



The Relationship of Facial Skin Personal Hygiene to The Onset of Acne (Acne Vulgaris) in Adolescent Boys

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Abstrak

Jerawat adalah masalah umum yang sering terjadi pada usia muda dan dipengaruhi oleh faktor-faktor seperti iklim, kebersihan, penggunaan kosmetik, usia, ras, makanan, jenis kelamin, dan genetika. Penelitian ini dilakukan di SMAN 1 Pangkalan Koto dengan melibatkan 155 siswa laki-laki. Dari jumlah tersebut, 111 siswa (71%) mengalami masalah jerawat. Tujuan penelitian adalah untuk menilai hubungan antara kebersihan kulit wajah (Personal Hygiene) dengan kejadian acne vulgaris pada remaja laki-laki di SMAN 1 Pangkalan Koto Baru. Metode penelitian yang digunakan adalah analitik korelasi dengan desain cross-sectional. Variabel independen adalah kebersihan pribadi, sedangkan variabel dependen adalah kejadian acne vulgaris. Sampel penelitian terdiri dari siswa laki-laki yang mengalami acne vulgaris dan memenuhi kriteria penelitian. Data primer dan sekunder dikumpulkan melalui kuesioner. Analisis data dilakukan dengan metode analisis univariat dan bivariat. Hasil penelitian menunjukkan bahwa sekitar 51,6% remaja laki-laki di SMAN 1 Pangkalan Koto Baru mengalami acne vulgaris tingkat sedang. Tingkat Personal Hygiene mereka juga dikategorikan sedang, dengan 69,4% responden memiliki tingkat kebersihan yang serupa. Hasil analisis menunjukkan adanya hubungan signifikan antara kebersihan kulit wajah dan kejadian acne vulgaris pada remaja laki-laki di SMAN 1 Pangkalan Koto (Sig. Pearson Chi-Square: 0,021 < 0,05).

Kata kunci: Kebersihan pribadi, kulit wajah, jerawat, remaja laki-laki.

Abstract

Acne is a common problem that often occurs at a young age and is influenced by factors such as climate, hygiene, cosmetic use, age, race, diet, gender, and genetics. This research was conducted at SMAN 1 Pangkalan Koto involving 155 male students. Of these, 111 students (71%) experienced acne problems. The purpose of the study was to assess the relationship between facial skin hygiene (Personal Hygiene) with the incidence of acne vulgaris in adolescent boys at SMAN 1 Pangkalan Koto Baru. The research method used is correlation analytics with a cross-sectional design. The independent variable is personal hygiene, while the dependent variable is the incidence of acne vulgaris. The study sample consisted of male students who had acne vulgaris and met the research criteria. Primary and secondary data were collected through questionnaires. Data analysis was carried out by univariate and bivariate analysis methods. The results showed that around 51.6% of adolescent boys at SMAN 1 Pangkalan Koto Baru experienced moderate acne vulgaris. Their level of personal hygiene was also categorized as moderate, with 69.4% of respondents having a similar level of hygiene. The results of the analysis showed a significant relationship between facial skin hygiene and the incidence of acne vulgaris in adolescent boys at SMAN 1 Pangkalan Koto (Sig. Pearson Chi-Square: 0.021 < 0.05).

Keywords: Personal hygiene, Facial skin, Acne, Teenage boys.

1. INTRODUCTION

Acne (Acne Vulgaris) is an abnormal condition of the skin due to excessive disruption of oil gland production that causes blockage of hair follicles and skin pores resulting in inflammation of the skin. Acne (Acne Vulgaris) is characterized by blackheads, pustules, nodules and papules on the face (El-Tonsy et al., 2018; Tuchayi et al., 2015). Acne inflammation can occur quite heavy and deep so that pus or cyst-filled bumps will form. In the final state, if healed, it will cause scarring in the form of scarring (Khansa et al., 2019; Marwiyah & Pertiwi, 2019). Acne often occurs at a young age and is caused by multi factors including climate, hygiene, cosmetic use, age, race, food, gender and genetics (Okoro et al., 2016; Suppiah et al., 2018).

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Acne Vulgaris is a common problem, especially among teenagers. There is no data on the incidence and risk factors of Acne Vulgaris in the community (Lynn et al., 2016; Sharma et al., 2017). In addition to cosmetic problems, Acne Vulgaris can arise due to several factors such as sebum production, follicular hyperkeratinization, Propionibacterium acnes proliferation, inflammation, and genetics (Putra & Winaya, 2018; Ulfah, 2020). In addition, the lack of maintaining the cleanliness of facial skin and the environment can also cause Acne Vulgaris. Facial skin hygiene can be maintained by improving our Personal Hygiene such as diligently cleaning the bathroom, diligently changing mattresses, sleeping pillowcases, washing your face or facial skin after traveling, after direct contact with sunlight, pollution, after using makeup, and much more. The incidence rate of Acne Vulgaris ranges from 85% and is most at a young age.

In general, the incidence of acne occurs at the age of 14-17 years in women and 16-19 years in men, with predominant lesions being blackheads and papules (Putra & Winaya, 2018; Ulfah, 2020). Personal Hygiene or personal hygiene is the basic concept of hygiene and the first step to maintain personal health, besides that it is also an important part of protection against disease factors in daily life at home and work (Adela & Rosalina, 2022; Handayani & Minerva, 2021). Facial hygiene is hygiene that reduces bacteria or microorganisms from the surface of the skin by reducing sebum and dirt without removing the outer skin layer (De Pessemier et al., 2021; Mijaljica et al., 2022).

Generally, the prevalence of acne is 80-100% in the formation of acne, and of course makes existing acne worse. So, it can be understood, maintaining facial hygiene is one way to clean excess dirt and oil on the face. Cleaning your face regularly and correctly by using the right cleanser is very important, especially those who have oily skin problems and acne (Mutiarra, 2019; Prima, 2018). Based on observations and interviews conducted on new SMAN 1 Pangkalan Koto students from May 17 to 30, 2022. Of the 155 students, 111 male students (71%) had acne problems.

Of the 71% male students who experience acne problems (Acne Vulgaris) maximally have not paid attention to facial skin hygiene (Personal Hygiene), they do not wash their faces regularly 2 times a day, especially after outdoor activities and before going to bed. Based on the description above, the author is interested in researching about: The Relationship of Personal Hygiene of Facial Skin to the Onset of Acne (Acne Vulgaris) in Teenage Boys of SMAN 1 Pangkalan Koto Baru. The author chose high school students because the average person who experiences Acne (Acne Vulgaris) is a teenager age range of 16-19 years in males and is the average age at the High School level.

2. METHODS

This type of research is a correlation analytical method with a cross sectional design. The independent variable of the study is personal hygiene and the dependent variable is the onset of acne vulgaris. The population in this study was male students of SMAN 1 Pangkalan Koto who experienced acne problems. The sample of this study was male students of SMAN 1 Pangkalan Koto who experienced acne problems (Acne Vulgaris) and met the research criteria. The types of research data are primary and secondary. The research instrument is in the form of a questionnaire which is then processed manually with the steps of data examination (editing), data coding (coding), entering data (entry), tabulating data (tabulating), and cleaning data (cleaning) research data analysis techniques namely univariate analysis and bivariate analysis.

3. RESULTS AND DISCUSSION

Result

Description of Acne Vulgaris in Adolescent Boys at SMAN 1 Pangkalan Koto Baru

Table 1. Acne Vulgaris Rate in Adolescent Boys at SMAN 1 Pangkalan Koto Baru

| <i>Acne Vulgaris</i> | <i>Frequency (f)</i> | <i>Percentage (%)</i> |
|----------------------|----------------------|-----------------------|
| Light | 30 | 48.4% |
| Medium | 32 | 51.6% |
| Heavy | 0 | 0% |
| Total | 62 | 100% |

Based on [Table 1](#), it can be seen that of the 62 respondents who were the subjects of this study, there were 30 respondents (48.4%) experiencing Acne Vulgaris with mild conditions, 32 respondents (51.6%) experiencing Acne Vulgaris with moderate conditions, and none (0%) respondents experiencing Acne Vulgaris with severe conditions. So, it can be concluded from the table and diagram above that: teenage boys at SMAN 1 Pangkalan Koto Baru who experience Acne Vulgaris are classified as moderate, because there are 51.6% of respondents in moderate Acne Vulgaris conditions. The onset of acne in adolescent boys at SMAN 1 Pangkalan Koto Baru based on the genetics of respondents can be put forward descriptive analysis of research results such as the following table:

Table 2. The Onset of Acne (Acne Vulgaris) Based on Genetics in Adolescent Boys at SMAN 1 Pangkalan Koto Baru

| Factor | <i>Acne Vulgaris</i> | | | | | | | |
|---------------|----------------------|----------|---------------|----------|--------------|----------|--------------|----------|
| | Heavy | | Middle | | Light | | Total | |
| | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>F</i> | <i>%</i> |
| Genetic | 18 | 29% | 34 | 54.8% | 0 | 0% | 52 | 83.8% |
| Non-Genetic | 0 | 0% | 0 | 0% | 10 | 16.2% | 10 | 16.2% |
| Total | 18 | 29% | 34 | 54.8% | 10 | 16.2% | 62 | 100% |

Based on the [Table 2](#), regarding the onset of acne in adolescent boys at SMAN 1 Pangkalan Koto Baru, it is known that from 62 respondents to the study, 52 respondents (83.8%) experienced acne due to genetic factors and as many as 10 respondents (16.2%) were not genetic factors. The onset of acne due to genetic factors from 52 respondents (83.8%), of whom there were 18 respondents (29%) in severe conditions, as many as 34 respondents (54.8%) in moderate conditions. So it can be concluded from the table and explanation above that: adolescent boys at SMAN 1 Pangkalan Koto Baru who experienced Acne Vulgaris due to genetic factors with moderate conditions, because there were as many as 52 (83.8%) respondents stated that they experienced Acne Vulgaris due to genetic factors, and Acne Vulgaris experienced in moderate conditions, because there were 34 respondents (54.8%) experiencing Acne Vulgaris in moderate conditions. Description of the Level of Personal Hygiene Behavior in Adolescent Boys at SMAN 1 Pangkalan Koto Baru.

Based on the [Table 3](#), regarding Personal Hygiene, it can be seen that of the 62 respondents who were the subjects of this study, there were 20 respondents (30.6%) categorized as good in terms of Personal Hygiene, as many as 43 respondents (69.4%) regarding Personal Hygiene were categorized as moderate. So, it can be concluded from the table and diagram above that: adolescent boys at SMAN 1 Pangkalan Koto Baru in terms of Personal Hygiene are classified as medium, because there are as many as 69.4% of

respondents in terms of Personal Hygiene classified as medium. Relationship of Personal Hygiene of Facial Skin to the Onset of Acne (Acne Vulgaris) in Adolescent Boys at SMAN 1 Pangkalan Koto Baru

Table 3. Level of Personal Hygiene Behavior in Adolescent Boys at SMAN 1 Pangkalan Koto Baru

| <i>Personal Hygiene</i> | <i>Frequency (f)</i> | <i>Percentage (%)</i> |
|-------------------------|----------------------|-----------------------|
| Good | 19 | 30.6% |
| Medium | 43 | 69.4% |
| Bad | 0 | 0% |
| Total | 62 | 100% |

Table 4. The Relationship of Personal Hygiene of Facial Skin to the Onset of Acne (Acne Vulgaris)

| <i>Personal Hygiene</i> | <i>Acne Vulgaris</i> | | | | | | | | <i>p-value</i> |
|-------------------------|----------------------|----------|---------------|----------|--------------|----------|--------------|----------|----------------|
| | <i>Heavy</i> | | <i>Medium</i> | | <i>Light</i> | | <i>Total</i> | | |
| | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>F</i> | <i>%</i> | |
| Good | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0.021 < 0.05 |
| Medium | 0 | 0% | 18 | 29% | 25 | 40.4% | 43 | 69.4% | |
| Bad | 0 | 0% | 14 | 22.5% | 5 | 8.1% | 19 | 30.6% | |
| Total | 0 | 0% | 32 | 51.6% | 30 | 48.4% | 62 | 100% | |

Based on the Table 4, it can be seen that from 62 respondents this research data contained: acne in the sedang category with Personal Hygiene in the sedang category as many as 18 respondents (29%), Acne in the sedang category with Personal Hygiene in the good category as many as 14 respondents (22.5%), Acne in the mild category with Personal Hygiene in the sedang category as many as 25 respondents (40.4%), Acne in the mild category with good Personal Hygiene category as many as 5 respondents (8.1%) in Adolescent Boys at SMAN 1 Pangkalan Koto Baru. The incidence rate of acne in moderate conditions, because there are as many as 51.6% of respondents in the moderate category. The level of Personal Hygiene respondents is at a moderate level, because there are as many as 69.3% of respondents in the medium category.

This study was carried out chi square test analysis, so that the significance value or Sig. Pearson Chi-Square of: 0.021 < 0.05. Decision making to determine whether or not there is a relationship in this study is based on the theory stated by (Chintyawati, 2014) that: If the value of Sig. Pearson Chi-Square < 0.05 then the research data is stated to have a relationship, otherwise If the value of Sig. Pearson Chi-Square > 0.05 then the research data stated that there was no relationship. Based on the theory and the data in this study obtained a Sig. Pearson Chi-Square value of: 0.021 < 0.05, meaning there is a relationship. So, it can be concluded that Ho was rejected, and Ha was accepted, which means: "There is a Significant Relationship between Personal Hygiene of Facial Skin and the Onset of Acne Vulgaris in Adolescent Boys of SMAN 1 Pangkalan Koto."

Discussion

Acne Vulgaris Rate in Adolescent Boys at SMAN 1 Pangkalan Koto Baru Acne is a skin disease that occurs due to inflammation of follicles, folisebace, which is characterized by the presence of blackheads, papules, pustules and nodules at the site of predilection (El-Tonsy et al., 2018; Tuchayi et al., 2015). Based on research obtained from 62 respondents, the highest incidence of acne vulgaris in the "Medium" category is 32 people (51.6%) in

adolescent boys at SMA N 1 Pangkalam Koto Baru. This research is in line with previous research in 2018 concerning the Relationship Between Personal Hygiene of Facial Skin and the Rate of Acne Vulgaris at Al-Munawwir Islamic Boarding School Yogyakarta, the most acne vulgaris category results were the "Medium" category as many as 26 respondents (53.1%) (Widya Graha, 2018). According to ASEAN Grading Lehman in 2003, acne is categorized into 3 levels namely mild, moderate and severe categories. The characteristics of moderate category acne are having a number of closed and open comedones <20-100/perface or the number of inflammatory lesions (papules, nodules and postules) <15-50/perface or the total number of lesions (number of comedones and inflammatory lesions) <30-125 pieces/per face. Meanwhile, based on the Conesus Convergence On Acne Classification, the moderate degree of acne has > 25 comedones, 10-30 postules/papules and > 10 nodules..

In this study, the incidence of acne vulgaris is generally caused by genetic factors and personal hygiene. In genetic factors, there were 52 respondents with mild acne categories as many as 18 people (29%), moderate acne which was 34 people (54.8%). Previous research stated that acne vulgaris can be influenced or occur due to several factors including genetic and personal hygiene factors, genetic factors that are related to a person's age range and hereditary factors, and Personal Hygiene is self-care carried out to maintain health both physically and psychologically (Pangestu et al., 2021; Siregar et al., 2017; Syahputra et al., 2021). Level of Personal Hygiene Behavior in Adolescent Boys at SMAN 1 Pangkalan Koto Baru Personal hygiene is an action to maintain one's hygiene and health for physical and psychological well-being (Luthfa & Nikmah, 2019; Marga, 2020). Based on research that the level of personal hygiene of adolescent boys at SMA N 1Pangkalan Koto Baru in the "Medium" category was 43 respondents (69.4%). This research is in line with research conducted by Widya Pintaka Septa Graha in 2018 concerning the Relationship Between Personal Hygiene of Facial Skin and the Rate of Acne Vulgaris at Al-Munawwir Islamic Boarding School Yogyakarta with the most personal hygiene results in the medium category as many as 31 respondents (63.2%).

According to Putra & Winaya in 2018, personal hygiene factors occur due to a lack of awareness that has not been formed in a person about the importance of maintaining personal hygiene for one's own health (Putra & Winaya, 2018; Ulfah, 2020). The purpose of personal hygiene is to maintain one's personal hygiene, improve the degree of health and create individual beauty so as to prevent disease in oneself and others (Haque et al., 2014; Hennegan & Montgomery, 2016; Purnama, 2021). According to Ismail, in 2018 stated that men tend not to pay attention to their appearance and will affect personal hygiene care, while women tend to take care of themselves and maintain appearance. Efforts to maintain personal hygiene include the cleanliness of hair, eyes, ears, teeth, mouth, skin, nails and cleanliness in clothing.

Personal Hygiene or maintaining cleanliness on facial skin can remove dirt, remnants of makeup or cosmetics, remove dead skin cells by doing facial cleansing 2-3x a day with the aim of avoiding acne or clogged pores (Ali et al., 2022; Ramadhanty & Hamid, 2021; Wulandari et al., 2022). The Relationship of Personal Hygiene of Facial Skin to the Onset of Acne (Acne Vulgaris) in Adolescent Boys at SMAN 1 Pangkalan Koto Baru Acne Vulgaris is known to be caused by many factors, one of which is personal hygiene. Personal hygiene is an important factor that needs to be maintained as an effort to prevent the onset of Acne Vulgaris. There are many things that can be done about hygiene behavior or personal hygiene including cleanliness in hair, ears, eyes, fingernails and feet, skin, and cleanliness in clothing. The concept of hygiene behavior towards skin hygiene is one example of facial skin hygiene. Personal Hygiene of poor facial skin is one of the causes of Acne Vulgaris. In this study, people who have moderate personal hygiene experience more acne (Mild and Moderate) compared to good personal hygiene (Pane et al., 2022; Rosidah, 2018). Based on this study, it

is known that there is a significant relationship between facial skin personal hygiene and the onset of acne vulgaris in adolescent boys of SMA N 1 Pangkalan Koto Baru with a significance value of $0.021 < 0.05$, so that researchers can conclude a meaningful relationship between facial skin personal hygiene and the onset of acne vulgaris in adolescent boys of SMA N 1 Pangkalan Koto Baru with a positive direction. In this study also found personal hygiene in the prevention of acne vulgaris, especially in skin hygiene, in preventing acne things that can be done is cleaning the face regularly a maximum of 2x a day can reduce excess oil and remove dead skin cells on the face, dry the face with a special towel and change clothes regularly. The concept of Personal Hygiene, especially on facial skin, is important for every individual to maintain cleanliness (Pane et al., 2022; Zanin et al., 2017).

4. CONCLUSION

Acne Vulgaris in adolescent boys at SMAN 1 Pangkalan Koto Baru is classified as moderate, because there are 51.6% of respondents in moderate Acne Vulgaris conditions. Personal Hygiene of adolescent boys at SMAN 1 Pangkalan Koto Baru is classified as medium, because the data obtained there are 69.4% of respondents in terms of Personal Hygiene categorized as medium. There is a Significant Relationship between Personal Hygiene of Facial Skin to the Onset of Acne Vulgaris in Adolescent Boys of SMAN 1 Pangkalan Koto.", because the value of Sig. Pearson Chi-Square is: $0.021 < 0.05$, which means there is a relationship.

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