 109}	%
Acne's Locations			
	Face	69	63.30%
	Back	5	4.59%
	Face and chest	10	9.17%
	Face and back	15	13.76%
	Chest and back	2	1.83%
	All	8	7.34%
Skin' S Types			
	Dry	3	2.75%
	Normal	29	26.61%
	Oily	77	70.64%
Post-Acne Hyperpigmentation			
	Yes	82	75.23%
	No	27	24.77%

Table 3. Measurement Of Acne Scar, Grade Acne, And Identify Duration Of Acne.

Items	Variables	Number of patients: 109	%
Grade of acne			
	1	12	11.01%
	2	77	70.64%
	3	17	15.60%
	4	3	2.75%
Acne scar			
	Mild	32	29.36%
	Moderate	27	24.77%
	Severe	50	45.87%
Acne's period			

	0 – 8	14	12.84%
	9 – 17	20	18.35%
	18 – 26	34	31.19%
	> 26	41	37.61%

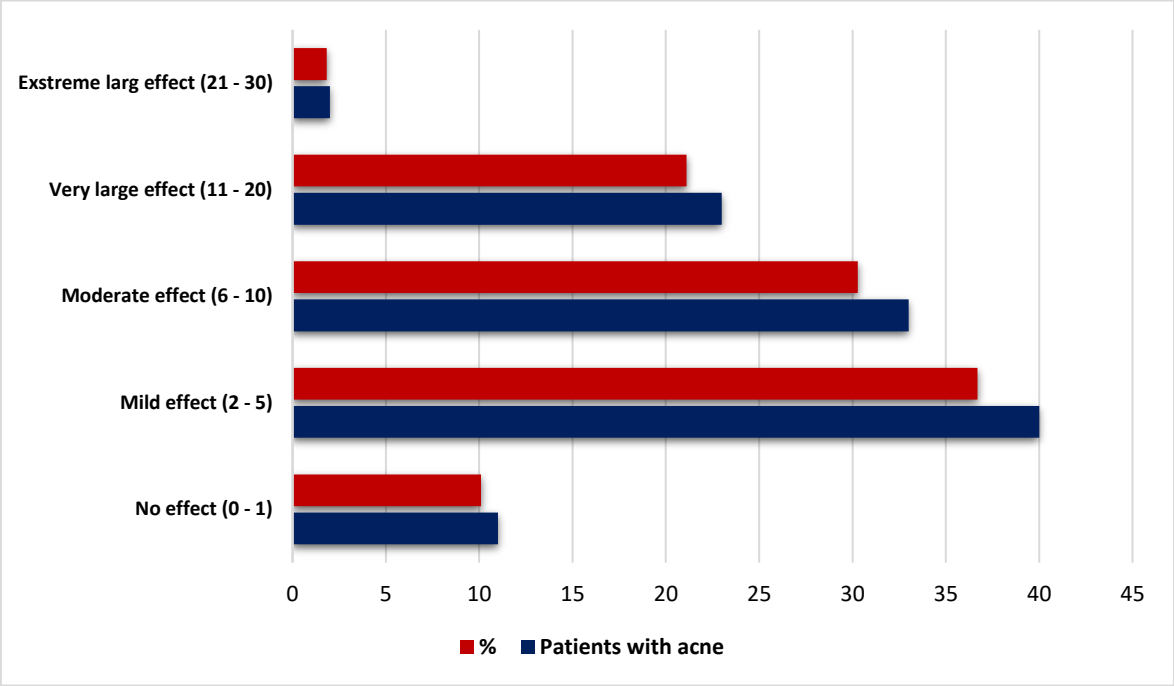

Figure 1. Evaluation Dermatology Life Quality Index Of Patients Acne.

According to the results of Figure 1, this Figure showed the severity of acne had a mild effect on health quality – life which got 36.7%, and moderate with 30.28% of total patients.

Table 4. Identification Of Risk Factors Influenced On Patients Suffered Of Acne.

Risk factors	OR	CI % 95
Age	2.10	0.60 – 4.44
Females	1.90	0.42 – 5.10
Period of acne	3.38	1.80 – 5.06
Diet	1.55	0.76 – 4.80
Genetic factor	3.18	2.44 – 6.91
Severity of Allergic	2.91	1.02 – 4.60
Post-acne hyperpigmentation	1.11	0.20 – 2.88
Acne scar	2.50	1.0 – 3.29
Severity of acne	4.54	4.06 – 6.55
Medications used	3.71	2.90 – 7.22

4. Discussion

Acne lesions can last into one's thirties and forties, beginning around the age of fifteen. 69.72% of the total patients in the study were 20 years of age or older. According to a British study, the average age of people aged 11 to 19 was 15.77.

Acne severity increases with age, affecting quality of life. One explanation may be that beauty is extremely important in late adolescence and early adulthood because peer and romantic connections play a significant part [20].

51.38% of the participants in this study were female, which was consistent with prior studies. This study found a gender difference of DLQI scores, with females suffering higher levels in social and emotional acne than boys. Nevertheless, a study conducted in the Netherlands [21] revealed a similar outcome, indicating that both genders felt self-conscious about their looks and acne. This contrasted with other studies that showed that women scored higher on the DLQI.

Acne on the face alone represented 63.30% of cases, whereas the study found no association among acne sites along with DLQI stages. In accordance with a Spanish study [22], facial acne was the most prevalent (97.4%); there was no discernible correlation between the location of acne and quality of life. This ran counter to earlier studies [23], [24], which indicated an adverse association among face acne severity along with poor quality of life.

One significant concurrent event linked to the onset of acne is increased sebum production. According to a few studies [24], [25], [26], two-thirds of people with acne have oily skin. 70.64% of participants in this study had oily skin, as there was a correlation between oiliness and acne severity.

In contrast to the Italy study, which found that comedones were the most prevalent, our investigation found that the highest incidence for grade II acne was 70.64 %.

This study found a significant correlation ($P < 0.001$) between DLQI scores and acne grade, which was similar to studies conducted in Italy [27], Iran [28], Turkey [29], as well as France [30]. Very few earlier research showed no such correlation.

Although other studies claimed 40.2% and 25% of patients having acne scars, a study conducted in Germany [31] found 90.8% of patients had acne scars, and the researchers concluded that acne scars adversely affected the patient's quality of life. In the present study, 45.87% of the participants had severe scars from acne.

Acne vulgaris often results in postinflammatory hyperpigmentation, especially in those with pigmented skin. Compared to previous studies [32], [33], a slightly larger proportion of 75.23% of patients had post-acne pigmentation. In this study, there was a statistically significant correlation among post-acne hyperpigmentation and DLQI scores.

This study's mean DLQI score indicated a 21.10% impairment. In an American study [34], the mean DLQI ranged among 1.7 to 8.95. It is interesting to note that a small percentage of patients having grade II acne and a small proportion of cases with light scars had higher DLQI scores. This suggests that even mild acne, as well as scars, can be cosmetic problems in some patients, lowering their quality of life.

5. Conclusion

This study found that acne sufferers' quality of life was significantly impaired. QoL decreased with increasing age, longer duration of illness, the severity of acne, as well as acne scars, especially a history of post-acne hyperpigmentation. Few people who had low-grade acne and minor scarring had higher DLQI ratings, suggesting that even moderate acne might cause psychological morbidity.

REFERENCES

[1] A. M. Layton, "Disorders of sebaceous glands," in *Rook's Textbook of Dermatology*, 8th ed., vol. 42, T. Burns, S. Breathnach, N. Cox, and C. Griffiths, Eds. Oxford: Wiley-Blackwell, 2010, pp. 1–89.

[2] J. Lello, A. Pearl, B. Arroll, J. Yallop, and N. M. Birchall, "Prevalence of acne vulgaris in Auckland senior high school students," *N. Z. Med. J.*, vol. 108, pp. 287–289, 1995.

[3] K. Kulthanan, S. Jiamton, and R. Kittisarapong, "Dermatology Life Quality Index in Thai patients with acne," *Siriraj Med. J.*, vol. 59, pp. 3–7, 2007.

[4] S. Shuster, G. H. Fisher, E. Harris, and D. Binnell, "The effect of skin disease on self-image," *Br. J. Dermatol.*, vol. 99, Suppl. 16, pp. 18–19, 1978.

[5] S. Aktan, E. Ozmen, and B. Sanli, "Anxiety, depression, and nature of acne vulgaris in adolescents," *Int. J. Dermatol.*, vol. 39, pp. 354–357, 2000.

[6] P. Saitta and S. K. Grekin, "A Four-question Approach to Determining the Impact of Acne Treatment on Quality of Life," *J. Clin. Aesthet. Dermatol.*, vol. 5, pp. 51–57, 2012.

[7] The World Health Organization Quality of Life Assessment (WHOQOL), "Position paper from the World Health," *Soc. Sci. Med.*, vol. 41, pp. 1403–1409, 1995.

[8] A. Y. Finlay and G. K. Khan, "Dermatology Life Quality Index (DLQI) – A simple, practical measure for routine clinical use," *Clin. Exp. Dermatol.*, vol. 19, pp. 210–216, 1994.

[9] L. E. Barnes, M. M. Levender, A. B. Fleischer Jr., and S. R. Feldman, "Quality of life measures for acne patients," *Dermatol. Clin.*, vol. 30, pp. 293–300, 2012.

[10] S. R. Rapp, S. R. Feldman, G. Graham, A. B. Fleischer, G. Brenes, and M. Dailey, "The Acne Quality of Life Index (Acne-QOLI): Development and validation of a brief instrument," *Am. J. Clin. Dermatol.*, vol. 7, pp. 185–192, 2006.

[11] D. A. Rapp et al., "Anger and acne: Implications for quality of life, patient satisfaction, and clinical care," *Br. J. Dermatol.*, vol. 151, pp. 183–189, 2004.

[12] N. Walker and M. S. Lewis-Jones, "Quality of life and acne in Scottish adolescent school children: Use of the Children's Dermatology Life Quality Index (CDLQI) and the Cardiff Acne Disability Index (CADI)," *J. Eur. Acad. Dermatol. Venereol.*, vol. 20, pp. 45–50, 2006.

[13] M. Jones-Caballero, M. M. Chren, B. Soler, E. Pedrosa, and P. F. Peñas, "Quality of life in mild to moderate acne: Relationship to clinical severity and factors influencing change with treatment," *J. Eur. Acad. Dermatol. Venereol.*, vol. 21, pp. 219–226, 2007.

[14] C. D. S. Tejada et al., "Impact on the quality of life of dermatological patients in southern Brazil," *A. Bras. Dermatol.*, vol. 86, pp. 1113–1121, 2011.

[15] S. Aghaei, N. Mazharinia, P. Jafari, and Z. Abbasfard, "The Persian version of the Cardiff acne disability index: Reliability and validity study," *Saudi Med. J.*, vol. 27, pp. 80–82, 2006.

[16] A. Hanisah, K. Omar, and S. A. Shah, "Prevalence of acne and its impact on the quality of life in school-aged adolescents in Malaysia," *J. Prim. Health Care*, vol. 1, pp. 20–25, 2009.

[17] E. Tasoula et al., "The impact of acne vulgaris on quality of life and psychic health in young adolescents in Greece," *A. Bras. Dermatol.*, vol. 87, pp. 862–869, 2012.

[18] B. Adityan, R. Kumari, and D. M. Thappa, "Scoring systems in acne vulgaris," *Indian J. Dermatol. Venereol. Leprol.*, vol. 75, pp. 323–326, 2009.

[19] P. C. Durai and D. G. Nair, "Acne vulgaris and quality of life among young adults in South India," *Indian J. Dermatol.*, vol. 60, pp. 33–40, 2015.

[20] S. Jankovic et al., "Quality of life among school children with acne: Results of a cross-sectional study," *Indian J. Dermatol. Venereol. Leprol.*, vol. 78, pp. 454–458, 2012.

[21] K. H. Ismail and K. B. Mohammed-Ali, "Quality of life in patients with acne in Erbil city," *Health Qual. Life Outcomes*, vol. 10, p. 60, 2012.

[22] R. J. Lasek and M. M. Chren, "Acne vulgaris and the quality of life of adult dermatology patients," *Arch. Dermatol.*, vol. 134, pp. 454–458, 1998.

[23] J. A. Cotterill and W. J. Cunliffe, "Suicide in dermatological patients," *Br. J. Dermatol.*, vol. 137, pp. 246–250, 1997.

[24] J. A. Halvorsen et al., "Suicidal ideation, mental health problems, and social impairment are increased in adolescents with acne," *J. Invest. Dermatol.*, vol. 131, pp. 363–370, 2011.

[25] H. Samanthula and M. Kodali, "Acne and quality of life – A study from a tertiary care centre in South India," *J. Dent. Med. Sci.*, vol. 6, pp. 59–63, 2013.

[26] A. R. Martin et al., "Health-related quality of life among patients with facial acne-assessment of a new acne-specific questionnaire," *Clin. Exp. Dermatol.*, vol. 26, pp. 380–385, 2001.

[27] J. Hassan et al., "The individual health burden of acne: Appearance-related distress in male and female adolescents and adults," *J. Health Psychol.*, vol. 14, pp. 1105–1118, 2009.

[28] M. S. Salek, G. K. Khan, and A. Y. Finlay, "Questionnaire techniques in assessing acne handicap: Reliability and validity study," *Qual. Life Res.*, vol. 5, pp. 131–138, 1996.

[29] M. A. Gupta and A. K. Gupta, "Psychiatric and psychological co-morbidity in patients with dermatologic disorders," *Am. J. Clin. Dermatol.*, vol. 4, pp. 833–842, 2003.

[30] A. Kane et al., "Epidemiological, clinical and therapeutic features of acne in Darker, Senegal," *Int. J. Dermatol.*, vol. 46, pp. 36–38, 2007.

[31] M. Kilkenny et al., "The prevalence of common skin conditions in Australian school students: 3. acne vulgaris," *Br. J. Dermatol.*, vol. 139, pp. 840–845, 1998.

[32] N. Hayashi, Y. Miyachi, and M. Kawashima, "Prevalence of scars and mini scars in Japanese patients with acne," *J. Dermatol.*, vol. 42, pp. 690–696, 2015.

[33] N. B. Simpson and W. J. Cunliffe, "Disorders of sebaceous glands," *Rook's Textbook of Dermatology*, 7th ed., vol. 42, Oxford: Blackwell, 2004, pp. 43.1–43.75.

[34] C. K. Yeung et al., "A community-based epidemiological study of acne vulgaris in Hong Kong adolescents," *Acta Derm. Venereol.*, vol. 82, pp. 104–107, 2002.