

# AI-ADL: A RELEVANT TOOL FOR ASSESSING THE BURDEN OF ADULT ACNE

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## INTRODUCTION

For decades, acne has been considered as a skin condition that mainly affects adolescents. However, it may persist into or even start in adulthood, with a 60% prevalence of acne reported in women aged 20–29 years (1, 2). It is not only a chronic and potentially disfiguring condition, but acne also impacts the patient's and cohabitant's quality of life (QoL) (1, 3-5). This impact includes signs and symptoms of depression, anxiety and anger, as well as poor sleep quality and low self-esteem. The importance of its psychological impact has been shown to be linked with the severity of the condition, being somewhat more important in female than in male subjects. Recently, a novel burden questionnaire (**Impact of acne on the daily life of adults : AI-ADL**) was developed to assess the burden of acne in adult patients (14). Its short format allows the patient to express their perception of their acne easily and quickly, and to facilitate exchanges between practitioner and patient.

## OBJECTIVE

This questionnaire was created and validated using a small patient population and the study aimed to validate the AI-ADL questionnaire using a large patient population.

## MATERIAL & METHODS

In order to assess the burden of acne in adults and older teenagers, a digital questionnaire was administered to an adult population recruited via Internet, whose acne was confirmed by a doctor. The severity was assessed by the patient according to an algorithm used in previous studies (Wolkeinstein P, Dermatology, 2015). The burden of disease and quality of life was assessed through the burden acne adult questionnaire (AI-ADL), the mental (MCS12) and physical (PCS12) parts of the short form health survey 12, a Stress VAS, Well-being 12 (WBQ12) and Dermatology Life Quality Index (DLQI). Each score was expressed in a percentage of its total. To assess which scores differed among the severity levels, we performed a Kruskal Wallis comparison.

## RESULTS

1002 respondents aged 18 and over, sex ratio in favour of women [72%, n = 723], median age of 32 IQR [23, 41]. 3 severity groups identified: 75.7% identified as mild [n = 759], 14.0% identified as moderate [n = 140], 10.3% identified as severe [n = 103]. In men, the distribution between the 3 groups are respectively: 78.1%, 9.0% and 12.9%; among women the distribution is 74.8%; 15.9% and 9.3% (p-value = 0.006). Median PCS12 was 49.7% IQR [44.3, 54.1], median MCS12 44.7% IQR [40,0 48.8], Stress VAS was 60% IQR [40, 70], DLQI 16.7% IQR [6.7, 36.7], AI-ADL was 34.3% IQR [12.9, 54.3]. AI-ADL and DLQI scores were statistically different for different severity levels (p< 0.001) with a respective median for light, moderate and severe acne of 30% IQR[10-48.6], 42.1% IQR[28.6-58.9] and 50% IQR[30-70] for AI-ADL and 13.3% IQR[6.7-33.3], 26.7% IQR[13.3-40.8] and 30% IQR[13.3-50] for DLQI. Scores were not statistically different for PCS12 (p = 0.669) and were statistically different for MCS12 (p = 0.019), Stress VAS (p = 0.03) and WBQ12 (p = 0.015) but with low or disordered difference in medians. There was no difference for patients above or under 25 years old.

## DISCUSSION & CONCLUSION

According to our results, AI-ADL may help us to understand the patient's burden of acne better, to involve the patient in the management of his or her condition, and to allow the practitioner to choose the most suitable treatment together with the patient. In our cohort, non-specific quality of life and well-being scores were not discriminant in the adult acne population. However, with a specific burden score, we were able to measure an important variation between acne severity types, thereby suggesting the importance of this specific tool to evaluate treatment efficiency. This tool could be used in clinical trials to complement acne severity evaluation and patient's QoL assessment.

## REFERENCES

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