

## Exploring the Link between Acne Vulgaris Severity and Adolescents' Quality of Life in Gresik

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### **ABSTRAK**

*Masa remaja adalah masa transisi antara masa kanak-kanak dan masa dewasa, hal itu menimbulkan konflik dalam diri remaja yang sering memunculkan tingkah laku yang aneh dan canggung, ini karena pada usia remaja ada masa pubertas yang dapat merubah fisik maupun psikologis. Sehingga kemunculan acne vulgaris dapat mengganggu kepercayaan diri remaja. Tujuan penelitian untuk menganalisis hubungan derajat keparahan acne vulgaris dengan kualitas hidup remaja. Desain penelitian yang di gunakan adalah penelitian korelasi menggunakan pendekatan cross sectional. Dengan rancangan populasi yang digunakan adalah remaja di Gresik, besar sampel sebanyak 210 remaja, dengan Teknik sampling menggunakan simple random sampling. Pengumpulan data menggunakan kuesioner CADI dan lembar observasi. Variable yang diukur yaitu derajat keparahan acne vulgaris dan kualitas hidup remaja. Analisis data menggunakan tabulasi silang dan uji rank spearman. Dari 210 siswa dan siswi di SMAN yang mengalami derajat ringan (46.2%), derajat sedang (45.2%), derajat berat (8,6%). Setengahnya dari remaja yang mengalami derajat ringan. Dan pada kualitas hidup siswa dan siswi yang tidak ada gangguan (1.0%), gangguan ringan (25.7%), gangguan sedang (31.9%), gangguan berat (41.4%) setengahnya dari responden mengalami gangguan berat. Hasil uji rank spearman  $p = < 0,05$  artinya ada hubungan yang signifikan. ada hubungan antara derajat keparahan acne vulgaris dengan kualitas hidup remaja di Gresik.*

**Kata kunci :** Acne Vulgaris, Kualitas Hidup, Remaja

### **ABSTRACT**

*Adolescence is a transition period between childhood and adulthood, this creates conflict within adolescents which often gives rise to strange and awkward behavior, this is because during adolescence there is a period of puberty which can change physically and psychologically. So the appearance of acne vulgaris can disrupt teenagers' self-confidence. The study aimed to analyze the relationship between the severity of acne vulgaris and the quality of life of adolescents. The research design used is correlation research using a cross sectional approach. The population design used was teenagers in Gresik, the sample size was 210 teenagers, with a sampling technique using simple random sampling. Data collection used the CADI questionnaire and observation sheets. The variables measured were the severity of acne vulgaris and the quality of life of adolescents. Data analysis used cross tabulation and sperm rank test. Of the 210 students at SMAN who experienced mild degrees (46.2%), moderate degrees (45.2%), severe degrees (8.6%). Half of teenagers experience mild degrees. And regarding the quality of life of students and students who had no disturbances (1.0%), mild disturbances (25.7%), moderate disturbances (31.9%), severe disturbances (41.4%), half of the respondents experienced severe disturbances. The results of the Spearman rank test are  $p = < 0.05$ , meaning there is a significant relationship. There is a relationship between the severity of acne vulgaris and the quality of life of adolescents in Gresik.*

**Keywords:** Acne Vulgaris, Quality of Life, Adolescents

## **INTRODUCTION**

Acne vulgaris, also known as acne, is a skin condition that attracts the attention of teenagers and early adults. Acne is not fatal, but it is quite worrying for some teenagers. The reason is, the appearance of acne makes them worry and reduces self-confidence. Acne vulgaris occurs because the pores on the skin are clogged so that it causes the emergence of pustules and abscesses that are inflamed and create infection around the skin. Acne usually arises or appears on the face, back and neck (Sampelan et al., 2017).

Cases of acne vulgaris severity can be long-lasting with lesion growth progressing into adulthood. It mostly affects the face rather than other parts, so it can have a major psychological impact on each person, especially teenagers. The incidence of acne vulgaris in America occurs 60% to 70% during their lifetime, about 20% suffer from severe acne resulting in scarring. While in Indonesia the rate of occurrence of acne vulgaris is 85% to 100% during their lifetime, it is more common in males, namely 95-100 percent, in contrast to women who are 83-85 percent at the age of 16-17 years (Eka, 2019).

Acne can leave marks such as scars and pigmentation, so in this case it can cause sufferers to feel embarrassed and anxious. And this can make sufferers less confident and may also be depressed, so this can affect the quality of life of sufferers (Yuniati, 2020).

Acne vulgaris tends to appear frequently during adolescence, it is because during adolescence there is puberty which means there are various changes. the changes in question are changes in physical or psychological form towards hormones in the maturation of reproductive organs, classified as glands that can be related to the mechanisms that form acne vulgaris (Yankes, 2022).

Adolescents with acne vulgaris have a poorer quality of life as their acne worsens. As such, acne vulgaris can interfere with daily life, especially with regards to social relationships. While acne vulgaris may go away on its own, it cannot be understated that its impact on the daily lives of sufferers is significant, especially in the case of acne that appears on areas of the face that are easily visible or difficult to hide. This is because acne vulgaris is more common during adolescence, which is the most important period in the

development of one's self-confidence and social skills (Lema1 et al., 2022).

Therefore, after seeing some of the explanations above, it can be concluded that the prevalence of acne vulgaris is still high, affecting the quality of life of sufferers. therefore, it is important to be able to find out the relationship between acne vulgaris severity and quality of life in adolescents.

## **LITERATURE REVIEW**

Acne is a skin abnormality that is very common in adolescence and early adulthood between the ages of 12 and 35. Girls and boys are equally affected, with the highest incidence in girls aged 14 to 17 years and boys aged 16 to 19 years. This skin disorder does occur during puberty and adolescence. It may be due to several endocrine glands that influence the secretion of sebaceous glands to peak activity at this age. Acne is caused by a combination of genetic, hormonal and bacterial factors. In most cases, families suffer from acne (Hartono, 2001).

Acne vulgaris is the medical term for normal acne. It is considered the most common skin condition, and one can experience it at any stage of life. In this condition, one or more painful red bumps may suddenly appear on the top of the skin (Prutha, 2021).

The causes of acne vulgaris are multifactorial, but the exact cause is still unknown. Here are some 8

causes of acne vulgaris that are believed to contribute to it: (Wasitaatmadji, 2018) sebumhypersecretion,hyperkeratinization,propionibacterium acnes colonies, and inflammation.In addition, there are other factors that are considered to have a role in the process of acne vulgaris, namely:

**Hormonal factors** Acne appears generally during puberty when there is an increase in adrenal hormones that stimulate the development of sebaceous glands and the development of sebum. This occurs in people who are prone to various diseases due to androgenic dermatosis. This can be seen as androgenetic alopecia, seborrhea, hirsutism and acne vulgaris.

**Food factors** In general, foods high in cholesterol can increase sebum production which can lead to an increase in inflammatory

comedogenic elements, the formation of free fatty acid fractions can cause inflammation and excessive sebum production which leads to acne.

Factors of cosmetic use The use of cosmetic products for a long time and often without paying attention to physical hygiene can be a risk factor for acne vulgaris on the face.

Irregular sleep patterns are thought to be one of the factors that cause acne vulgaris. Sleeping late at night can cause increased androgen hormone activity and stress threshold, decreased immune system and increased insulin resistance.

Stress factors, Stressful situations can also cause sufferers to be affected by acne mechanically, so that damage can occur in the follicle wall and result in the emergence of new inflamed lesions. So that in stressful conditions the chance of getting acne vulgaris is more likely to increase.

**METHOD**

Research design is an important part of research that aims to control factors that can affect the validity of research findings (Nursalam, 2017). The research design used in this study is a cross-sectional correlational study (Sholikhah et al., 2022).

Cross-sectional research is a study used to test the correlation of risk factors with influence factors using a point-in-time approach, observation or data collection (Notoatmojo, 2018). In a cross-sectional research design, data is collected by studying the same location and the same time as the research problem. In this study, the population to be used is high school adolescents in Gresik, totaling 384 people. The number of samples was 210 adolescents. Sampling using simple random sampling technique.

**RESULTS AND DISCUSSION**

Table 1 Frequency distribution by age of adolescents in Gresik 2023

No	Characteristics Age	Frequency (n)	Percentage (%)
1	16	114	54.3
2	17	94	44.7
3	18	2	1.0
Total n (%)		210	100.0

Almost everyone has also

experienced and been affected by acne vulgaris, this usually starts when entering adolescence around the age of 16-18 years. Based on the distribution table above, the age that many suffer from acne vulgaris is at the age of 16 years with a total of 114 (54.3%), which means that most of the adolescents who suffer from acne vulgaris are 16 years old. Then followed by the age of 17 years with a total of 94 (44.7%) which means that almost half of them are adolescents affected by acne vulgaris, and then the age of 18 years with a total of 2 (1.0%) which means that only a small part of that age suffers from acne. All this is because at that age there are many incidents of increased hormones that can trigger acne, in addition to hormones there is also stress that can trigger acne. The appearance of acne is actually a very natural thing because when in adolescence will definitely experience the appearance of acne, but with different degrees.

Table 2 Frequency distribution by gender of adolescents in Gresik 2023

No	Characteristics Gender	Frequency (n)	Percentage (%)
1	Male	142	67.6
2	Female	68	32.4
Total n (%)		210	100.0

In this case it is likely that women are more likely to experience disturbances in their quality of life. This is because women prioritize their appearance, when there are problems with their appearance it can make them feel embarrassed and insecure. In contrast to men who tend to feel pd and do not really care about their appearance. And based on the gender distribution table data, women are the most numerous with a total of 142 (67.6%), which means that most are women. Then with a total of 68 (32.4%) which means almost half are men.

Table 3 Frequency distribution based on the severity of acne vulgaris in adolescents in Gresik 2023

No	Characteristics Degree	Frequency (n)	Percentage (%)
1	mild	97	46.2

2	moderate	95	45.2
3	severe	18	8.6
	Total n (%)	210	100.0

The results showed that the degree of severity of acne vulgaris above, the results of almost half were mild with a total of 97 (46.2%) respondents suffering from acne vulgaris with mild severity. then the next is moderate with almost half 95 (45.2%). and the least is the degree of severity of severe acne as many as 18 (8.6%) which means that a small percentage experience severe acne severity.

Table 4 Frequency distribution based on quality of life of adolescents in Gresik 2023

No	Quality of life	Frequency (n)	Percentage (%)
1.	No impairment		
2.	Slight impairment	97	46.2
3.	Moderate impairment	95	45.2
4.	Severe impairment	18	8.6
	Total n (%)	210	100.0

Based on table the frequency distribution of the quality of life of adolescents is the most severe quality of life disorders with a total of 87 (41.4%) adolescents which means that almost half have severe quality of life disorders due to acne, then the next is moderate quality of life disorders with a total of 67 (31.9%) which means that almost half have moderate quality of life disorders due to acne, then mild quality of life disorders as many as 54 (25.7%) which means that almost half of the respondents experience mild quality of life disorders due to acne. And the low one is no impairment in quality of life with a total of 2 (1.0%), which means that a small proportion of respondents have no impaired quality of life.

Table 5 Results of the relationship between the severity of acne vulgaris and the quality of life of adolescents in Gresik 2023

Severity Mild	Quality of Life				Total
	Not disturbed	Mild disturbance	Moderate disturbance	Severe disturbance	
	Percentage (%)	Percentage (%)	Percentage (%)	Percentage (%)	
Moderate	1.0	24.7	33.0	41.3	100.0
Severe	0.0	26.3	30.5	43.2	100.0
Severity	5.6	27.8	33.3	33.3	100.0
Total (%)	1.0	25.7	31.9	41.4	100.0

$P=0,000<0,05$

Based on the results of the above research, the acne severity group, namely mild degree, moderate degree and severe degree, the most prominent is having severe quality of life impairment with the number of mild degrees as much as almost half (41.3%), then moderate degrees as much as almost half (43.2%), and the next with severe degrees as much as almost half (33.3%). The next result is from moderate quality of life impairment with the most percentage in severe severity which is almost half (33.3%), then mild degree as much as almost half (33.0), next is a moderate degree as much as almost half (30.5%). The next result is mild quality of life impairment with the

highest percentage of severe severity as much as almost half (27.8%), then moderate degrees as much as almost half (26.3%), then mild degrees as little as 24.7%. The next result is no impaired quality of life, the most results in severe severity, namely a small proportion (5.6%). Then a mild degree with a small amount (1.0%), then a moderate degree with none (0.0%) experiencing impaired quality of life.

**CONCLUSION**

Many adolescents who suffer from acne vulgaris experience mild severity, this is evidenced by the percentage that shows almost

half with a total of 97 (46.2%) experiencing acne vulgaris with mild degrees. Furthermore, from the results of taking data on the quality of life of adolescents, most of them have a severe quality of life disorder with the results of a percentage of almost half with a total of 87 (41.4%) having a severe quality of life disorder due to acne.

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