

Impact of acne vulgaris on quality of life and psychopathological symptomatology among young adults

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Abstract *Background* Acne vulgaris is a physical problem but it significantly influences the quality of life and psychopathological symptomatology of individuals.

Methods The study comprised of 200 young adults. A hundred participants were with acne vulgaris and a hundred participants were without acne vulgaris. An equal number of men and women were given representation in the sample. The scales used to assess the variables of the study were WHO–Brief Quality of Life Scale and Depression, Stress, Anxiety Scale (DASS).

Results The level of depression and anxiety was significantly higher among the participants with acne vulgaris while quality of life appeared to be higher in participants without acne vulgaris.

Conclusion Acne vulgaris drastically influence the quality of life and increase the chances of psychological disturbances.

Key words

Depression, anxiety, young adults.

Introduction

In modern times, the number of diseases is increasing along with the increase in medical facilities. Young adults are most commonly prone to acne vulgaris. Acne vulgaris can be defined as observable, reddish, papules leaving behind residual blotches and pigmentation.¹ Previous studies emphasized that psychological impacts of acne vulgaris are scientifically proven.² The emotional challenges faced by the patients of acne vulgaris are increased level of depression, anxiety and frustration etc. Individuals with acne vulgaris feel that their appearance is not attractive due to which they

avoid social gatherings and feel loneliness.¹ The quality of life is the common welfare of individuals and societies which describes the positive and negative characteristics of life.³ A study suggested that acne vulgaris negatively affect the quality of life of individuals. The researches emphasized that prevalence of acne vulgaris has a negative impact on quality of life of individuals.⁴ Psychopathology symptomatology refers to the symptoms related to the mental disorders. According to American Psychological Association, psychopathology symptomatology typically includes depression, stress, anxiety, hallucinations, bipolar disorder and psychosis. Depression can be defined as a condition of low mood or having no interest in activities. There are many life events which lead towards depression such as childbirth, menopause, unemployment, loss of loved one

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and social rejection.⁶ Studies suggested that disturbances in daily life activities and depression are usually observed among the individuals who have complaints of acne vulgaris.² It is also said that people suffering from anxiety withdraw from the situations which cause anxiety in the past.⁷ The emotional symptoms of anxiety are found to be associated with physical features. Anxiety is usually caused because of poor coping skills and negative automatic thinking.⁹ Some medical problems like asthma, diabetes, cardiovascular disorders and degenerative disorders can also cause anxiety.⁸ A research demonstrated that individuals with acne vulgaris had high levels of depression and anxiety and individuals without acne vulgaris had low level of depression and anxiety.¹⁰ In the Pakistani collectivistic culture, people are more concerned about their acne due to the criticism of other people. Therefore the present study attempts to compare the level of quality of life and psychopathological symptomatology among the individuals with acne vulgaris and individuals without acne vulgaris.

Methods

Study design Cross sectional.

Duration October 2019 to January 2020.

Sample technique Purposive sampling technique.

Sample Size 200 subjects.

Inclusion Criteria Young adults with acne vulgaris ($n=100$) and young adults without acne vulgaris ($n=100$) were included in the study.

The sample of the study ($N=200$) comprised of young adults selected through purposive

sampling. Half of the sample ($n=100$) have acne vulgaris and half of the sample ($n=100$) were without acne vulgaris (age, 20-25, $M=22.2$, $SD=1.2$). Equal number of men and women were given representation in the sample. All the participants were unmarried and their qualification was at least graduation. The participants in this study have been personally contacted after ensuring that they have met criteria for participation in the study. The data was collected from individuals with acne vulgaris in DHQ Hospital Sargodha, DHQ Mandi Bahuddin and Bilal Medicare Sargodha. The data was also collected from individuals without acne vulgaris from Sargodha university. Informed consent was taken from the participants to fulfill the ethical requirements of the study. Then the Urdu translated version of WHO-Brief Quality of Life Scale and Depression, Stress, Anxiety Scale were applied to assess the level of quality of life, depression and anxiety of the participants.

The quality of life scale comprised of 26 items, was by developed by World Health Organization in 1985. This scale was translated in Urdu language by Khan and his colleagues in 2003.¹¹ The response rate ranges from 1 to 5 for each question, with high score depicting high quality of life. The Cronbach's alpha reliability of scale is 0.86. The Depression, Anxiety, Stress Scale is a 21-item questionnaire that was developed by Lovibond and Lovibond (1995). This scale was translated in Urdu by Aslam.¹² It includes three self-report scales designed to measure the negative emotional states of depression, anxiety and stress.¹³ In present study, subscales of anxiety and depression were used which consist of 7-items each. It is a 4-point Likert scale ranging from 1= never to 4= almost always. The reliability of the translated version of DASS is $\alpha=0.93$.

Table 1 Psychometric properties of study variables (n = 120).

| Variables | n | M | SD | α | Range | | Skewness | Kurtosis |
|----------------------|-----|-------|-------|-----|-----------|----------|----------|----------|
| | | | | | Potential | Actual | | |
| Quality of life | 120 | 82.17 | 17.36 | .96 | 24-120 | 51 - 111 | -.03 | -1.37 |
| Physical health | 120 | 24.22 | 5.30 | .89 | 7 - 35 | 13 -34 | -.82 | -.95 |
| Psychological health | 120 | 19.72 | 5.15 | .90 | 6 - 30 | 10 - 29 | .08 | -1.42 |
| Social relationship | 120 | 7.01 | 1.78 | .81 | 2 - 10 | 3 -10 | -.36 | -.49 |
| Environment | 120 | 24.14 | 4.80 | .86 | 7-35 | 15 -33 | .02 | -1.08 |
| Depression | 120 | 6.43 | 4.84 | .87 | 0 - 21 | 0 - 18 | .20 | -1.22 |
| Anxiety | 120 | 5.04 | 3.71 | .78 | 0 - 21 | 0 - 14 | .21 | -1.09 |

Table 2 Multivariate analysis of variables of present study (n=200).

| IVs | Multivariate analysis | | | | | |
|-----------------------|-----------------------|----------|-------|---------------------|-----|--|
| | Pillai's Trace | Wilk's λ | F | Part.η ² | p | |
| Acne vulgaris | .67 | .33 | 22.08 | .67 | .00 | |
| Gender× Acne vulgaris | .24 | .76 | 3.27 | .24 | .00 | |

Table 3 Univariate analysis of variance for demographics of the present study (n=200).

| Source | Dependent variable | SS | df | MS | F | Part.η ² |
|-----------------------|--------------------|---------|----|---------|-----------|---------------------|
| Acne vulgaris | Quality of life | 5303.42 | 1 | 5303.42 | 110.86*** | .55 |
| | Depression | 406.98 | 1 | 406.98 | 89.01*** | .59 |
| | Anxiety | 122.56 | 1 | 122.56 | 32.59*** | .26 |
| Gender× Acne vulgaris | Quality of life | 702.13 | 1 | 702.13 | 14.77*** | .14 |
| | Depression | 67.35 | 1 | 67.35 | 14.73*** | .14 |
| | Anxiety | 24.53 | 1 | 24.53 | 6.50** | .07 |

Note *p < .05, **p < 0.01, ***p < .05

Results

Table 1 shows the value of mean, standard deviation, alpha reliability, range and skewness of all the scales used in the current study.

Table 2 summarizes the findings of the multivariate analysis of variance. The results demonstrated that acne vulgaris was a significant demographic variable in relation to quality of life, depression, and anxiety. Table 2 demonstrates the significant two-way interactive effects of acne vulgaris with the gender on the study variables. Table 2 also reflects that there is no main effect of gender on study variables.

Table 3 presents the univariate analysis of variance for the demographics of the present study. Analysis revealed that Acne vulgaris appeared to significantly influence all the dependent variables. Moreover, results revealed

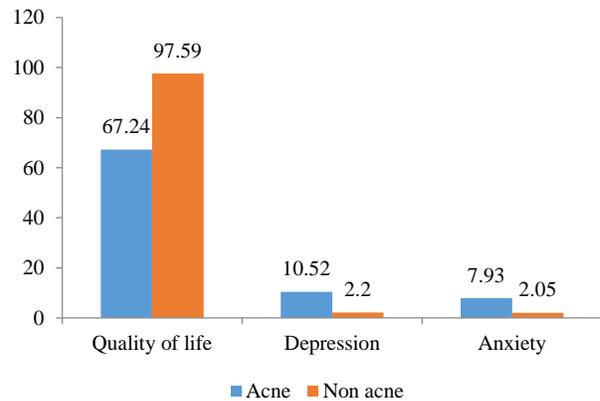


Figure 1 Impact of acne vulgaris on quality of life, depression and anxiety.

two-way interactive effect of gender and acne vulgaris on all the variables of the study.

Figure 1 represents that level of quality of life is significantly high among participants without acne while depression and anxiety appeared as significantly higher among patients with acne.

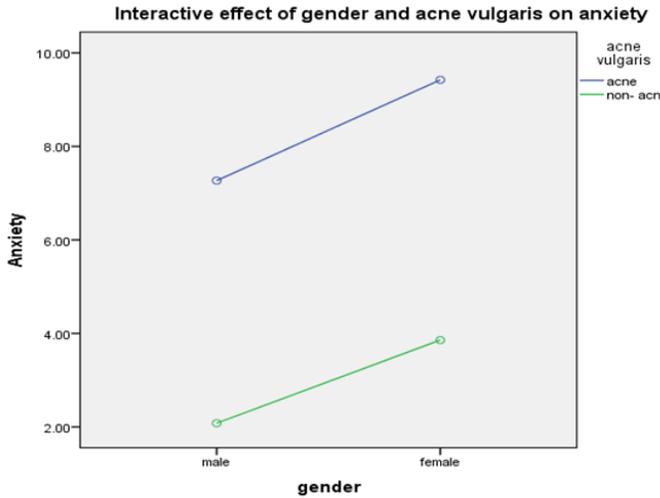


Figure 2 Interactive effect of gender and acne vulgaris on quality of life.

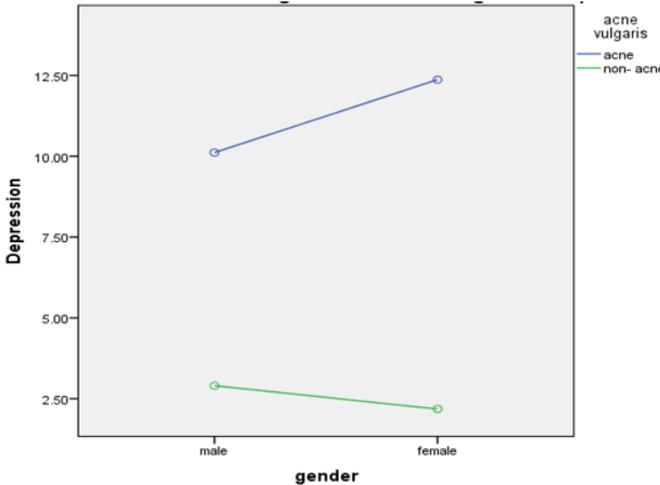


Figure 3 Interactive effect of gender and acne vulgaris on depression.

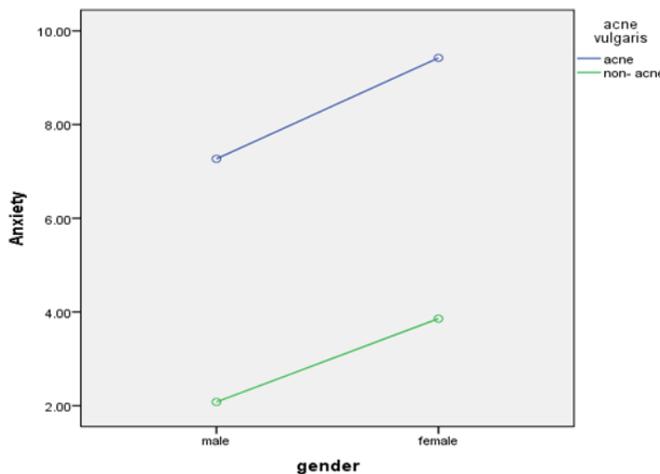


Figure 4 Interactive effect of gender and acne vulgaris on anxiety.

Figure 2 depicted females with acne vulgaris have low level of quality of life as compared to the males with acne vulgaris.

Figure 3 showed that the females with acne vulgaris have high level of depression as compared to the males with acne vulgaris.

Figure 4 also represented that females with acne vulgaris have high level of anxiety as compared to the males with acne vulgaris.

Discussion

Acne vulgaris is one of the most common skin diseases. To study the impact of acne vulgaris on the young adults was the main purpose of current study. Analysis of data showed that quality of life is found to be higher among individuals with acne as compared to the individuals without acne vulgaris (**Table 3**). Previous researchers also showed that the level of quality of life was lower among the individuals with acne vulgaris as compared to the individuals without acne vulgaris.¹⁴ The results of the study demonstrated that individuals without acne vulgaris would have low level of psychopathological symptomatology as compared to individuals with acne vulgaris. In line with the findings of the current study, previous research demonstrated that individuals with acne vulgaris have high level of depression and anxiety as compared to individuals without acne vulgaris.¹⁰ Individuals with acne vulgaris have to face more emotional challenges as compared to the individuals without acne vulgaris. The results of the study demonstrated that females with acne vulgaris have low level of quality of life and higher level of depression and anxiety as compared to the males with acne vulgaris. Previous research demonstrated that females are usually more conscious about their looks, body image etc. so they are more affected because of

acne vulgaris as compared to the males. In our culture, females with acne vulgaris are considered less attractive and acne vulgaris is the main hurdle when females are getting married. In our society, females have to face more adverse situations because of acne vulgaris as compared to the males, so females with acne vulgaris have low level of quality of life, depression and anxiety as compared to the males with acne vulgaris.¹⁵

Limitations

The generalizability is low because study is conducted on small sample. Self-reported measures were used due to which social desirability can affect the results of the study.

Suggestions/ Recommendations

The study should be conducted on a larger scale to increase the external validity. The qualitative research can also be used instead of quantitative study to get information about the impact of acne vulgaris among young adults. Random sampling technique can also be used to ensure the representation of the population in the sample.

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