



Analysis of Factors Related to the Incidence of Fluoride Albus in Adolescent Girls at State Junior High School 1 Tilago, Gorontalo Regency

Wanda Djaba¹, Sirajuddin Bialangi², Nikmatisni Arsad²

^{1,2,3}Jurusan Kesehatan Masyarakat, Fakultas Olahraga dan Kesehatan, Universitas Negeri Gorontalo

*Author Correspondence: wandadjaba@gmail.com

Article Info

Article history:

Received 11 Mar, 2026

Revised 14 May, 2026

Accepted 25 May, 2026

Keywords:

Fluoridation albus,
adolescent girls, attitudes,
personal hygiene of
reproductive organs,
parental support

ABSTRACT

The World Health Organization (WHO) reports that about 33% of the burden of diseases experienced by women in the world is related to reproductive health problems. In Indonesia, around 90% of women are at risk of developing fluoride albus. Fluorine albus or vaginal discharge is one of the reproductive health problems often experienced by adolescent girls. This study aims to analyze factors related to the incidence of fluoride albus in adolescent girls. This study uses a quantitative design with a cross sectional approach. The population amounted to 83 young women with a sample of 69 respondents selected using purposive sampling techniques. Data analysis using the Chi-Square test as well as the alternative test Fisher's Exact Test. The results showed that there was a significant relationship between attitudes towards reproductive health ($p = 0.008$), personal hygiene of reproductive organs ($p = 0.000$), and parental support ($p = 0.000$) with the incidence of fluorine albus ($p < 0.05$). There was a significant relationship between attitudes, personal hygiene of reproductive organs and parental support with the incidence of fluoride albus in adolescent girls. It is hoped that schools, health workers, and parents can increase education and coaching related to reproductive health to prevent the occurrence of pathological fluorine albus.

INTRODUCTION

Adolescence is a transition phase from children to adults that is characterized by physical, psychological, and social changes that take place rapidly. One of the major changes in adolescent girls is the maturation of the reproductive system which is affected by an increase in the hormones estrogen and progesterone. This process is characterized by the appearance of secondary sexual characteristics as well as reproductive functions such as menstruation and ovulation. Although it is a normal physiological process, these changes make adolescent girls more susceptible to various reproductive health problems, especially due to limited knowledge and ability to maintain the cleanliness of the reproductive organs.

Reproductive health problems are still a significant global issue. World Health Organization (WHO) data shows that about 33% of the burden of disease in women is related to reproductive health. One of the most common complaints experienced by women, including adolescent girls, is fluorine albus (vaginal discharge). Fluoride albus can be physiological as part of the body's normal mechanisms, but it can also be pathological if accompanied by discoloration, unpleasant odor, and itching that indicate an infection or disorder in the reproductive system.

In Indonesia, around 90% of women are at risk of developing fluoride albus, with the prevalence in adolescent girls aged 14–24 years reaching 31.8%. The high number is influenced by humid tropical climate conditions, thus supporting the growth of microorganisms that cause infection. This shows that adolescent girls are a group that is susceptible to the occurrence of fluoride albus, both physiological and pathological. The incidence of fluoride albus in adolescent girls is not only influenced by biological factors, but also behavioral and environmental factors. Attitudes towards reproductive health are one of the important factors that affect adolescents' awareness in maintaining the cleanliness of the female organs. Adolescents with poor attitudes, such as considering the topic of reproduction as taboo, tend to pay less attention to symptoms and do not carry out proper treatment.

In addition, personal hygiene of the reproductive organs has a very important role in preventing fluoride albus. Habits such as properly cleaning the genital area, changing underwear regularly, maintaining hygiene during menstruation, and wearing appropriate clothing can help prevent the growth of infection-causing microorganisms. Conversely, poor hygiene practices can increase the risk of pathological fluoride albus. Parental support is also an important factor in shaping adolescent behavior. The role of parents in providing information, guidance, facilities, and emotional support can increase adolescents' understanding and awareness in maintaining reproductive health. Lack of parental support has the potential to lead to low knowledge and improper care behavior. The results of initial observations at SMPN 1 Tilago, Gorontalo Regency showed that most of the students had experienced fluoride albus, with a variety of symptoms, both physiological and pathological. In addition, there are still less than optimal personal hygiene habits and a lack of parental support in providing reproductive health education. This condition shows that the incidence of fluoride albus in adolescent girls is influenced by various interrelated factors. Based on this description, this study aims to analyze the relationship between attitudes, personal hygiene of reproductive organs, and parental support with the incidence of fluoride albus in adolescent girls at SMPN 1 Tilindo, Gorontalo Regency. This research is expected to contribute to efforts to prevent reproductive health problems in adolescents from an early age.

METHODS

This study is a quantitative analytical research with a cross-sectional design. The research was conducted at SMP Negeri 1 Tilago, Gorontalo Regency from January 20 to February 13, 2026. The population in this study is all adolescent girls at SMP Negeri 1 Tilago as many as 83 students. The sample was determined using the Slovin formula with an error rate of 5% so that a sample number of 69 students was obtained. The sampling technique used was purposive sampling based on inclusion criteria, namely female students who had menstruated and were willing to become respondents, and exclusion criteria, namely female students who were not present during the research. Data collection was carried out once (one time measurement) using an online questionnaire (Google Form). The variables in this study consisted of independent variables, namely attitude, personal hygiene of reproductive organs, and parental support, as well as dependent variables, namely the incidence of fluoride albus. The research instrument used standard questionnaires that had been used in previous studies, including attitude questionnaires (15 items), personal hygiene of reproductive organs (20 items), parental support (25 items), and fluoride albus incidence (8 items with yes/no answers). The type of data used is primary data obtained directly from respondents through filling out questionnaires, as well as secondary data obtained from related sources such as school data and previous research references. Data analysis was carried out univariate and bivariate using the Chi-Square test or Fisher's Exact Test to determine the relationship between independent variables and dependent variables.

RESULTS AND DISCUSSION

SMPN 1 Tilago is one of the public junior high schools under the auspices of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia and functions as a formal educational institution for adolescent students. The location of the school is in residential areas and can be easily reached by the surrounding community, thus supporting the implementation of educational and research activities. State Junior High School (SMPN) 1 Tilago which is located in Ilotidea Village, Tilago District, Gorontalo Regency, Gorontalo Province. This school was established on December 13, 2008 based on the Decree of the Minister of National Education Number 375/01.1/IV/2008.

Univariate

Table 1 Frequency Distribution of Respondents by Age

Teenage	Frequency (n)	Percentage (%)
10-14	50	72,5
15-19	19	27,5
Total	69	100

Source: Primary Data, 2026

Based on the data in table 1 on the characteristics of respondents based on adolescent age, out of 69 respondents, 50 respondents (72.5%) were in the age group of 10–14 years and 19 respondents (27.5%) were in the age group of 15–19 years.

Table 2 Frequency Distribution of Respondents by Class

Classes	Frequency (n)	Percentage (%)
VII (7)	15	21,7
VIII (8)	28	40,6
IX (9)	26	37,7
Total	69	100

Source: Primary Data, 2026

Based on the data in table 2 on the characteristics of respondents by class, of the 69 respondents, 15 respondents (21.7%) were in class VII, 28 respondents (40.6%) were in class VIII, and 26 respondents (37.7%) were in class IX.

Table 3 Distribution of Frequency of Adolescent Women's Attitudes to Reproductive Health

Attitude	Frequency (n)	Percentage (%)
Less good	8	11,6
Good	61	88,4
Total	69	100

Source: Primary Data, 2026

Based on the data in table 3 on the frequency distribution of adolescent girls' attitudes towards reproductive health, out of 69 respondents, 61 respondents (88.4%) had a good attitude and 8 respondents (11.6%) had a good attitude.

Table 4 Frequency Distribution of Personal Hygiene Reproductive Organs of Adolescent Girls

Personal Hygiene Reproductive Organs	Frequency (n)	Percentage (%)
Less good	20	29,0
Good	49	71,0
Total	69	100

Source: Primary Data, 2026

Based on the data in Table 4 on the distribution of the frequency of personal hygiene of reproductive organs of adolescent girls, of the 69 respondents, there were 49 respondents (71.0%) who had personal hygiene of the reproductive organs in the good category and 20 respondents (29.0%) in the poor category.

Table 5 Frequency Distribution of Parental Support

arent Support	Frequency (n)	Percentage (%)
Less good	18	26,1
Good	51	73,9
Total	69	100%

Source: Primary Data, 2026

Based on the data in Table 5 on the distribution of the frequency of parental support, out of 69 respondents, 51 respondents (73.9%) received parental support in the good category and 18 respondents (26.1%) in the poor category

Table 6 Frequency Distribution of Fluorine Albus Occurrence

The Occurrence of Flour Albus	Frequency (n)	Percentage (%)
Pathological	29	42
Physiological	40	58
Total	69	100%

Source: Primary Data, 2026

Based on the data in Table 6 on the distribution of the frequency of fluoride albus events, of the 69 respondents, there were 40 respondents (58%) who experienced physiological fluoride albus and 29 respondents (42%) experienced pathological fluoride albus.

Bivariate

Table 7 Relationship of Adolescent Women's Attitudes to Reproductive Health with the incidence of Fluoride Albus

Attitude	The Occurrence of Flour Albus						P-Value
	Pathological		Physiological		Total		
	n	%	n	%	n	%	
Less good	7	87,5	1	12,5	8	100,0	0,008
Good	22	36,1	39	63,9	61	100,0	
Total	29	42,0	40	58,0	69	100,0	

Source: Primary Data, 2026

Based on Table 7, it is known that out of 69 respondents, in the group of adolescent girls with poor attitudes experienced the incidence of pathological flour albus, namely 7 people (87.5%) and only 1 person (12.5%) experienced physiological flour albus. Meanwhile, in adolescent girls with a good attitude, more people experienced physiological albus flour, namely 39 people (63.9%), compared to 22 people (36.1%) who experienced pathological problems. The results of the statistical test obtained The chi-square test stated that there were 2 cells (50.0%) with an expected count value of <5 so that it was followed by the exact fisher test with a significance value (p-value) = 0.008 (< 0.05)

Table 8 Relationship between personal hygiene of adolescent girls' reproductive organs and the incidence of Fluoride Albus

Personal Hygiene Reproductive Organs	The Occurrence of Flour Albus						P-Value
	Pathological		Physiological		Total		
	n	%	n	%	n	%	
Less good	19	95,0	1	5,0	20	100,0	0,000
Good	10	20,4	39	79,6	49	100,0	
Total	29	42,0	40	58,0	69	100,0	

Source: Primary Data, 2026

Based on Table 8, it is known that out of 69 respondents, the proportion of pathological fluoride albus incidence is higher in adolescent girls with poor personal hygiene, which is 95.0% (19 people) compared to those who have good personal hygiene of 20.4% (10 people). On the other hand, adolescent girls with good personal hygiene experienced more physiological fluoride, which was 79.6% (39 people) compared to those with poor personal hygiene only 5.0% (1 person). Based on the results of the statistical test, the value (p-value) = 0.000 (< 0.05) was obtained.

Table 9 Relationship of Parental Support to Fluoride Albus incidence

Parent Support	The Occurrence of Flour Albus						P-Value
	Pathological		Physiological		Total		
	n	%	n	%	n	%	
Less good	15	83,3	3	16,7	18	100,0	0,000
Good	14	27,5	37	72,5	51	100,0	

Parent Support	The Occurrence of <i>Flour Albus</i>						<i>P-Value</i>
	Pathological		Physiological		Total		
	n	%	n	%	n	%	
Total	29	42,0	40	58,0	69	100,0	

Source: Primary Data, 2026

Based on Table 9, it is known that out of 69 respondents, most young women received poor parental support, namely 15 people (83.3%) compared to those who received good support of 14 people (27.5%). On the other hand, adolescent girls with good parental support experienced more physiological fluoride, which was 37 people (72.5%) compared to only 3 people (16.7%) with poor support. The results of statistical analysis showed significance value (p -value) = 0.000 (< 0.05)

The Relationship of Adolescent Women's Attitudes to Reproductive Health with the Incidence of Fluor Albus

Based on Table 7, of the 69 respondents in the group of young women with good attitudes, it was found that as many as 39 respondents (63.9%) experienced Fluorescent albus physiological. This shows that most adolescents with good attitudes tend to experience the condition Fluorescent albus which is still normal. This condition reflects that a good attitude plays a role in encouraging behavior to maintain the cleanliness of the reproductive organs so that they are able to maintain normal physiological conditions. This research is in line with (Dewi, 2025) where respondents' attitudes towards reproductive health on prevention Fluorescent albus is relatively good, which is (98.7%). This shows that adolescents have a good view of efforts to maintain the cleanliness of the reproductive organs and support preventive behaviors Fluorescent albus, although not yet fully followed by the implementation of real behavior.

The findings of this researcher show that adolescent girls' attitudes towards reproductive health have an important role in determining the type of fluorine albus incident experienced. Adolescents with a good attitude tend to pay more attention to the cleanliness of the reproductive organs, understand the factors that cause fluoride albus, and have the willingness to carry out preventive behaviors so that they experience more normal physiological fluoride.

The results of this study indicate that adolescent girls with a good attitude are able to integrate reproductive health values into daily life, such as maintaining the cleanliness of the genital area, changing underwear regularly, avoiding wearing tight pants for a long time, and paying attention to abnormal signs in the reproductive organs. This is in accordance with the concept of affective domain according to Krathwohl, where attitudes consist of stages of acceptance, response, appreciation, organization, and characterization of values reflected in daily lifestyles.

According to researchers, good attitudes towards reproductive health reflect the awareness and responsibility of adolescent girls towards their own body conditions. This attitude is the basis for the formation of healthy behavior, so that adolescents are better able to prevent disorders in the reproductive organs. On the contrary, poor attitudes reflect low attention to reproductive health which has an impact on increasing the risk of pathological fluorine albus.

Based on research (Maryland, 2021), aspects of attitudes include acceptance, responding, appreciating, self-organizing, and value characterization. Respondents with a good attitude showed awareness and sensitivity to the importance of reproductive organ hygiene, had the willingness to take preventive measures Fluorescent albus, and being able to make the value of reproductive health part of daily life habits. This condition has an impact on the low incidence Fluorescent albus pathological.

In addition, there were still 22 respondents (36.1%) with a good attitude but experienced Fluorescent albus pathological. This shows that even though the attitude is good, there are other factors that can affect the incident Fluorescent albus, such as hormonal factors, stress, fatigue, antibiotic use, and environmental influences. This is in line with research (Coal, 2022) which states that the occurrence Fluorescent albus Not only is it influenced by attitudes, but also by other factors such as hormonal and one of them is stress, where respondents experience moderate levels of stress will increase the risk of occurrence Fluorescent albus as much as 3.13 times larger.

Then in the group of young women with poor attitudes, it was found that 7 respondents (87.5%) experienced pathological fluorine albus. These findings show that the proportion of pathological events is more dominant in the group with poor attitudes. This is related to the lack of concern for the cleanliness of the reproductive organs, low awareness in prevention, and the lack of consistent clean and healthy living behaviors. This poor attitude leads to non-optimal hygiene behavior, increasing the risk of pathological fluorine albus. On the other hand, there was 1 respondent (12.5%) who had a poor attitude towards reproductive health but experienced physiological fluoride.

According to the researcher, respondents with a poor attitude but experiencing physiological fluoride albus showed that fluoride albus was a multifactorial condition. Although it is still physiological, this condition still has the potential to develop into pathology if attitudes towards reproductive health are not improved and not accompanied by increased awareness in maintaining the health of the reproductive organs in a sustainable manner.

The results of the statistical test showed a significance value (p -value) = 0.008 (< 0.05) which means that there is a significant relationship between adolescent girls' attitudes towards reproductive health and the incidence of

Fluorescent albus. These findings are in line with research (Destariyani et al., 2023) which states that the attitude towards the incident Fluorescent albus Shows value $p\text{-value}=0.016$ which means that there is a relationship between attitudes towards the incidence of vaginal discharge in adolescent girls in Bengkulu City.

The relationship between personal hygiene of adolescent girls' reproductive organs and the incidence of fluoride albus

Based on Table 8, out of 69 respondents, there were 49 young women who had Personal Hygiene reproductive organs in the good category, it was found that as many as 39 respondents (79.6%) experienced Fluorescent albus physiological. This shows that most adolescents with Personal Hygiene those who are good tend to experience those who are still in normal conditions This finding is the same as the research conducted by (Rahmadayanti et al., 2020) shows that Personal Hygiene The reproductive organs have a very important role in determining the type of event Fluorescent albus in young women. Teens with Personal Hygiene Good people tend to be able to maintain the cleanliness of the feminine area, pay attention to body hygiene in general, and apply healthy habits during menstruation so that they experience more Fluorescent albus physiological. This is shown by the respondent's statement that he always washes his genitals from the front (vagina) to the back (anus), shaves pubic hair in the vaginal area, and washes his hands before touching the female area and does not use antiseptics.

Personal hygiene Good reflects the behavior of maintaining the cleanliness of the reproductive organs correctly, such as cleaning the feminine area in the right direction, changing underwear regularly, choosing underwear materials that absorb sweat, and maintaining cleanliness during menstruation. Flour albus usually associated with menstrual conditions, at the time after menstruation will result in Flour Albus which occurs normally to clean intimate organs, according to the results of the research conducted by the researcher, the average respondent experienced Flour Albus after menstruation (Rakhmawati, 2019). This habit helps maintain balance Flora normal vaginal and prevents the growth of pathogenic microorganisms Fluorescent albus pathological.

There are still 10 respondents (20.4%) with Personal Hygiene good yet experienced Fluorescent albus pathological. This shows that the event Fluorescent albus not only influenced by Personal Hygiene but it can also be influenced by other factors such as hormonal changes, stress, fatigue, antibiotic use, and environmental conditions. These factors can trigger an imbalance Flora normal vagina even though hygiene habits are already relatively good. Fluoride albus that is often experienced by adolescent girls normally can be caused by Hormones extrogens and abnormal ones caused by infection/inflammation. Often adolescents experience Fluorescent albus Due to the lack of knowledge about reproductive health, it is necessary to improve efforts to better understand personal hygiene (Siti Istiana & Janah, 2021).

According to researchers, adolescent girls who have good personal hygiene but still experience pathological fluoride albus because they are not consistent in implementing optimal hygiene behaviors or have other risk factors that cannot be fully controlled. Therefore, reproductive health education efforts are needed that not only emphasize knowledge, but also on the formation of clean and healthy habits in a sustainable manner.

On the other hand, in the group of adolescent girls with poor personal hygiene, they experienced pathological fluoride albus, which was as many as 19 respondents (95.0%). These findings show that the incidence of pathological fluoride albus is more commonly found in adolescents with poor personal hygiene, such as rarely changing underwear, using improper sanitary pads, and not paying attention to the cleanliness of the genital area. In the study (Lailani & Yuliastuti, 2025), the use of pantyliner too often, especially for more than 4 hours without being replaced, can create humid conditions that are an ideal medium for the growth of pathogenic fungi and bacteria. Especially if used in a non-menstrual state just for a sense of cleanliness, it actually increases the risk of pathological fluoride albus if cleanliness is not maintained.

Antiseptic soaps with a high content of active substances can damage the normal floral balance of the vagina. Lactobacillus, the good bacteria that protect the vagina, will decrease if the genital area is cleaned too often with an antiseptic. This makes the vagina more susceptible to bacterial and fungal infections that cause pathological fluorine albus (Dwi et al., 2021).

Then there was 1 respondent (5.0%) with poor personal hygiene but experiencing physiological fluoride. This can be caused by certain physiological conditions that are still within normal limits, such as hormonal influences during puberty or before menstruation. However, this condition still has the potential to develop into pathology if personal hygiene behavior is not improved.

The results of the statistical test show a significance value ($p\text{-value}$) = 0.000 (<0.05) which means that there is a significant relationship personal hygiene of the reproductive organs and the incidence Fluorescent albus. This research is in accordance with (Nor Acyeanir & Mappedboki, 2021) with test statistical results Chi-Square There is a value of $p = 0.03$ with a confidence level of 95% (0.05), in $p\text{-value}$ (0.03) $<(0.05)$ suggests that there is a significant relationship between Personal Hygiene with events Fluorescent albus in grade XI girls at SMK Laniang Makassar. Therefore, this study emphasizes the importance of health promotion and education about Personal Hygiene reproductive organs in adolescent girls as an effort to prevent reproductive health disorders from an early age.

The Relationship of Parental Support to the Incidence of Fluor Albus

Based on the results of the study in Table 9 of the 69 respondents in the group of young women who received parental support in the good category, it was found that as many as 37 respondents (72.5%) experienced Fluorescent albus physiological. This shows that most adolescents with good parental support tend to experience fluoride albus which is still in normal condition. This condition reflects that parental support plays a role in shaping good reproductive health behaviors so that they are able to maintain physiological conditions. The results of this study are in line with the research (Nabila et al., 2020) Adolescent girls with good parental support generally have good genital hygiene and reproductive health because parental knowledge and support are one of the factors that affect a person's behavior in maintaining cleanliness.

The role of parents in providing information, motivation, and supervision of the cleanliness of the reproductive organs is an important factor in shaping adolescent health behavior. Parents who actively remind, guide, and provide hygiene support facilities help adolescents implement a healthy lifestyle consistently. This condition contributes to the low incidence Fluorescent albus pathological. In research (Mitaba et al., 2024) explained that parents have a great influence on the practice of external genitalia care, which means adolescents who get information from their parents regarding how to care for external genitalia organs. In this case, the mother plays an important role in the family environment as a source of information about Personal Hygiene To maintain genital hygiene, there needs to be information support and guidance from parents, especially mothers as the closest people who have the same gender as adolescent girls.

On the other hand, there were still 14 respondents (27.5%) with the support of good parents but experienced pathological fluoride albus. This shows that the incidence of fluoride albus is not only influenced by parental support, but also by other factors such as hormonal changes, stress, environmental conditions, and an individual's immune system. According to researchers, adolescent girls who have received good parental support but still experience pathological fluoride albus are influenced by other factors that cannot be completely controlled or have not been consistent in implementing clean and healthy living behaviors. There are also adolescent girls with poor parental support but experience physiological fluoride.

On the other hand, in the group of adolescent girls with poor parental support, the majority of respondents experienced pathological fluoride albus, namely as many as 15 respondents (83.3%), this occurs when adolescents do not obtain adequate information about the correct way to care for the reproductive organs. Lack of communication about reproductive health can also cause adolescents to neglect personal hygiene, increasing the risk of health problems such as pathological fluoride albus. However, there are still a number of adolescent girls who have received good parental support but still experience pathological fluoride albus. This indicates that the incidence of fluoride albus is not solely influenced by parental support factors, but also by other factors such as hormonal changes, stress levels, environmental conditions, and individual immunity. On the other hand, there were 3 respondents (16.7%) with poor parental support but experienced physiological fluoride. This condition can be caused by physiological factors such as hormonal changes during puberty or before menstruation that is still within normal limits.

The results of the statistical analysis show the significance value (p -value) = 0.000 (<0.05) which means there is a meaningful relationship between parental support and incidence Fluorescent albus in young women. The results of this study are in accordance with the research (Kurnia & Az, 2018) about the relationship of the Role of Parents to Vaginal Discharge in Adolescent Girls of SMAS Pertiwi Jambi City in 2018, based on the results of the study, the results of the statistical test obtained a score p -Value = 0.006 then it can be concluded that statistically at alpha 5% means that there is a significant relationship between the role of parents and the incidence Fluorescent albus.

These findings indicate that the role of parents is very important for adolescents so that their health can be maintained, especially the health of the reproductive organs. Parental support is a motivation for their children to live a healthy life. The support provided by parents to their children greatly affects the child's health status. It is hoped that with the role of parents, adolescents can control themselves to live a healthy life and avoid various diseases of the reproductive organs, especially Fluorescent albus abnormal (Kurnia & Az, 2018).

In research (Aprilia et al., 2025) It was found that parental support in daily life plays a role in shaping adolescent girls' health attitudes and behaviors. Young women who have good parental support tend to be better able to understand and implement preventive measures Fluorescent albus pathological. According to researchers, good parental support reflects family involvement in the process of forming healthy behaviors in adolescent girls. This involvement is not only in the form of providing information, but also in the form of emotional attention and the provision of facilities that support personal hygiene. Thus, the risk of Fluorescent albus pathological can be minimized.

CONCLUSION

There was a significant relationship between attitudes, personal hygiene of reproductive organs, and parental support with the incidence of fluoride albus in adolescent girls at SMP Negeri 1 Tilago, Gorontalo Regency.

REFERENCES

- Aprilia, D., Kofifah, N., Yunariyah, B., Jannah, R., Triana, W., Studi, P., Program, K., Tiga, D., Poltekkes, T., Surabaya, K., Putri, R., & Pathological, F. A. (2025). Prevention of Pathological Fluorine Albus in SMAN 3 Tuban. *Journal of Health Sciences Mandira Cendikia*, 234–241.
- Coal, A. R. (2022). Factors Related to the Event of Vaginal Discharge (Flour Albus) in Adolescent Women in the Modern Islamic Boarding School Al-Zahrah Bireuen Factors Related to the Event of Vaginal Discharge (Flour Albus) in Adolescent Women in the Modern Islamic Boarding School. *Journal of Healthcare Technology and Medicine*, 8(2), 1435–1446.
- Destariyani, E., Dewi, P. P., & Wahyuni, E. (2023). The Relationship between Knowledge and Attitude with Vaginal Discharge in Adolescent Women in Bengkulu City. *Scientific Journal of Midwifery*, 11(1), 58–63.
- Dewi, N. I. (2025). The relationship between adolescent girls' knowledge and attitudes about reproductive health in the prevention of vaginal discharge (flour albus). <https://repository.ubt.ac.id/repository/UBT02-12-2025-103841.pdf>
- Kurnia, W., & Az, S. (2018). Identify the Factors That Cause Vaginal Discharge in Adolescent Girls. *Scientia Journal*, 8(1), 263-269.
- Maryland, D. A. D. W. (2021). An overview of the attitude of adolescent girls about the incidence of vaginal discharge at SMP NEGERI 1 Gianyar. *Repository Itikes Bali*.
- Mitaba, T., Suminar, M., Kartikasari, R. F., & Satya, U. I. (2024). The relationship between family support and vulvar hygiene behavior in adolescent girls. *STIKes IMC Bintaro Health Journal*, VII, 91–98.
- Nabila, H., Budiono, D. I., A, M. I. A., Midwifery, P. S., Medicine, F., Airlangga, U., Obstetrics, D., Medicine, F., & Airlangga, U. (2020). Factors of the level of knowledge and family support for genitalia hygiene behavior in Semarang City. *Indonesian Midwifery and Health Sciences Journal*, 4(4), 362–373. <https://doi.org/10.20473/imhsj.v4i4.2020.362-373>
- Nor Acyeansir, D., & Mappeboki, S. (2021). The Relationship between Personal Hygiene and the Incidence of Fluorine Albus. 1, 387–392.
- Rahmadayanti, A. M., Rahmadayanti, A. M., & Sari, M. H. (2020). The Relationship of Vulva Hygiene and Toilet Paper Use to Reduce the Incidence of Fluoride Albus (Vaginal Discharge) in Adolescent Women. *Abdurahman Health Journal Palembang*, 9(2), 33–40.
- Rakhmawati, D. (2019). The Relationship between the Level of Knowledge of Adolescent Girls about Vulva Hygiene and the Incidence of Vaginal Discharge in Class XI at MAN Lumajang, Lumajang Regency. *Journal of MID-Z (Midwifery Zygote) Scientific Journal of Midwifery*, 2(1), 37–43.
- Siti Istiana, L. Mulyanti, & Janah, A. (2021). Health Education about Vulva Hygiene in Women of Childbearing Age in Teseh Hamlet, Meteseh Village, Tembalang District. *Journal of Midwifery Community Service*, 3(2), 39–44.