Jurnal Riset Rumpun Ilmu Kesehatan
Volume 4, Nomor 2, Agustus 2025
e-ISSN: 2828-9374; p-ISSN: 2828-9366, Hal. 316-331
DOI: https://doi.org/10.55606/jurrikes.v4i2.5502
Available Online at: https://prin.or.id/index.php/JURRIKES

Model of Prevention of Vaginal Discharge in Adolescents Based on Determinants of Health Literacy

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Abstract. The impact of vaginal discharge is very fatal if it is slow to be treated, not only can it lead to infertility and pregnancy outside the womb due to blockage of the fallopian tubes, vaginal discharge can also be an early symptom of uterine cancer which can lead to death. The purpose of the study was to produce a model and determine the most influential factors on health literacy in preventing vaginal discharge in adolescents. This type of research is quantitative with a cross sectional research design. The population of this study were all adolescents in Puspasari Village, Bogor Regency. The research sample amounted to 90 people. Determination of sample size using purposive sampling. Research data collection using a questionnaire. The results showed that there was an influence of health promotion by 21.42%, the role of midwives by 22.66%, family function by 16.88%, social environment by 11.04% and self efficacy by 9.65% on health literacy in preventing vaginal discharge in adolescents. Based on the R-Square value, the direct effect of health promotion, the role of midwives, family function, social environment and self efficacy on health literacy in preventing vaginal discharge in adolescents is 81.65% while 18.35% is explained by other variables not studied. It is hoped that the role of health workers in providing counseling related to the prevention of vaginal discharge, such as making breakthroughs for the renewal of vaginal discharge prevention.

Keyword: Health Literacy, Vaginal Discharge, Adolescents.

1. INTRODUCTION

Normal vaginal discharge is a natural thing. However, abnormal vaginal discharge can be a clue to a disease that must be treated. The WHO states that 5% of adolescents in the world contract sexually transmitted diseases (STDs) with symptoms of vaginal discharge each year, even this incident occurs in 1 in 8 adolescents in the United States. In some developing countries, women's vulnerability to infection in the form of vaginal discharge is exacerbated by the low social status of women and very limited means of prevention against infection (Rao & Mahmood, 2020). About 75% of women in the world have experienced vaginal discharge at least once in their lifetime. The total number of women in the world in 2023 was 6.7 billion and those who had experienced vaginal discharge were about 75%, while European women in 2013 were 739,004,470 and those who experienced vaginal discharge were 25% (Alenizy et al., 2024).

Received: April 15, 2025; Revised: May 17, 2025; Accepted: June 08, 2025; Online Available: June 16, 2025

In Indonesia about 90% of women have the potential to experience vaginal discharge because Indonesia is a tropical climate, so fungi are easy to grow and develop which results in many cases of vaginal discharge in Indonesian women. Indonesian women in 2023 amounted to 237,641,326 people and those who experienced vaginal discharge amounted to 75%. The prevalence of vaginal discharge in adolescent girls in Indonesia is 21.7%, including in urban areas by 20.6% and in rural areas by 22.8. The results of research in Bogor Regency in 2023 showed that out of a total of 1.6 million women, 72% of them were adolescents who experienced physiological vaginal discharge, 8% pathological discharge and 20% of adolescent girls had never experienced vaginal discharge (Hulkarimah et al., 2024).

Adolescence will experience puberty which is characterized by menstruation. Adolescence will be known as a period of storm and stress where there is emotional upheaval accompanied by rapid physical growth and varied psychological growth. Personal hygiene comes from the Greek personal which means individual and hygiene means healthy (Widiarti et al., 2023). Personal hygiene is an action to maintain one's cleanliness and health for physical and psychological well-being. Personal hygiene is an action to maintain cleanliness and health in the female area to prevent vaginal discharge (Sim et al.,2020).

Vaginal discharge (leukorhea, white discharge or flouralbus) is a symptom in the form of fluid secreted from the genital organs that is not blood. This discharge is a faecal condition of the female genital tract. The entire surface of the female genital tract has the ability to secrete fluid in the form of saturated, colorless and odorless lender. Adolescence is the most complex phase of development with all its problems. The most important phase for adolescents is puberty, which for adolescent girls is characterized by the maturity of the reproductive organs (Agana et al., 2019). The maturity of reproductive organs will be a trigger factor for flour albus for adolescent girls, especially before and after menstruation. The secretion of physiological vaginal discharge can be liquid like water or sometimes slightly slimy, generally the discharge is small, clear, odorless and not itchy. Whereas abnormal vaginal discharge caused by infection is usually accompanied by itching inside the vagina and around the outer vaginal lips, often accompanied by a foul odor, and causes pain during micturition or intercourse (Ghaddar et al., 2020).

Efforts that must be considered in order to avoid vaginal discharge are to keep the area around the genitals clean, how to rinse the genitals must be done correctly, namely towards the back, do not use dirty rinse water, occasionally use warm water to rinse the vagina, avoid using underwear that is too tight and use underwear made of cotton, also avoid changing underwear

with other people, reduce consuming sweet foods and do not change other people's underwear. If prevention is not taken, it can lead to vaginal discharge (Gweda et al., 2021). Prevention of vaginal discharge in adolescents can be done by using antiseptic or by drinking herbal medicine if vaginal discharge is felt to have greatly interfered with daily activities. Some prevention has also been done for example by diligently changing underwear and frequent toilet habits for adolescent girls who are uncomfortable with the vaginal discharge experienced, but most adolescents let the vaginal discharge last for a long time and without taking any treatment measures. What adolescents do not do to take preventive measures is due to their lack of health literacy on the management of vaginal discharge (Lanis et al., 2020).

Health literacy in the prevention of vaginal discharge can provide young women with knowledge and appropriate information about reproductive health so as to increase attention to reproductive health in this case regarding vaginal discharge. The impact of the lack of health literacy in the prevention of vaginal discharge is that it can be very fatal if the patient is slow to treat, not only can it lead to infertility and pregnancy outside the womb due to blockage of the fallopian tubes, vaginal discharge can also be an early symptom of uterine cancer which can lead to death (Peyvand & Kargar, 2021). So attention is needed, especially those who do not have healthy behavior to prevent pathological vaginal discharge. Likewise, physiological (normal) vaginal discharge that occurs in adolescents if healthy behavior towards the female area is low can become pathological vaginal discharge. Pathological vaginal discharge causes discomfort and in the long term will cause several serious diseases including pelvic infections and can lead to infertility or infertility (Kasbe & Rajadhyaksha, 2022).

Factors that influence health literacy in the prevention of vaginal discharge in adolescent girls are the role of health promotion, the role of midwives, self-efficacy, social environment and family function. Vaginal discharge is still considered not a serious thing among adolescent girls, so that in maintaining genital organ hygiene in adolescent girls is still lacking. Lack of exposure to health promotion on the prevention of vaginal discharge is one of the main factors. One of the factors supporting adolescent health literacy is health promotion that includes vaginal discharge so that adolescent knowledge and behavior about vaginal discharge prevention literacy is very supportive to avoid the occurrence of pathological vaginal discharge (Abdelnaem, 2019). Adolescents know information about reproductive health, one of which is about vaginal discharge, mostly from their peers. Even just reproductive health problems, every teenager asks a lot of questions in everything with their friends. Although they realize that friends do not have adequate information as well, this causes the information obtained to be incorrect, one of which is about vaginal discharge (Abdelmoneam et al., 2023).

Based on an initial survey in Puspasari Village, Bogor Regency, 10 adolescents, 7 of whom stated that they did not understand the problem of vaginal discharge and there was no reproductive health counseling on vaginal discharge from health workers. All adolescents are shy when talking about reproductive health, especially about how to take good care of reproductive organs, if there is a vaginal discharge problem they are reluctant to go to the health center and adolescents pay less attention to the hygiene of their genital organs for certain reasons. Health literacy on the prevention of vaginal discharge in adolescent girls is still low. As many as 6 out of 10 adolescent girls admitted that they did not know how to prevent vaginal discharge. This lack of knowledge results in adolescents not knowing how to manage their vaginal discharge. Some adolescents just let it go if there is abnormal mucus coming out of the vagina, and do not treat or clean it properly. Thus the incidence of vaginal discharge in adolescents is increasing. The purpose of the study was to produce a model and determine the most influential factors on health literacy in the prevention of vaginal discharge in adolescents.

2. METHODS

This type of research uses quantitative research methods with a cross sectional research design. Exogenous variables and endogenous variables are measured at the same time. This study used a questionnaire instrument. This study was conducted in Puspasari Village, Bogor Regency in January- February 2024. The population in this study were all adolescents in Puspasari Village, Bogor Regency. The research sample amounted to 90 people based on the calculation of the number of indicators multiplied by 5-10. The sampling technique used purposive sampling.

Sampling was determined using inclusion, non-inclusion and exclusion criteria. The inclusion criteria consisted of adolescents in Puspasari Village, Bogor Regency who were willing to become respondents. The non-inclusion criteria in this study consisted of non-adolescents in Puspasari Village, Bogor Regency who were willing to become respondents. Meanwhile, the exclusion criteria in this study were respondents who did not complete the questionnaire.

Data collection was carried out after the researcher obtained permission from the relevant institution which was shown to the research site, namely in Puspasari Village, Bogor Regency. Respondents who became research subjects were given information that all information given to research subjects and the results of filling out the questionnaire were confidential, each respondent was given the full right to agree whether they were willing to become respondents or refuse to become research subjects. Those who have agreed will be given a consent form that has been prepared for the respondent, then the respondent fills out the questionnaire.

In this study, data analysis used the Partial Least Square (PLS) approach using smart PLS software. PLS is a component-based or variance-based Structural Equation Modeling (SEM) equation model. The path analysis model of all latent variables in PLS consists of three sets of relationships: (1) Inner model that specifies the relationship between latent variables (structural model), measured using Q-Square predictive relevance with the formula Q^2 =1-(1-$R1^2$)(1-Rp^2), (2) Outer model that specifies the relationship between latent variables and their indicators or manifest variables (measurement model), measured by looking at convergent validity and discriminant validity. Convergent validity with a loading value of 0.5 to 0.6 is considered sufficient, for the number of indicators of latent variables ranging from 3 to 7 and discriminant validity recommended AVE value greater than 0.5 and also by looking at (3) Weigth relation where the case value of the latent variable is still estimated. Without loss of generalization, it can be assumed that latent variables and indicators or manifest variables are on a scale of zero means and unit variance so that location parameters (constant parameters) can be omitted in the model. If the T-statistic > 1.96, it can be concluded that there is a significant effect, but on the contrary, if the T-statistic < 1.96, it can be concluded that it has no significant effect (Ayatulloh Michael Musyaffi et al., 2022).

3. RESULT

Table 1 Overview of Respondent Characteristics, 2024

Characteristics		Total	Percentage (%)
Age	13 - 14 years old	47	52,2
	15 - 16 years old	43	47,8
Class	VIII	57	63,3
	IX	33	36,7

Source: Primary Data, 2024

Table 1 shows that most of the respondents were aged 13-14 years as many as 47 (52.2%) respondents. Based on class, it shows that most respondents are in class VIII as many as 57 (63.3%) respondents.

The health literacy variable in this study was measured through 15 statement items with a rating of 1-5. So that the questionnaire score ranges from 15-75 and the actual score ranges from 36-75. Health promotion variables in this study were measured through 15 statement items with a rating of 1-5. So that the questionnaire score ranged from 15-75 and the actual score ranged from 35-74. The midwife role variable in this study was measured through 15 statement

items with a score of 1-5. So that the questionnaire score ranged from 15-75 and the actual score ranged from 35-74. Family function variables in this study were measured through 15 statement items with a score of 1-5. So that the questionnaire score ranged from 15-75 and the actual score ranged from 35-74. The social environment variable in this study was measured through 15 statement items with a score of 1-5. So that the questionnaire score ranges from 15-75 and the actual score ranges from 36-75. The self efficacy variable in this study was measured through 15 statement items with a score of 1-5. So that the questionnaire score ranges from 15-75 and the actual score ranges from 36-75. The results of the outer model evaluation can be seen in Figure 1 below:

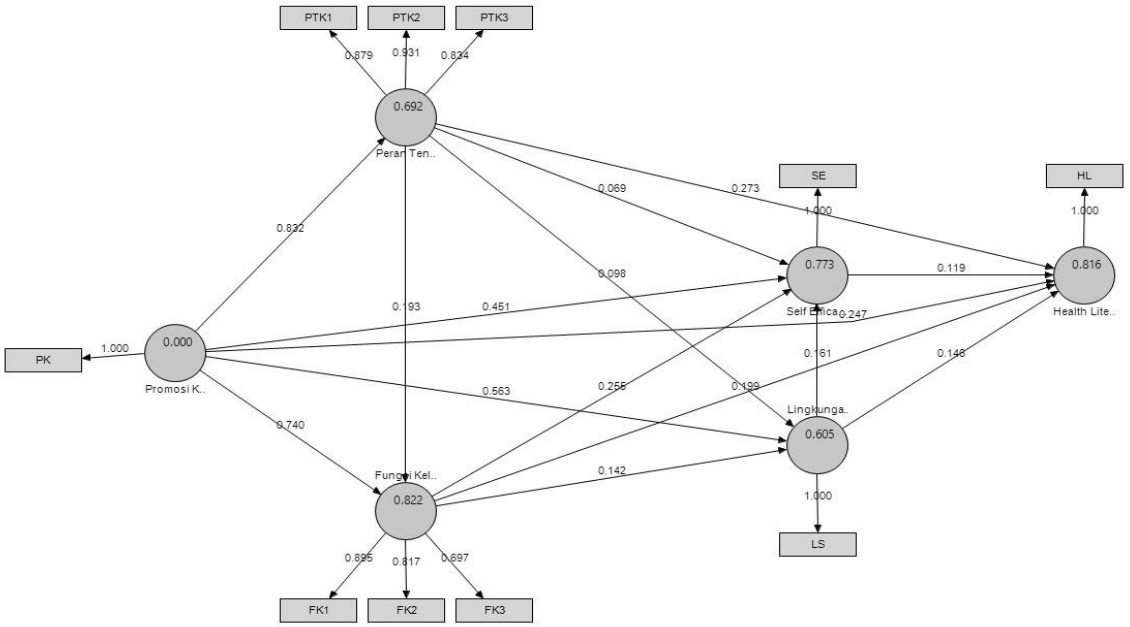

Figure 1. PLS Output (Loading Factors)

Indicators forming latent variable constructs of all variables have shown good results. In addition, all constructs have a loading value greater than 0.50 so that the test criteria for measuring indicators are declared valid. Measurement results by comparing the square root value of Average Variance Extracted (AVE) of each construct with the correlation between constructs with the square root value of AVE in this research model, and the AVE value is above 0.50. So it can be concluded that the measurement evaluation model has good discriminant validity. Other methods show that the square root value of the AVE is greater than the square root value of the average variance extracted (AVE) of each construct, so it can be concluded that the measurement evaluation model has good discriminant validity.

In addition, the R-square value of health promotion contributed to the role of midwives by 69.18% while 30.82% was explained by other variables not studied. Health promotion and the role of midwives contributed to family function by 82.25% while 17.75% was explained by other variables not studied. Health promotion, the role of midwives and family functions contributed to the social environment by 60.46% while 39.54% was explained by other variables not studied. Health promotion, the role of midwives, family functions and the social environment contributed to self-efficacy by 77.31% while 22.69% was explained by other variables not studied. Health promotion, the role of midwives, family function, social environment and self-efficacy contributed to health literacy by 81.65% while 18.35% was explained by other variables not studied.

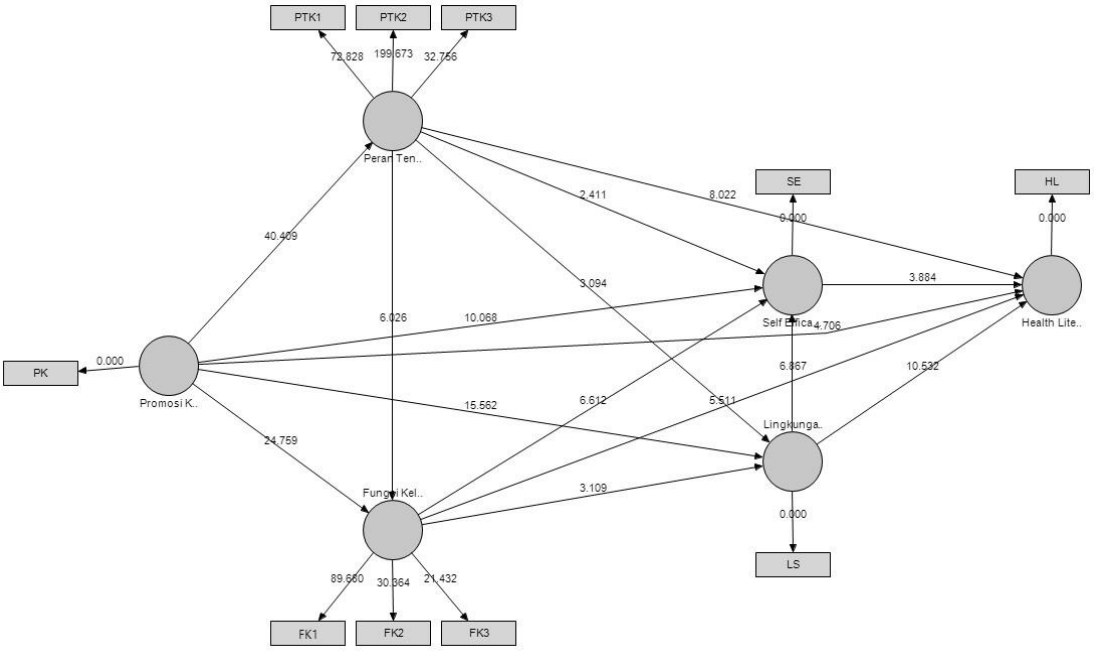

Figure 2 PLS Output (T-Statistic)

Figure 2 shows the results of measuring the statistical t value of each indicator to a variable greater than 1.96 with a confidence level of 95% ($\alpha = 0.05$). This means that all indicators have a significant effect on the variables studied. Health promotion has a positive effect on the role of midwives, the test results show a positive influence of 0.831749, while the T-Statistic value is 40.409287. Health promotion has a positive effect on family function, the test results show a positive effect of 0.739971, while the T-Statistic value is 24.759205. Health promotion has a positive effect on the social environment, the test results show a positive effect of 0.563108, while the T-Statistic value is 15.562395. Health promotion has a positive effect on self-efficacy, the test results show a positive effect of 0.450626, while the T-Statistic value is 10.068283. Health promotion has a positive effect on health literacy, the test results show a positive effect of 0.246629, while the T-Statistic value is 4.706326.

The role of midwives has a positive effect on family function, the test results show a positive effect of 0.193065, while the T-Statistic value is 6.026024. The role of midwives has a positive effect on the social environment, the test results show a positive effect of 0.097791, while the T-Statistic value is 3.094328. The role of midwives has a positive effect on self-efficacy, the test results show a positive effect of 0.069146, while the T-Statistic value is 2.410712. The role of midwives has a positive effect on health literacy, the test results show a positive effect of 0.273299, while the T-Statistic value is 8.022381.

Family function has a positive effect on the social environment, the test results show a positive effect of 0.141775, while the T-Statistic value is 3.109062. Family function has a positive effect on self-efficacy, the test results show a positive effect of 0.255083, while the T-Statistic value is 6.612021. Family function has a positive effect on health literacy, the test results show a positive effect of 0.199198, while the T-Statistic value is 5.511346.

The social environment has a positive effect on self-efficacy, the test results show a positive effect of 0.160917, while the T-Statistic value is 6.867351. The social environment has a positive effect on health literacy, the test results show a positive effect of 0.146142, while the T-Statistic value is 10.532111. Self efficacy has a positive effect on health literacy, the test results show a positive effect of 0.118608, while the T-Statistic value is 3.883889.

Table 2 Percentage of Influence between Variable, 2024

Variable	*LV Correlation*	*Direct Path*	*Indirect Path*	*Total*	*Direct %*	*Indirect %*	*Total %*
Health Promotion	0,868	0,247	0,622	0,868	21,42	1,77	23,18
Midwife's Role	0,829	0,273	0,073	0,346	22,66	0,10	22,76
Family Function	0,848	0,199	0,054	0,253	16,88	0,04	16,92
Social Environment	0,756	0,146	0,019	0,165	11,04	0,008	11,05
Self Efficacy	0,813	0,119		0,119	9,65		9,65
Total					81,65	1,92	83,57

Source: Primary Data, 2024

Table 2 states that health promotion has a direct and indirect effect on health literacy. The results of the parameter coefficient test between health promotion and health literacy obtained a direct effect of 21.42%, while for the indirect effect between health promotion on health literacy through the role of midwives, family functions, social environment and self-efficacy obtained a value of 1.77%. The role of midwives has a direct and indirect effect on health literacy. The results of the parameter coefficient test between the role of midwives on health literacy obtained a direct effect of 22.66%, while for the indirect effect between the role of midwives on health literacy through family functions, social environment and self-efficacy obtained a value of 0.10%.

Family function has a direct and indirect effect on health literacy. The results of the parameter coefficient test between family function and health literacy obtained a direct effect of 16.88%, while for the indirect effect between family function on health literacy through the social environment and self efficacy obtained with a value of 0.04%.

The social environment has a direct and indirect effect on health literacy. The results of the parameter coefficient test between the social environment on health literacy obtained a direct effect of 11.04%, while for the indirect effect between the social environment on health literacy through self efficacy obtained a value of 0.008%. Self efficacy has a direct effect on health literacy. The results of the parameter coefficient test between self efficacy on health literacy obtained a direct effect of 9.65%.

The value of each direct effect of exogenous latent variables when together shows conformity with the R Square value or in other words this states that the variables of health promotion, the role of midwives, family functions, social environment and self efficacy are able to explain the health literacy variable by (21.42% + 22.66% + 16.88% + 11.04% + 9.65%) = 81.65%. While the indirect effect of health promotion variables, the role of midwives, family functions and the social environment on health literacy variables is (1.77% + 0.10% + 0.04% + 0.008%) = 1.92%. So the total direct and indirect effect is 83.57%.

4. DISCUSSION

Health promotion has a positive effect on health literacy, the test results show a positive effect of 0.246629, while the T-Statistic value is 4.706326 and significant at $\alpha = 5\%$, the T-Statistic value is above the critical value (1.96). Health promotion has a direct effect on health literacy. The results of the parameter coefficient test between health promotion and health literacy obtained a direct effect of 21.42%. The results of the parameter coefficient test between health promotion and health literacy obtained an indirect effect between health promotion on health literacy through the role of midwives, family functions, social environment and self efficacy obtained a value of 1.77%.

The results of previous researchers, stated that there was a positive effect between health promotion and health literacy on the prevention of vaginal discharge with a P value of 0.021. The results of this study provide information that vaginal discharge experienced by adolescents in 3 consecutive months and not treated properly will cause cervical cancer. The findings of the Jualianti study obtained from 64 adolescent girls who had experienced vaginal discharge by 62 adolescents, and 2 adolescents never experienced vaginal discharge, with

vaginal discharge that came out white like milk by 50% and colorless or clear by 42%. The number of adolescents who have never experienced vaginal discharge was found to be 82.8%, having health literacy on the prevention of vaginal discharge is good because they get good health promotion about vaginal discharge but 17.2% of adolescents have poor health literacy about vaginal discharge because they have never been exposed to health promotion.11

The role of health promotion on the prevention and impact of vaginal discharge for adolescents is very important. Information provided in the form of counseling on reproductive health such as explaining the changes after the first menstruation. The culmination of a series of changes is the onset of vaginal discharge symptoms of an adolescent girl after experiencing menstruation. Some adolescents will experience vaginal discharge before menstruation. This information needs to be explained to adolescent girls related to the symptoms of both physiological and pathological vaginal discharge (Abdullah et al., 2020).

According to the researcher's assumption, health promotion affects health literacy in the prevention of vaginal discharge, with health promotion adolescents have knowledge about the prevention of vaginal discharge so that adolescents can better improve the prevention of vaginal discharge. The role of midwives has a positive effect on health literacy, the test results show a positive effect of 0.273299, while the T-Statistic value is 8.022381 and significant at $\alpha = 5\%$, the T-Statistic value is above the critical value (1.96). The role of midwives has a direct effect on health literacy. The results of the parameter coefficient test between the role of midwives on health literacy obtained a direct effect of 22.66%. The results of the parameter coefficient test between the role of midwives on health literacy obtained an indirect effect between the role of midwives on health literacy through family functions, social environment and self-efficacy obtained a value of 0.10%.

According to the results of previous research previous research, explained that to overcome reproductive health problems in adolescents, health education about reproductive health problems from midwives is an important part of the implementation of reproductive health. This is because based on existing data, around 70% of women experience external genitalia hygiene problems. This indicates the lack of health literacy of women to have awareness of maintaining their own health. Ika's research states that there is a significant relationship between the role of midwives and vaginal discharge prevention behavior with a P value of 0.01 (Fitriani & Rinata, 2020).

The role of midwives is the second factor influencing the health literacy of adolescent girls on the prevention of vaginal discharge. The phenomenon that occurs in some adolescent girls who do not understand about reproductive health, besides that they have never received information, especially about adolescent reproductive health from health workers. Therefore, every health agency strives to overcome reproductive health problems experienced by adolescent girls by making preventative efforts by means of health counseling and health education involving all midwives (Jishna et al., 2024). Midwives are tasked with assisting, serving and providing education to the community, especially adolescents. The role of midwives is carried out to assist clients in improving health services, symptoms of disease, and even actions to be taken, so that the community is expected to change health literacy in the prevention of vaginal discharge after being given health education by midwives (Ponnaluri, 2021).

According to the researcher's assumption, the role of health workers affects health literacy in the prevention of vaginal discharge, health workers have many roles for adolescents, including as educators, facilitators and counselors and motivators for adolescents to better their knowledge and behavior in preventing vaginal discharge. Family function has a positive effect on health literacy, the test results show a positive effect of 0.199198, while the T-Statistic value is 5.511346 and significant at $\alpha = 5\%$, the T-Statistic value is above the critical value (1.96). Family function has a direct effect on health literacy. The results of the parameter coefficient test between family function and health literacy obtained a direct effect of 16.88%.

The results of the parameter coefficient test between family function and health literacy obtained an indirect effect between family function on health literacy through the social environment and self efficacy obtained with a value of 0.04%. Health literacy of adolescents aged 15-24 years came from various sources including from parents 92.8%, from teachers 72.2%, friends 29.3%, print media 23.7%, electronic media 13.6%, religious leaders 4.8%, health workers 2.9,%. There is a positive contribution between family function and health literacy in the prevention of vaginal discharge with a P value of 0.01 and an odds ratio of 24.6 (95% CI; 2.62 - 35.6) (Michalow et al., 2024).

Another factor that influences the prevention of vaginal discharge in adolescent girls is family function. Family functions can include learning together, exchanging experiences or planning other activities. The unique characteristic of family function in health is that the family has to have the same interest and curiosity so that they can seek information and provide information to each other. Adolescents know information about reproductive health, one of which is about vaginal discharge, from the family. Not only reproductive health problems, every teenager asks a lot of questions in everything with his parents (Rini, 2023).

According to the researcher's assumption, family functions affect health literacy in the prevention of vaginal discharge, the family can function as care in the family, there is mutual attention and information so that health literacy for family members can increase. The social environment has a positive effect on health literacy, the test results show a positive effect of 0.146142, while the T-Statistic value is 10.532111 and significant at $\alpha = 5\%$, the T-Statistic value is above the critical value (1.96). The social environment has a direct effect on health literacy. The results of the parameter coefficient test between the social environment and health literacy obtained a direct effect of 11.04%. The results of the parameter coefficient test between the social environment and health literacy obtained an indirect effect between the social environment on health literacy through self efficacy obtained with a value of 0.008%.

According to research that the social environment is only aimed at the interests of women's reproductive health. The needs of young women, unmarried women, and those suffering from Reproductive Tract Infections such as vaginal discharge and post-reproductive age, are still largely neglected. The results of the study stated that there was a significant relationship between the social environment in the community with health literacy on the prevention of vaginal discharge in adolescent girls with a p-value of 0.042 (Armini, 2022).

The social environment is formed due to normative beliefs and motivations from referents that a person believes in. Assessment of the social environment is intended to determine whether the social environment influences one's health literacy. Lack of hygiene of the external genitalia is part of the influence of the social environment such as often hearing other people's words about the use of feminine cleansing soap, rarely changing pads during menstruation, using perfume in the pubic area and often leaving the intimate organs wet, for example after urinating is not dried are some of the factors that cause vaginal discharge (Murewanhema et al., 2022).

According to the researcher's assumption, the social environment affects health literacy in the prevention of vaginal discharge, the social environment forms normative beliefs and motivations from referents that are trusted by a person, the social environment can change a person's knowledge and behavior to make themselves aware of healthy living behavior. Self efficacy has a positive effect on health literacy, the test results show a positive effect of 0.118608, while the T-Statistic value is 3.883889 and significant at α = 5%, the T-Statistic value is above the critical value (1.96). Self efficacy has a direct effect on health literacy. The results of the parameter coefficient test between self efficacy and health literacy obtained a direct effect of 9.65%.

Although many women experience vaginal discharge, they consider it normal. Wrong self- efficacy will encourage someone to behave incorrectly on health literacy. Improper self-efficacy will weaken a person's motivation to behave healthily in an effort to prevent and treat pathological vaginal discharge, this is in accordance with research conducted by the former found that there is a significant relationship between self-efficacy and adolescent health literacy in efforts to prevent pathological vaginal discharge with a P value of 0.03 and an Odds ratio of 12.6 (Hunter et al., 2022).

The self efficacy factor is also part of health literacy in the prevention of vaginal discharge of adolescent girls. Wrong self-efficacy will also have an impact on the attitude and healthy literacy of an adolescent, it is found that most women feel no problem with complaints of vaginal discharge they experience and they never think about the consequences for their health both short and long term (Darvishpour et al., 2022).

According to the researcher's assumption, self efficacy affects health literacy in the prevention of vaginal discharge, knowledge and behavior of adolescents can be formed starting from the awareness of these adolescents. Adolescents who experience vaginal discharge still keep their complaints tightly, because they are embarrassed to check themselves so that sometimes the vaginal discharge experienced has become severe, even though awareness to check early is very helpful to reduce the risk of vaginal discharge they experience.

5. CONCLUSION

The results of this study can be concluded that there is a direct and indirect effect and the magnitude of health promotion, the role of midwives, family function, social environment and self efficacy on health literacy in preventing vaginal discharge in adolescents in Puspasari Village, Bogor Regency. The variable that has the greatest effect on health literacy is the midwife's role variable. The existence of the greatest influence of the midwife's role on health literacy can be seen from health workers always inviting adolescents to prevent vaginal discharge, mobilizing vaginal discharge prevention counseling activities for adolescents, encouraging adolescents to prevent vaginal discharge, providing something that can motivate adolescents to prevent vaginal discharge and convey the importance of reproductive health to adolescents. It is expected that the role of health workers in providing counseling related to the prevention of vaginal discharge, such as providing counseling on the prevention of vaginal discharge, providing guidance to school teachers on the prevention of vaginal discharge, monitoring the achievement of vaginal discharge prevention in adolescents and inviting adolescents to prevent vaginal discharge.

ACKNOWLEDGMENTS

Thank you to the Annisa Institute of Health and Business for providing much support for this research. In addition, to adolescents in the Puspasari Village area of Bogor Regency who have been willing to be respondents in this study.

REFERENCES

Abdelmoneam, A., Ibrahim, W., Abd Elmgeed, S., & Ali, W. (2023). Knowledge and self-care practices of women regarding abnormal vaginal discharge. *Alexandria Scientific Nursing Journal, 25*(1), 1–10. https://doi.org/10.21608/asalexu.2023.300003

Abdelnaem, S. A. (2019). Effect of self-care guidelines on knowledge and quality of life among faculty of nursing students with vaginal infection. *Obstetrics & Gynecology International Journal, 10*(1). https://doi.org/10.15406/ogij.2019.10.00408

Abdullah, A., Jafar, N., & Syafar, M. (2020). Development of health education model (vaginal hygiene) in vaginal candidiasis prevention in pregnant women. *Enfermería Clínica, 30,* 159–162. https://doi.org/10.1016/j.enfcli.2019.10.060

Agana, M. G., Ryali, B., & Patel, D. R. (2019). Vulvovaginitis in adolescents. *Pediatric Medicine, 2,* 53. https://doi.org/10.21037/pm.2019.09.04

Alenizy, H. K., AlQahtani, M. H., Aleban, S. A., Almuwallad, R. I., Binsuwaidan, L. A., Alabdullah, D. W., & Althomali, A. E. (2024). Knowledge and practice regarding abnormal vaginal discharge among adolescent females in Riyadh City: An observational study. *Cureus*. https://doi.org/10.7759/cureus.56719

Armini, S. K., & N. K. A. (2022). Leucorrhoea in young women and determinants of preventive behavior: A literature review. *Pediomaternal Nursing Journal*, *8*(2), 102–110. https://doi.org/10.20473/pmnj.v8i2.37998

Darvishpour, A., Mansour-ghanaei, R., & Mansouri, F. (2022). The relationship between health literacy, self-efficacy, and self-care behaviors in older adults with hypertension in the north of Iran. *HLRP: Health Literacy Research and Practice*, *6*(4). https://doi.org/10.3928/24748307-20221013-01

Fitriani, D. A., & Rinata, E. (2020). Midwifery care for pregnant women with discomfort of leucorrhoea in maternity hospital. *Indonesian Journal of Innovation Studies, 10*. https://doi.org/10.21070/ijins.v10i.499

Ghaddar, N., Anastasiadis, E., Halimeh, R., Ghaddar, A., Dhar, R., AlFouzan, W., Yusef, H., & El Chaar, M. (2020). Prevalence and antifungal susceptibility of *Candida albicans* causing vaginal discharge among pregnant women in Lebanon. *BMC Infectious Diseases, 20*(1), 32. https://doi.org/10.1186/s12879-019-4736-2

Gweda, A., & El-Haleem El-Agamy. (2021). Effect of instructional guidelines on students' self-care practices regarding vaginal discharge at secondary schools in Tanta City. *Tanta Scientific Nursing Journal*, *20*(1), 8–46. https://doi.org/10.21608/tsnj.2021.168848

Hulkarimah, U., Rasyid, R., & Syauqi, M. (2024). The relationship between level of knowledge and personal hygiene during menstruation among students of class VII MTSN 6 Padang City. *International Journal of Medicine and Health (IJMH), 3*(3). https://doi.org/10.55606/ijmh.v3i3.3826

Hunter, E. C., Murray, S. M., Sultana, F., Alam, M.-U., Sarker, S., Rahman, M., Akter, N., Mobashara, M., Momata, M., & Winch, P. J. (2022). Development and validation of the Self-Efficacy in Addressing Menstrual Needs Scale (SAMNS-26) in Bangladeshi schools: A measure of girls' menstrual care confidence. *PLOS ONE, 17*(10), e0275736. https://doi.org/10.1371/journal.pone.0275736

Jishna, Khader, A., P, D., & Bindu, V. (2024). Point-of-care testing in a patient with vaginal discharge. *Journal of Skin and Sexually Transmitted Diseases, 6*, 80. https://doi.org/10.25259/JSSTD_5_2023

Kasbe, A. M., & Rajadhyaksha, N. G. (2022). Influence of literacy on abnormal white discharge in women of reproductive age group in a metropolitan city. *International Journal of Community Medicine and Public Health, 9*(11), 4173. https://doi.org/10.18203/2394-6040.ijcmph20222914

Lanis, A., Talib, H. J., & Dodson, N. (2020). Prepubertal and adolescent vulvovaginitis: What to do when a girl reports vaginal discharge. *Pediatric Annals, 49*(4). https://doi.org/10.3928/19382359-20200317-01

Michalow, J., Walters, M. K., Edun, O., Wybrant, M., Davies, B., Kufa, T., Mathega, T., Chabata, S. T., Cowan, F. M., Cori, A., Boily, M.-C., & Imai-Eaton, J. W. (2024). Aetiology of vaginal discharge, urethral discharge, and genital ulcer in sub-Saharan Africa: A systematic review and meta-regression. *PLOS Medicine, 21*(5), e1004385. https://doi.org/10.1371/journal.pmed.1004385

Murewanhema, G., Moyo, E., Mhango, M., Chitungo, I., Moyo, P., Musuka, G., Dzobo, M., & Dzinamarira, T. (2022). Abnormal vaginal discharge among women of reproductive

age in sub-Saharan Africa: The need for a paradigm shift from a syndromic approach to specific pathogen identification and directed treatment. *IJID Regions, 5*, 165–168. https://doi.org/10.1016/j.ijregi.2022.10.006

Musyaffi, A. M., Khairunnisa, H., & Respati, D. K. (2022). *Konsep dasar structural equation model-partial least square (SEM-PLS) menggunakan SmartPLS*. Pascal Books.

Peyvand, M., & Kargar, S. (2021). The role of health literacy promotion in decreasing vaginal infection: A message to health policy makers. *Evidence Based Health Policy, Management and Economics*. https://doi.org/10.18502/jebhpme.v5i3.7286

Ponnaluri, A. (2021). A study on microbiological profile in women with symptomatic vaginal discharge. *International Journal of Clinical Obstetrics and Gynaecology*, *5*(3), 325–329. https://doi.org/10.33545/gynae.2021.v5.i3e.1186

Rao, V. L., & Mahmood, T. (2020). Vaginal discharge. *Obstetrics, Gynaecology & Reproductive Medicine*, *30*(1), 11–18. https://doi.org/10.1016/j.ogrm.2019.10.004

Rini, A. S. (2023). The influence of sources of information and the role of parents on vaginal discharge prevention behavior in adolescent girls. *International Journal of Public Health Excellence (IJPHE)*, *3*(1), 312–319. https://doi.org/10.55299/ijphe.v3i1.662

Sim, M., Logan, S., & Goh, L. (2020). Vaginal discharge: Evaluation and management in primary care. *Singapore Medical Journal*, 297–301. https://doi.org/10.11622/smedj.2020088

Widiarti, L., Rachmawati, D., & Sunarno, I. (2023). Knowledge adolescent girls about vaginal discharge. *Jurnal Smart Keperawatan, 10*(1), 1. https://doi.org/10.34310/jskp.v10i1.714