

THE EFFECT OF ACNE VULGARIS ON BODY IMAGE, SELF-ESTEEM, AND SELF-CONFIDENCE AMONG ADOLESCENTS

Shally Ayu Chintya¹, Nafiah Apriliasiharta², Siti Khomsatin³

¹Skin And Hair Health Study Program, Akademi Komunitas Darussalam, Banyuwangi

²Departement of Pediatric, Dr Moewardi General Hospital, Surakarta

³Skin And Hair Health Study Program, Akademi Komunitas Darussalam, Banyuwangi

ARTICLE INFO

Corresponding author:

Shally Ayu Chintya
Skin And Hair Health Study
Program, Akademi
Komunitas Darussalam,
Banyuwangi

Email:

ayuchintyashally@gmail.com

Kata kunci:

Acne Vulgaris
Body Image
Harga Diri
Kepercayaan Diri

Keywords:

Acne Vulgaris
Body Image
Self-Esteem
Self-Confidence

Original submission:

October 19, 2025

Accepted:

November 7, 2025

Published:

January 24, 2026

ABSTRAK

Acne vulgaris atau jerawat merupakan masalah kulit yang sering dialami remaja, terutama akibat perubahan hormonal, fisik, psikologis, dan sosial. Penelitian ini bertujuan menganalisis pengaruh jerawat terhadap body image, harga diri, dan kepercayaan diri remaja di pesantren. Metode kuantitatif dengan desain case-control digunakan pada 170 responden (90 kasus, 80 kontrol). Instrumen penelitian meliputi BAS-2 untuk body image, GSES untuk kepercayaan diri, dan RSES untuk harga diri. Analisis dilakukan dengan uji chi-square (CI 95%) dan analisis jalur. Hasil menunjukkan jerawat berpengaruh langsung terhadap body image ($b=0.64$; $p=0.042$), harga diri ($b=-1.16$; $p=0.001$), dan kepercayaan diri ($b=-0.70$; $p=0.045$). Secara tidak langsung, body image memengaruhi harga diri, dan harga diri memengaruhi kepercayaan diri. Temuan ini menegaskan jerawat berdampak signifikan pada aspek psikologis remaja, sehingga perlu perhatian khusus dalam upaya peningkatan kesehatan mental dan dukungan sosial.

ABSTRACT

The effect of acne vulgaris on body image, self-esteem, and self-confidence among adolescents. Acne vulgaris, or acne, is a common skin problem among adolescents, primarily due to hormonal, physical, psychological, and social changes. This study aims to analyze the impact of acne on body image, self-esteem, and self-confidence among adolescents in Islamic boarding schools. A quantitative method with a case-control design was used on 170 respondents (90 cases, 80 controls). The research instruments included the BAS-2 for body image, the GSES for self-confidence, and the RSES for self-esteem. Analysis was conducted using the chi-square test (95% CI) and path analysis. The results showed that acne directly affected body image ($b=0.64$; $p=0.042$), self-esteem ($b=-1.16$; $p=0.001$), and self-confidence ($b=-0.70$; $p=0.045$). Indirectly, body image affected self-esteem, and self-esteem affected self-confidence. These findings confirm that acne has a significant impact on the psychological aspects of adolescents, thus requiring special attention in efforts to improve mental health and social support. adolescents. Body image indirectly influence self-confidence through self-esteem, and self-esteem also has an indirect effect through self-confidence.

INTRODUCTION

Acne, also known as acne vulgaris, is a common skin disorder frequently experienced during puberty, primarily due to hormonal, physical, psychological, and social changes. This condition can trigger stress, depression, and a decline in quality of life.^{1,2} Although acne predominantly occurs in adolescents, it can also affect children and adults.³ Adolescent acne may influence an individual's

self-concept, encompassing all feelings, beliefs, and values recognized by the individual in social interactions. ⁴ Generally, acne appears on the face, upper chest, and upper back. ⁵

Acne is estimated to affect approximately 9.4% of the global population, ranking it eighth among various skin diseases. ⁶ According to the Global Burden of Disease (GBD) study, the prevalence of acne vulgaris is about 85% among young adults aged 12 to 25 years, ⁷ This condition is more commonly experienced by women, with two-thirds seeking consultation with dermatologists regarding acne. ⁶ Acne is a significant source of anxiety, depression, and low self-esteem. ⁸ Although the incidence of acne tends to decrease after adolescence, it can persist for several decades, with a prevalence of 12% among young adults. ²

This condition can affect adolescents' self-esteem due to decreased self-confidence. Low self-confidence can lead to difficulties in interacting with others and the surrounding environment. ¹ Individuals with acne vulgaris may experience difficulty accepting themselves because of a negative body image, which can make them feel ashamed, inferior, and dissatisfied with their own appearance. ⁹

Although acne is not a life-threatening condition, it can cause psychosocial problems. Adolescents with acne are more likely to experience mental health issues ranging from mild anxiety, embarrassment, low self-esteem, poor body image satisfaction, depression, and suicidal ideation. Acne can also affect social and mental aspects of life, such as changes in self-esteem, depressive symptoms, and anxiety. ¹⁰ Psychological problems associated with acne vulgaris include low self-esteem, lack of confidence, body image dissatisfaction, embarrassment or social withdrawal, anxiety, and depression. ⁴

A previous study, analyzed the relationship between body image perception and self-esteem among adolescents with acne vulgaris. The results showed a significant relationship between body image and self-esteem ($p = 0.000$). ¹¹ Another study, examined the correlation between the incidence of acne vulgaris and the level of self-confidence among medical students. The findings indicated a significant but weak correlation between acne vulgaris and self-confidence ($p = 0.015$; $r = 0.205$). ¹² Another study reported a p-value of 0.000, indicating a significant relationship between the occurrence of acne vulgaris and self-confidence. ¹³

Although previous studies have shown that acne vulgaris is associated with self-confidence, self-esteem, and body image, most of these studies have focused only on the direct (bivariate) relationships between two variables. Earlier research has not comprehensively explained the direct and indirect mechanisms linking acne vulgaris to the psychosocial aspects of adolescents.

By using path analysis, this study provides a deeper understanding of the psychological mechanisms that occur among adolescents with acne vulgaris. The purpose of this study is to analyze the effect of acne vulgaris on body image, self-esteem, and self confidence among adolescents in Islamic boarding schools. This research aims to identify the extent to which acne vulgaris influences these three aspects, both directly and indirectly, in order to provide a more comprehensive understanding.

METHOD

This study is a quantitative research with an analytical observational approach using a case-control design. The population consisted of adolescents aged 14 to 24 years living in the Darussalam Islamic Boarding School area, Banyuwangi Regency. Sampling was carried out using purposive sampling with a fixed-disease approach, resulting in a total of 170 samples, consisting of 80 control

samples and 90 case samples. Data were collected using questionnaire instruments: the assessment of acne was conducted using a self-reported questionnaire that indicated whether or not the respondents experienced acne, the BAS-2 (Body Appreciation Scale) for body image, the RSES (Rosenberg Self-Esteem Scale) for self-esteem, and the GSES (General Self-Efficacy Scale) for self-confidence. Univariate analysis was conducted to describe the characteristics of the variables. Bivariate analysis was performed to determine the relationships between variables using the chi-square test (95% CI), and multivariate analysis was conducted using path analysis to identify direct and indirect effects.

Research ethics included informed consent, anonymity, confidentiality, and ethical eligibility. Ethical approval was obtained from the Health Research Ethics Committee of Dr. Moewardi General Hospital, Surakarta, under the number: 2.062/IX/HREC/2025.

RESULTS

Table 1 presents the characteristics of the respondents. The table 1 shows that there were 90 respondents with acne vulgaris (52.9%). A total of 90 respondents (52.9%) had low self-confidence, and 101 respondents (59.4%) had a negative body image. In addition, 77 respondents (45.3%) had low self-esteem, and 92 respondents (54.1%) were female.

Tabel 1. Characteristic of study subjects

Variables	Frequency (n)	Percent (%)
Acne Vulgaris		
Acne vulgaris	90	52.9
Without acne vulgaris	80	47.1
Self confidence		
Low	90	52.9
High	80	47.1
Body Image		
Positive	69	40.6
Negative	101	59.4
Self esteem		
Low	77	45.3
High	93	54.7
Sex		
Male	78	45.9
Female	92	54.1

Table 2 shows the results of the bivariate analysis between the independent and dependent variables. There is a relationship between acne vulgaris and body image; adolescents with acne vulgaris are more likely to have a lower positive body image than those without acne vulgaris (OR = 1.901; $p = 0.041$). There is also a relationship between acne vulgaris and self-confidence; adolescents with acne vulgaris are more likely to have lower self-confidence than those without acne vulgaris (OR = 0.368; $p = 0.001$). In addition, there is a relationship between acne vulgaris and self-esteem; adolescents with acne vulgaris are more likely to have lower self-esteem compared to those without acne vulgaris (OR = 0.368; $p = 0.002$).

Table 2 bivariate analysis

variable	Acne vulgaris				Total		OR (Odd Ratio)	p
	Acne		Not Acne		N	%		
	N	%	N	%				
Body Image								
Positive	30	17.6	39	22.9	69	40.6	1.902	0.041
Negative	60	35.3	41	24.1	101	59.4		
Self-confidence								
Low	58	34.1	32	18.8	90	52.9	0.368	0.001
High	32	18.8	48	28.2	80	47.1		
Self-esteem								
Low	51	30	26	15.3	77	45.3	0.368	0.002
High	39	22.9	54	31.8	93	54.7		

The model specification describes the relationships among the variables studied. In this research, there are four measured variables: acne vulgaris, body image, self-confidence, and self-esteem. Table 3 presents the result of the path analysis. The finding show that adolescents with acne vulgaris have a 0.64 unit lower log-odds of having a positive body image compared to those without acne vulgaris ($b = 0.64$; CI 95% = 0.02 to 1.26; $p = 0.042$). Furthermore, adolescents with acne vulgaris have a -1.16 unit lower log-odds of having high self-esteem compared to those without acne vulgaris ($b = -1.16$; CI 95% = -1.82 to -0.50; $p = 0.001$). Similarly, adolescents with acne vulgaris have a -0.70 unit lower log-odds of having high self-confidence compared to those without acne vulgaris ($b = -0.70$; CI 95% = -1.39 to -0.01; $p = 0.045$).

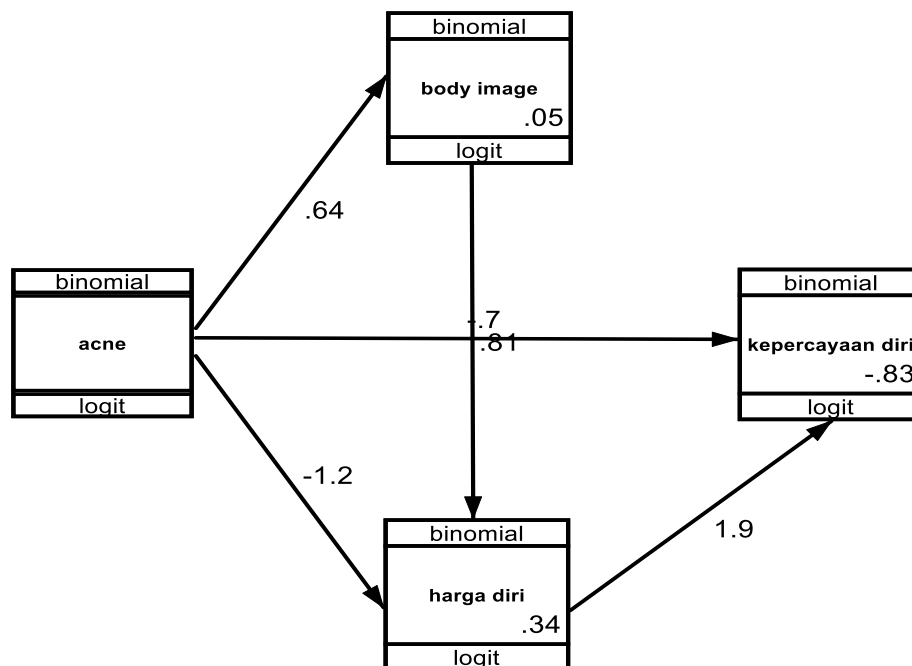


figure 1. structural model of path analysis

Table 3. the results of path analysis

Variable	b	Confidence Interval (CI)		p
		(95%)		
		Lower	upper	
Direct effect				
Body Image ← Acne	0.64	0.02	1.26	0.042
self-esteem ← Acne	-1.16	-1.82	-0.50	0.001
self-confidence ← Acne	-0.70	-1.39	-0.01	0.045
Indirect effect				
self-esteem ← Body image	0.80	0.14	1.47	0.017
self- confidence ← Self-esteem	1.88	1.18	2.58	<0.001
N observation = 170				
Log likelihood = - 318.93				

DISCUSSION

Acne vulgaris is a chronic skin disorder that can affect individuals of all ages, but it most commonly occurs during adolescence and early adulthood. The condition is the most prevalent skin problem among these age group. Mild acne lesions without redness may cause only slight discomfort; however, in cases of severe inflammation, acne can lead to pain, embarrassment, and both physical and emotional scarring that significantly impacts a person's quality of life.²⁰ acne vulgaris adolescent suffering from acne may experience behavioral and emotional difficulties such as unhappiness, shame, discomfort with their appearance, and decreased self-confidence and self-esteem.¹⁴

The relationship between pshycological factors and skin problem has long been assumed. Psychodermatology explores the interaction between the mind and the skin. Since the brain and the skin originate from the same embryonic layer the ectoderm and are influenced by the same hormones and neurotransmitters, there is likely a strong connection between them. Psychiatrists focus on diseases that occur within the body (invisible to the human senses), while dermatologist concentrate on conditiond that are visible on the surface on skin.¹⁵

The effect of acne vulgaris on body image

The analysis results show that acne vulgaris has a direct and positive influence on body image and is statistically significant. Indirectly, body image is also affected through self-esteem. This finding is consistent with the previous study, which demonstrated a significant relationship between body image perception and acne vulgaris, with a p-value of 0.000.¹¹ Individuals suffering from acne vulgaris often find it difficult to accept their physical condition and body image, which in turn affects their social interactions due to feelings of shame, inferiority, and dissatisfaction with their appearance.⁹ Similarly, another study also reported a significant relationship between acne vulgaris and adolescents' body image, with a p-value of 0.016.¹⁶

Individuals with acne vulgaris tend to experience dissatisfaction with their physical appearance, perceiving themselves as less attractive or not meeting ideal standards, which consequently reduce their self-confidence.³ According to previous study, people with acne vulgaris often experience body image disturbances, feelings of shame, and low self-esteem, and they are at higher risk of developing depression, anxiety, and psychosomatic symptoms—all of which can lead to social isolation.¹¹

The effect of acne vulgaris on self-esteem

The results of the analysis indicate that acne vulgaris has a direct and negative influence on self-esteem, which is statistically significant. Self-esteem is also indirectly affected through self-confidence. This finding is consistent with the previous study, which showed a significant relationship between acne vulgaris and adolescents' self-esteem, with a p-value of 0.003.¹⁷

In this study, a statistically highly significant relationship was between adolescents' satisfaction with their body image and family incomes, as well as a statistically significant relationship with age and the age at which acne first appeared. The perceived stigma among adults with acne is a significant predictor of acne, having an even greater influence than acne severity, gender, or age.¹⁴

Acne can affect a person's appearance, self-esteem, and quality of life. Appearance disorders refer to feelings of dissatisfaction, functional impairment, and the distress an individual experiences regarding their own appearance.¹⁵

Acne vulgaris can also affect adolescents' social lives and mental health, potentially leading to disturbances in self-concept and psychosocial issues such as changes in self-esteem. Moreover, individuals with acne vulgaris may experience symptoms of depression and anxiety.¹ The appearance of acne vulgaris during adolescence can have personal, social, and psychological impacts. These effects may contribute to problems such as depression, low self-esteem, and fear of social interaction.¹⁷

Individuals with low self-esteem may experience criticism, feelings of inadequacy, anxiety, depression, and social withdrawal.¹⁸ Low self-esteem is widely regarded as a significant risk factor for mental health, given its strong association with depression, anxiety, and other psychiatric disorders.¹⁹ Concerns related to appearance, which may lead to anxiety, mood changes, and low self-esteem. Self-esteem represents an individual's positive or negative attitude toward themselves, which is associated with physical abilities, social relationships, or physical appearance.¹¹

The effect of acne vulgaris on self-confidence

The results of the analysis showed that acne vulgaris has a direct and negative effect on self-confidence, and this effect is statistically significant. This finding aligns with a previous study, which reported a p-value of 0.015 and an r-value of 0.205, indicating a significant correlation between the incidence of acne vulgaris and the level of self-confidence.¹² Similarly, another study found a p-value of 0.000, demonstrating that acne vulgaris is associated with self-confidence among university students.⁴

Self-confidence determines a person's self-assessment and self-respect, serving as the foundation for personal development. The level of wisdom also influences whether an individual possesses high or low self-confidence. A high level of self-confidence enables a person to better recognize, believe in, and understand their own abilities. This confidence once an individual becomes aware of what they truly need in life.¹⁴

The appearance of acne can reduce an individual's level of self-confidence, as acne vulgaris affects areas that are easily visible and crucial to one's appearance.²⁰ Skin changes observed in individuals with acne vulgaris, such as papules, pustules, nodules, and cysts, carry the risk of leaving scars that may persist for years or even permanently, particularly when occurring on the face. This condition can trigger significant psychosocial impacts.²¹ In addition, individuals with acne vulgaris may feel insecure, fear being bullied, experience anxiety and depression, and even isolate themselves due to not wanting others to see their face.¹⁶

LIMINATIONS OF THE STUDY

This study has several limitations. First, it employed an analytical research design with a case-control approach, which only demonstrates the relationship between variables rather than a direct cause and effect relationship. Second, the data collection process was conducted using questionnaires with a self-report method, which may lead to potential perceptual errors by respondents when answering the questions particularly those related to psychological aspects such as self-esteem and self-confidence.

CONCLUSION

Acne vulgaris directly affects body image, self-esteem, and self-confidence among adolescents in Islamic boarding schools. In addition, body image indirectly influences self-confidence through self-esteem, and self-esteem also has an indirect effect through self-confidence. These findings indicate the possible presence of underlying psychological mechanisms among adolescents in boarding school settings. However, the limited sample size and the study's focus on a single environmental context call for further research with a larger population and a more in-depth approach to validate and strengthen these findings.

REFERENCES

1. Mujahidah Z, Suharto S, Fitri I. Acne Vulgaris dan perubahan harga diri. *Jurnal Ilmu Kesehatan Masyarakat*. 2023;12(05):381–7.
2. Attard NR. Acne, hidradenitis suppurativa and hyperhidrosis. *Medicine (United Kingdom)*. 2025;53(7):461–6.
3. Kristanti AJ, Savira Slna. Gambaran Citra Tubuh Pada Wanita Dewasa Awal Yang Mengalami Acne Vulgaris. *Jurnal Penelitian Psikologi*. 2021;08(03):12–23.
4. Aryani DT, Riyaningrum W. Hubungan Acne Vulgaris (Av) Dengan Kepercayaan Diri Pada Mahasiswa Universitas Muhammadiyah Purwokerto Angkatan 2021. *Jurnal Kesehatan Tambusai*. 2022;3(3):434–41.
5. Sharma R, Dogra N, Arora M. Psychosocial impact of acne vulgaris on the quality of life among adolescents versus adults. *Clinical Medicine, Journal of the Royal College of Physicians of London*. 2023;23(6):35.
6. Vasam M, Korutla S, Bohara RA. Acne vulgaris: A review of the pathophysiology, treatment, and recent nanotechnology based advances. *Biochemistry and Biophysics Reports*. 2023;36(November):101578.
7. Fadilah AA. Hubungan Stres Psikologis Terhadap Timbulnya Akne Vulgaris. *Jurnal Ilmiah Kesehatan Sandi Husada*. 2021;10(2):390–5.
8. Kaikati J, Kechichian S, Stepan F, Helou J, Sleliati G, Tomb R, the impact of acne treatment on quality of life and self-esteem: A prospective cohort study from Lebanon. *International Journal Women's Dermatology*. 2021;7:415-421. <https://doi.org/10.1016/j.ijwd.2021.03.005>.
9. Tayel K, Attia M, Agamia N, Fadel N. Acne vulgaris: prevalence, severity, and impact on quality of life and self-esteem among Egyptian adolescents. *Journal of the Egyptian Public Health Association*. 2020;95(1).

10. Tuğrul B, Demirdağ HG, Aslan C, Muştu Koryürek Ö. An overlooked burden of acne in adolescents: the psychosocial well-being of their families. *Anales de Pediatria (English Edition)*. 2023;99(1):37–43.
11. Ramadhanty RP, Hamid AYS. Body image perception is related to self-esteem of the adolescents with acne vulgaris. *enfermeria clinica*. 2021; 31(2): S326-S329. <https://doi.org/10.1016/j.enfcli.2020.09.021>.
12. Adila SR, Alfarrar Y, Sundawa AP. Hubungan Kejadian Akne Vulgaris Dengan Tingkat Kepercayaan Diri. *Jurnal Ilmiah Sul*. 2024;213–20.
13. Ramadhianti S, Kurniawan B. Hubungan Kejadian Akne Vulgaris Terhadap Kepercayaan Diri Mahasiswi Fakultas Kedokteran Universitas Islam Sumatera Utara. *Jurnal Kedokteran Ibnu Nafis*. 2023;12(2):55–63.
14. Awad EA, Soliman F, Maklad S. The Effect of Acne Vulgaris on Body Image Satisfaction, Self Esteem and Quality of Life of Adolescents at Tanta city. *Tanta Scientific Nursing Journal*, 2022; 27(4): 188-206. doi: 10.21608/tsnj.2022.267578.
15. Sarkar S, Patra P, Mridha K, Ghosh S, Mukhopadhyay A, Thakurta R. Personality disorders and its association with anxiety and depression among patients of severe acne: A cross-sectional study from Eastern India. *Indian Journal of Psychiatry*. 2016;58(4):378–82.
16. Qonadya U, Sutini T. Hubungan Akne Vulgaris Dengan Citra Tubuh Remaja Di Desa Lonam Kabupaten Sambas Kalimantan Barat. *IJ Of Nursing Sscience and Practice*. 2021;4(1):41-48.
17. Siahaan TD, Lestari TB, Supardi S. Hubungan Antara Kejadian Acne Vulgaris Dengan Harga Diri Remaja. *Jurnal Mutiara Ners Januari-Juni*. 2020;3(1):15–21.
18. AlQaifi F. International students' adaptation in Ankara: The mediating roles of anxiety and self-esteem. *International Journal of Intercultural Relations*. 2025;108(13):102249.
19. Zang X, Wang S, Yang J. Beyond the text: Voice as a stable marker of self-esteem. *Journal of Research in Personality*. 2025;117(April):104636.
20. Perdana K, Ozar BM, Meher C, Utami N. Derajat Kepercayaan Diri Ditinjau Dari Keikutsertaan Remaja Akhir Mengikuti Program Terapi Acne Vulgaris. *Jurnal Kedokteran Ibnu Nafis*. 2024;13(2):172–7.
21. Saiya GD, Manuputty AG, Saiya AF, Yakobus S, Titaley CR, Tanamal RS. Hubungan Derajat Keparahan Akne Vulgaris dengan Tingkat Kepercayaan Diri Pada Mahasiswa Fakultas Kedokteran Universitas Pattimura Ambon Program Studi Pendidikan Dokter Fakultas Kedokteran Universitas Pattimura Ambon Corresponding author email : gabrielasa. 2023;5(April):47–54.