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To study of acne vulgaris and the quality of life of adult dermatological patients in urban area

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Abstract

Background: Although acne is a common disorder, only a limited number of research have focused specifically on individuals with acne vulgaris. To assess the impact of acne vulgaris on the quality of life of adult dermatology patients.

Material and Methods: The study employs a cross-sectional and longitudinal questionnaire survey. The study was carried out in the Department of Dermatology, Sambhram Institute of Medical Sciences, located in Kolar, Karnataka, India. The investigation was conducted from January 2018 to December 2019. There are approximately 80 individuals with acne vulgaris who are attending appointments with the doctors. Results were obtained using a standardized instrument to measure the impact of skin disorders on persons' quality of life. The findings are presented as a cumulative score and three ratings on a scale.

Results: Individuals with a tendency to develop acne exhibited similar functional and emotional effects as patients with psoriasis, although with less severe symptoms and a symptomatic score of 29.5 and 42.1, respectively. Individuals over the age of 40 are the least likely to acquire acne and have improvement after a period of three months. Additionally, they have higher Skindex ratings. After adjusting for gender and the severity of acne as determined by dermatologists, older individuals reported a more significant influence of acne on individuals' way of life compared to younger participants.

Conclusions: Based on the aforementioned study, it can be inferred that acne vulgaris has a detrimental effect on the quality of life of those affected. The elderly population has experienced a greater impact from acne, regardless of its severity.

Keywords: Skindex, life quality, demographic parameter, and vulgaris acne

Introduction

Acne vulgaris is a chronic condition characterized by the presence of papules, pustules, nodules, and pilosebaceous comedones. Acne vulgaris may manifest in older individuals, but it often initiates during adolescence and diminishes by the mid-20s. It appears to have an effect on more than 85% of adolescents [1, 2]. Acne vulgaris is the prevailing dermatological condition seen by individuals. It is more prevalent and severe in males. Acne vulgaris mainly impacts the face, although it can also sporadically afflict the torso, back, and shoulders. Several factors contribute to its pathogenesis [3, 4].

There are several clinical presentations of it, ranging from a mild case of microcomedones to a severe case of drained sinus. While adolescence itself is not a life-threatening condition, its widespread occurrence leads to a multitude of psychological and emotional problems. Adults are negatively affected by their acne vulgaris, regardless of the extent of their acne. Prior study has examined the correlation between acne vulgaris and psychological factors such as anxiety, depression, emotions, body dissatisfaction, and self-esteem. The presence of cheloidal scar formations and post-inflammatory hyperpigmentations leads to psychological problems and has a detrimental effect on the quality of life of patients [4-6].

Multiple studies have recorded the possible influence of acne vulgaris on the quality of life of patients, as well as other persistent illnesses such as asthma and epilepsy. One's quality of life might serve as an indicator of their state of wellbeing. It is essential to offer healthcare services in the fields of rehabilitation and preventative medicine. Chronic diseases, visible infirmities, and lack of hope for disease improvement have a more negative influence on the quality of life. Consequently, those with acne vulgaris are likely to experience more pronounced inverse effects. Research has shown that the severity of a patient's acne vulgaris

is not directly related to their quality of life [5-7].

Instead, the positive effects of treatment on clinical changes may improve their quality of life. Individuals diagnosed with vulgaris may encounter profound emotional and social ramifications [6-8]. It can induce or exacerbate depression, suicidal ideation, and diminished self-worth, erroneous perception of one's body, social seclusion, and inadequate self-assurance.

Given that the intensity of acne does not consistently correspond to these adverse consequences, it is crucial to assess the psychological ramifications for each individual patient.

Although many studies have investigated the correlation between clinical features and quality of life using similar assessments, only a limited number have explored the influence of acne vulgaris treatment on quality of life [7-9]. The present study investigated the impact of clinical severity, sexual orientation, and pre- and post-treatment assessments on the quality of life of individuals with acne vulgaris.

Materials and Methods

A cross-sectional and a longitudinal survey are both employed in the study. The dermatology department at India's Sambhram Institute of Medical Sciences in Kolar, Karnataka, was the site of the research. From January 2018 to December 2019, researchers carried out this investigation. Along with the doctors, over 80 patients suffering from acne vulgaris are present throughout the appointments. Findings from a standardized instrument used to evaluate the impact of skin disorders on the quality of life of persons. A total score and three scale ratings are used to report the findings.

Inclusion Criteria

- Every adult receiving care at three dermatology clinics
- People whose primary ailment is acne vulgaris

Exclusion Criteria

Individuals who are older than 55.

Results

Table 1: Clinical and sociodemographic information from eighty patients with acne vulgaris

Characteristics	Number
Sex	
women	52
Men	28
Age	
17-19	15
20-29	20
30-39	22
40-49	10
50-53	11
Race	
White	70
Black	09
Other	04
Health self-assessment	
Poor	0
Fair	10
Good	12
Very good	32
Excellent	25
Duration of acne	
<1 month	2
1-3 month	9
4-11 month	15
1-2 year	12
>2 year	40
Dermatologist's severity score	
Skin disease absent	0
Minimal	10
Mild	28
Moderate	22
Severe	20
Extremely severe	0

Skindex quantifies the impact of skin diseases on patients' quality of life. A total of fewer than 70 instances of acne periods and dermatologist severity levels were documented. Acne vulgaris impacted individuals between the ages of 17 and 53. The majority of patients, specifically 87%, were of

Caucasian ethnicity. The majority of patients exhibited robust or outstanding health. 98% of the participants experienced acne for a duration of 2 years. The majority exhibited mild to moderate acne. Both men and women evaluated acne with equal measure.

Table 2: Responses from participants to the question

Categorised Reply's	Number
Appearance	30
Symptoms	12
Recurrence	10
Acne in general	10
Acne as an adult	5
Effect on image	3
Annoying	3
Treatment	3
Other	4

A total of 72 individuals were diagnosed with acne. 35% of patients were troubled by the manifestation of their skin problem. When inquired about their physical appearance, 30% to 39% of the population provided responses. In comparison, the age groups of 17 to 19, 20 to 29, 40 to 49, and 50 to 53 had response rates of 32%, 32%, 15%, and 32% respectively. The presence of "adult acne" in 7 patients was not correlated with the clinical assessment of the dermatologist.

Table 3: Individuals suffering from acne vulgaris and its associated skindex score

Age	Functioning	Emotions	Symptoms
17-19	11±12	24±15	15±81
20-29	11±13	41±30	31±18
30-39	14±14	44±26	32±16
40-49	20±15	39±15	30±20
50-53	31±40	57±41	50±36

Acne has an equal impact on both men and women, however older individuals tend to experience better outcomes. Individuals with severe acne had correlations of $r=0.32$, $r=0.35$, and $r=0.22$ between their functioning, emotions, and symptoms as measured by the Skindex scale. The Skindex markings in a model that considered sex, age, and acne severity showed a correlation with age and acne severity. In this particular situation, the growth rate of Skindex was 22% every decade and 29% per severity grade.

Table 4: Skindex scores for adults who are younger and older

Age	Functionality	Emotions	Symptoms
<40	11±10	32±32	32±20
≥40	28±40	46±40	40±40

After three months, the skin of forty-three patients had improved. Out of seven, five individuals over 40 felt their skin was the same or worse, compared to 18% of those in younger age groups. In all three dimensions, older people indicated greater impacts on their quality of life.

Discussion

Recently, tools to measure a patient's level of distress in relation to their quality of life have been developed. An evaluation was conducted on the survey responses of persons suffering from acne vulgaris and other skin issues to determine their quality of life. We have shown that acne significantly impacts the quality of life of patients. The inquiry yielded three primary discoveries. At first, people with acne vulgaris experienced significant negative effects associated to their skin condition, similar to those with other skin problems that have a significant impact on their quality of life. Furthermore, elderly individuals with acne vulgaris

experienced significantly lower quality of life [9-11].

This study is crucial because it confirms the widely known belief that younger patients are more susceptible to the psychological effects of acne. Furthermore, when comparing older individuals to younger participants, it was shown that older people did not see any improvement in their acne condition. Additionally, older participants had a more significant negative effect on their overall lifestyle. The conclusions are strengthened by utilizing data collected three months after starting medication. The results of our study align with the notion that acne vulgaris has a negative impact on the overall well-being of patients, especially among older individuals [10-12].

The limited sample size of 80 patients in our study is a methodological challenge as it diminishes the generalizability of our findings and hampers our capacity to detect significant changes in relevant subgroups. However, given the wide age range of our responses, any age projections are likely to be accurate. In order to enable comparisons, we further calculated the mean value across many Skindex scales and provided a composite score. Although the numerous categories are given equal importance, the score fails to accurately represent the severity of certain physical and psychosocial symptoms linked to skin disease. However, a range of equipment has been utilized using similar methods. The clinical severity of acne is assessed using a 5-point grading system devised by dermatologists; however, these evaluations have not been independently verified [11-13].

Further investigation with larger cohorts and increased sample sizes is necessary to validate our results. A previous study shown that adult acne has a significant impact on various aspects of individuals' lives, such as their professional pursuits, social engagements, and overall body contentment. Cunliffe, for instance, found that among a group of 1250 participants, individuals with acne had a 7% higher unemployment rate. As someone grows older, the influence of acne on their quality of life may also change [14-16]. In a particular study, 34 individuals who had previously had acne were administered isotretinoin treatment, regardless of their lower scores on social assertiveness and social judgment tests compared to younger participants. Salek *et al.* conducted a study on acne and quality of life in individuals aged 15 to 45. Their findings indicate that there is no correlation between age and the Acne Disability Index. Although they may appear similar, the Acne Disability Index and the Skindex are distinct measures. As an illustration, the Acne Disability Index assesses the level of challenge in maintaining skin health and the expenses associated with treating acne [17-19].

We surveyed younger individuals to determine their primary concerns regarding acne. We categorized their comments by age, as adults are generally more knowledgeable and capable of discussing the implications of this condition in a more comprehensive manner. Based on prior research and feedback from individuals affected by acne, the majority of participants in our study expressed discontent with the appearance of their acne. The respondents who experienced the greatest difficulty with their physical appearance were specifically within the age bracket of 30 to 39 years old [18-20]. According to a hypothesis, teenagers who perceive that their classmates hold a favorable opinion of them are more prone to get acne before reaching the age of thirty. Conversely, individuals who experience acne after the age

of forty may have come to terms with their condition. Overall, these findings corroborate the hypothesis that an individual's response to acne is contingent upon their particular life phase [21-23].

Prior qualitative study indicates that the impact of acne on individuals' lives may be similar to that of other skin conditions that are commonly regarded as debilitating. A study examining the influence of skin disorders on self-perception found that individuals with eczema and psoriasis may experience a more pronounced adverse psycho-social effect compared to those with acne [22-24]. Skindex, a quantitative measure for persons with various skin conditions, enabled us to assess and evaluate the quality of life across multiple diagnostic categories. Individuals with psoriasis exhibited more pronounced symptoms and lower overall well-being. Conversely, individuals with acne displayed comparable emotional outcomes, albeit with small variations in their impact on their physical and social functioning. Both acne and psoriasis patients evaluated their overall quality of life and the condition of their skin in a comparable manner. This illustrates that those who suffer from acne share similarities with those who have other conditions in regards to their overall state of health or preoccupation with their skin [24-26].

Conclusion

This study adds to the growing body of evidence suggesting that severe acne, as defined by dermatologists, is connected with mental health issues like anxiety and has a far-reaching effect on patients' daily lives. However, other factors, including patient age and acne severity, significantly affect the extent to which acne lowers quality of life, as demonstrated by our multivariate model. Prior research had shown that patients' subjective assessments of the severity of their acne problems were more influential on their quality of life than the actual severity of the condition. Along with clinical severity assessments, evaluations of acne patients' quality of life can provide light on the condition's and treatments overall impact.

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None

Conflict of interest

None

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