

# Differences in Self-Esteem and Self-Confidence Among Adolescents with Acne Vulgaris by Gender

Shally Ayu Chintya\*, Siti Khomsatin, Luluk Faridatul Mukaromah

Akademi Komunitas Darussalam

Corresponding author: [ayuchintyashally@gmail.com](mailto:ayuchintyashally@gmail.com)

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## ABSTRACT

Acne vulgaris is a common inflammatory skin condition among adolescents that can affect psychological aspects, particularly self-esteem and self-confidence, due to changes in physical appearance. This study aims to determine differences in self-esteem and self-confidence among adolescents with acne vulgaris based on gender. This study employed a quantitative design with a cross-sectional approach. The sample consisted of 90 adolescents, including 37 males and 53 females, selected using purposive sampling. Data were analyzed using the Mann–Whitney U test because they were not normally distributed. The results showed no significant difference in self-esteem between male and female adolescents ( $p = 0.434$ ). However, there was a significant difference in self-confidence ( $p = 0.009$ ), with female adolescents exhibiting higher levels of self-confidence compared to males. In conclusion, gender does not affect self-esteem but does influence self-confidence among adolescents with acne vulgaris.

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## I. Introduction

Acne vulgaris is a common skin condition that poses significant challenges in clinical management. It is an inflammatory disorder that affects the face, upper arms, trunk, and back, and is typically characterized by the presence of comedones, pustules, papules, or nodules (Bahar et al., 2026; Chandra et al., 2025). Acne vulgaris develops through several underlying processes, including increased oil (sebum) secretion, abnormal buildup of creatin within hair follicles, growth of cutibacterium acnes and inflammatory reactions in the skin (Cowan, 2026; Ravenscroft et al., 2022). Additionally, genetic and environmental factors also play a role in the pathophysiology of acne vulgaris (Kaikati et al., 2021). Although acne often improves with age, it can lead to secondary changes such as erythematous macules, hyperpigmentation, and even permanent scarring, which may affect an individual's physical appearance (Ravenscroft et al., 2022).

Acne is estimated to affect approximately 9.4% of the global population, making acne vulgaris one of the most prevalent skin disorders and the eight most common dermatological disease worldwide (Morshed et al., 2023). Acne vulgaris commonly occurs in adolescents, preteens, young adults, and adults (Reynolds et al., 2024). Particularly between the ages of 12 and 24, with women being affected more frequently than men (Cowan, 2026). Approximately 85% of cases occur in adolescents and young adults, with some persisting into adulthood, where the prevalence reaches 12% among adult women (Kaikati et al., 2021). Among affected individuals, approximately 15%-20% experience moderate to severe forms of acne, which may result in permanent scarring (Khan & Chang, 2022). This condition makes acne vulgaris not only a dermatological issue but also a psychological one, as it can affect a person's quality of life, leading to anxiety, depression, and reduced self-confidence (Rocha et al., 2024).

Both mild and severe acne can have psychological effects, leading to reduced self-esteem and self-confidence in those affected (Chandra et al., 2025; Meliala & Lubis, 2020). Acne vulgaris can also cause permanent changes to the face and negatively impact the self-confidence and mental health of those affected (McNeil et al., 2023). This condition is commonly experienced by adolescents during periods of



physical change and can have negative consequences; thus, the presence of acne, scars, or resulting hyperpigmentation can reduce satisfaction with appearance, self-esteem, and self-confidence, and may lead to anxiety and even depression (Layton & Ravenscroft, 2023; Samuels et al., 2020).

Women tend to be more vulnerable to the psychological impacts of acne vulgaris compared to men. These impacts include anxiety, depression, reduced self-esteem, interpersonal relationship difficulties, and a tendency to withdraw from social interactions (Morshed et al., 2023). This condition also reduces adolescents' self-confidence, causing them to feel less capable of interacting with others and adapting to their surroundings (Mujahidah et al., 2023).

Research conducted by Chintya et al., (2026) indicates that acne has a direct influence on self-esteem ( $p = 0.001$ ), self-confidence ( $p = 0.045$ ), and body image ( $p = 0.042$ ). Similarly, Aryani & Riyaningrum, (2022) found that acne vulgaris has a significant association with self-confidence, with a  $p$ -value of 0.001. These findings indicate that acne vulgaris is closely linked to adolescents' psychological well-being. However, most previous studies have primarily focused on the relationship between acne vulgaris and self-esteem, body image, and general self-confidence, while research comparing self-esteem and self-confidence based on gender remains limited, particularly among adolescents in boarding school environments. The Islamic boarding school environment has distinctive social characteristics, such as more intense social interactions, strong group dynamics, and strict discipline, which can influence adolescents' self-perceptions of their physical appearance. This context suggests that acne vulgaris may have different psychological impacts compared to those experienced by adolescents in more general settings.

Based on the above discussion, research on the differences in self-esteem and self-confidence among adolescents with acne vulgaris by gender in Islamic boarding school environments is still needed, given the limited research specifically examining these aspects. This study aims to determine the differences in self-esteem and self-confidence among adolescents with acne vulgaris by gender in Islamic boarding school environments.

## II. Methods

This research employed a quantitative method using a cross-sectional design. The population consisted of adolescents age 14-24 years with acne vulgaris residing in the Darussalam Islamic Boarding School area in Banyuwangi Regency. The respondents were selected using a purposive sampling approach, as the study specifically targeted adolescents with acne vulgaris who met the inclusion criteria. The inclusion criteria were adolescents aged 14-24 years with acne vulgaris, willing to participate in the study, and able to complete the questionnaire independently. A total of 90 participants were included in the study, comprising 37 males and 53 females. The variables in this study included the independent variable, gender (male and female), and dependent variable, self-esteem and self-confidence. Data were collected using the RSES (Rosenberg self-esteem scale) questionnaire to measure self-esteem and the GSES (General Self-Efficacy Scale) to measure self-confidence. The Indonesian versions of both instruments were used, and both demonstrated satisfactory validity and reliability, with Cronbach's alpha values above 0.70. In this study, self-confidence was assessed using the GSES because self-efficacy reflects an individual's belief in their ability to manage situations and complete tasks effectively, which is closely associated with self-confidence. Univariate analysis was performed to describe the characteristics of the study variables, while bivariate analysis was conducted to determine the relationships between variables using the Mann-Whitney U test. Ethical consideration included informed consent, anonymity, confidentiality, and ethical approval. Ethical approval was granted by the Research Ethics Committee of Dr. Moewardi General Hospital, Surakarta, with approval number 2.062/IX/HREC/2025.

## III. Results

Data collection has been completed, and the following results were obtained: Table 1 shows the characteristics of the respondents. The self-confidence variable showed a mean score of 30.12, a standard deviation of 6.1880, ranging from 17 to 49. The self-esteem variable, the mean was 27.96, with a standard deviation of 4.316, while the scores ranged between 18 and 41. In terms of age, the respondents had an average age of 17.83, with standard deviation of 2.418, and the ages varied

from 14 to 28.

Table 1. Sample Characteristics

Variable	Mean	Std. deviation	Minimum	Maximum
Self-confidence	30.12	6.180	17	49
Self-esteem	27.96	4.316	18	41
Age	17.83	2.418	14	24

The results of the descriptive analysis in Table 2 show that the majority of respondents were female (53, 58.9%), while males accounted for 37 (41.1%). Regarding the self-esteem variable, most respondents fell into the low category (54, 60%), while the remainder were in the high category (36, 40%). Meanwhile, for the self-confidence variable, 46 respondents (51.1%) were in the low category, and 44 (48.9%) were in the high category.

Table 2. Sample characteristics and frequencies

Variable	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	37	41.1
Female	53	58.9
<b>Self-esteem</b>		
Low	54	60
High	36	40
<b>Self-confidence</b>		
Low	46	51.1
High	44	48.9

In this study, a normality test was conducted. As presented in table 3, the Shapiro-wilk test showed significance values below 0.05 for both the self-esteem and self-confidence variables in male and female groups, indicating that the data did not follow a normal distribution. Consequently, further analysis was carried out using the non-parametric Mann-Whitney U test.

Table 3. Normality Test

Variable	Group	P-Value (Shapiro-wilk)	Description
Self-esteem	Male	0.000	Abnormal
	Female	0.000	Abnormal
Self-confidence	Male	0.000	Abnormal
	Female	0.000	Abnormal

Based on Table 4, the results of the Mann-Whitney U test show that the self-esteem variable has a p-value of 0.434 ( $p > 0.05$ ), indicating no significant difference in self-esteem between male and female adolescents with acne vulgaris. Based on the mean rank, the female group (47.03) tended to have higher self-esteem than males. In contrast, for the self-confidence variable, the p-value was 0.009 ( $p < 0.05$ ), indicating a significant difference in self-confidence between male and female adolescents with acne vulgaris. Based on the mean rank, the female group (50.67) tended to have a higher level of self-confidence than males (38.09).

Table 4. Mann-Whitney U test

Variable	Gender	Mean Rank	Z	P-Value
Self-esteem	Male	43.31	-0.783	0.434
	Female	47.03		
Self-confidence	Male	38.09	-2.595	0.009
	Female	50.67		

The results of this study indicate no significant difference in self-esteem between male and female adolescents with acne vulgaris ( $p = 0.434$ ), although the mean rank score for females (47.03) was slightly higher than that for males (43.31). These findings suggest that acne vulgaris exerts a relatively similar psychological impact on self-esteem across both genders.

## IV. Discussions

### Self-esteem in adolescents with acne vulgaris based on gender

The results of this study indicate no significant difference in self-esteem between male and female adolescents with acne vulgaris ( $p = 0.434$ ), although the mean rank score for females (47.03) was slightly higher than that for males (43.31). These findings suggest that acne vulgaris exerts a relatively similar psychological impact on self-esteem across both genders.

This finding contrasts with the study conducted by Mujahidah et al., (2023), which reported a significant association between gender and self-esteem among adolescents with acne vulgaris ( $p = 0.045$ ). The study found that female adolescents were more likely to experience acne vulgaris and that condition had a greater impact on their self-esteem. Similarly, Faro et al., (2026) reported that individuals with acne are more susceptible to psychological problems, including depression, anxiety, and low self-esteem. The author further noted that females tend to exhibit lower levels of self-esteem, suggesting a relationship between acne vulgaris, self-esteem, and mental health outcomes.

The association between acne vulgaris and self-esteem can be explained through the concept of body image. According to body image theory, individual's perception and evaluation of their physical appearance influence their self-concept and level of self-esteem. Adolescents who perceive acne as a negative aspect of their appearance may experience body image dissatisfaction, which can diminish positive self-evaluation and subsequently lower self-esteem (Ramadhanty & Hamid, 2021). This phenomenon occurs because facial acne can alter individual's perceptions of their physical appearance, thereby affecting their psychological well-being (Siahaan et al., 2020).

However, the present study did not identify any gender-based differences in self-esteem. This discrepancy may be attributable to variation in participant characteristics and social environments across studies. The respondents in the present study were drawn from a boarding school setting characterized by intensive social interaction, communal living, and strong peer support. Such conditions may have enabled both male and female adolescents to maintain comparable levels of self-acceptance despite experiencing acne vulgaris. Furthermore, self-esteem is influenced not only by physical appearance but also by social support, interpersonal experiences, and individual acceptance. Therefore, although acne vulgaris may affect adolescents' self-esteem, the influence of gender on self-esteem is not necessarily consistent and may vary depending on the social and environmental contexts in which adolescents develop.

### Self-confidence in adolescents with acne vulgaris based on gender

The results of this study indicate a significant difference in self-confidence between male and female adolescents with acne vulgaris ( $p = 0.009$ ), with female adolescents demonstrating higher levels of self-confidence than their male counterparts. This finding is reflected in the mean rank scores, which were higher among females (50.67) and (38.09) for males.

These findings are consistent with the study conducted by Januarti et al., (2026), which reported a significant association between self-confidence and acne vulgaris ( $p = 0.008$ ). Adolescents' self-confidence is closely related to their perception of physical appearance, particularly during developmental stages in which appearance plays an important role in social interactions. The presence of acne vulgaris on the face may influence how adolescents perceive themselves and interact with their social environment, potentially leading to reduced self-confidence due to concerns about their physical appearance (Dianningrum & Satwika, 2021). Furthermore, acne vulgaris may have psychological consequences because it commonly appears on highly visible areas of the body and is closely associated with an individual's perception of physical attractiveness (Perdana et al., 2024). Adolescents who develop negative perceptions of their physical condition are more likely to experience decreased self-confidence, especially in social settings. Physical appearance is considered one of the internal factors influencing self-confidence, as acne vulgaris affects not only appearance but also psychological well-being (Januarti et al., 2026).

Physical appearance is often an important factor that shapes how individuals are perceived and evaluated by others. Adolescents with acne vulgaris frequently experience social and psychological pressure resulting from prevailing beauty standards, in which clear and blemish-free skin is often regarded as the ideal representation of attractiveness. Consequently, adolescents with acne vulgaris may experience feelings of insecurity regarding their appearance (Adam & Astuti, 2025).

Research conducted by Mujahidah et al., (2023) suggests that the high prevalence of acne among adolescent girls contributes both directly and indirectly to psychological problems that may negatively

affect self-confidence. similarly, Aryani & Riyaningrum, (2022), reported that individuals with acne vulgaris often experience discomfort and negative self-perception because the condition typically affects highly visible areas of the body and has a substantial impact on physical appearance.

However, the findings of the present study revealed that female adolescents exhibited higher levels of self-confidence than male adolescents. This result may be attributed to females greater ability to adapt to changes in physical appearance, as well as stronger social support systems and higher levels of self-acceptance. In addition, supportive social environments and peer relationship may help female adolescent maintain and develop self-confidence despite experiencing acne vulgaris.

This study contributes to the existing body of knowledge by providing empirical evidence regarding gender differences in self-esteem and self-confidence among adolescents with acne vulgaris in an Islamic boarding school setting. Previous studies have primarily focused on the clinical manifestations of acne vulgaris, while its psychological dimensions particularly self-esteem and self-confidence among adolescents in boarding school environments have received limited attention. Therefore, this study expands current understanding of the gender-related psychological impact of acne vulgaris. Nevertheless, several limitations should be acknowledged. First, the cross-sectional design only captures conditions at a single point in time and does not allow for the establishment of causal relationship. Second, the study was conducted in a single Islamic boarding school with a relatively small sample size, which may limit the generalizability of the findings.

Future studies are encouraged to include larger and more diverse populations from different regions to enhance the generalizability of the results. Moreover, longitudinal research is needed to examine changes in the psychological well-being of adolescents with acne vulgaris over time. Further investigations may also explore additional psychological factors associated with acne vulgaris, such as body image, social anxiety, quality of life, and coping strategies.

## V. Conclusion

This study shows that there is no difference in self-esteem between male and female adolescents with acne vulgaris. However, there is a significant difference in self-confidence, with female adolescents exhibiting higher levels than male adolescents. These findings suggest that the psychological impact of acne vulgaris on adolescents varies across different dimensions, particularly in term of self-confidence, which appears to be more strongly influenced by gender.

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