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FACTORS ASSOCIATED WITH THE INCIDENT OF LEUKORRHEA IN ADOLESCENT GIRLS

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ABSTRACT

Leukorrhea in adolescents is a problem that often occurs and interferes with reproductive health system. According to Sirait, 2021 states that vaginal discharge is a physiological thing for a woman, almost 75% of women experience vaginal discharge in conditions of ovulation, before menstruation or after menstruation. But most women do not know about vaginal discharge and its causes so that if not treated properly it will cause infertility and is an early symptom of uterine cancer and various problems such as sexually transmitted infections. The purpose of this study was to determine the factors associated with the incidence of leukorrhea in adolescent girls in the Ngasinan village, Sukoharjo. The research uses an Analytical Survey with a research design that is a Cross Sectional approach. The population is all young women in the Ngasinan Sukoharjo Village area with a sample technique using Simple Random Sampling, totaling 120 respondents. Data analysis used Univariate analysis and Chi-Square test. Based on the bivariate analysis using the Chi-Square test, the age variable was obtained ρ Value = 0,004< 0,05, knowledge ρ Value = 0,001< 0,05, attitude ρ Value = 0,003 < 0,05, using pantyliner ρ Value = 0,001 < 0,05, and using of vaginal cleaning fluid ρ Value = 0,004 < 0,05. This study has a significant relationship between age, knowledge, adolescents, attitudes, use of pantyliners and use of vaginal cleaning fluids with the incidence of leukorrhea in adolescent girls.

Keywords: adolescent; factors; leukorrhea

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INTRODUCTION

The definition of adolescence is a period of transition or transition between the childhood stage to the adult stage of the age range of 10-19 years. the occurrence of a period of rapid growth (growth spurt), physical changes consisting of secondary and primary sex characteristics, experiencing fertility and emotional, physiological and psychological changes. One of the reproductive health problems is vaginal discharge (Dipali & Rupali, 2009). According to Sirait, 2021 states that vaginal discharge is a physiological thing for a woman, almost 75% of women experience vaginal discharge in conditions of ovulation, before menstruation or after menstruation. Cases that occur in the global world are cases of sexually transmitted infections consisting of HIV, Human Papillomavirus, Syphilis, Chlamydia trachomatis, Neisseria Gonorrhoea, Candidiasis and Trichomonas Vaginalis occurring in the reproductive age of both men and women, the average age is 15-49 years. and according to a survey from the world each year 376.4 million new cases of sexually transmitted infections (STIs) that can be cured and treated by medical means (Rowley et al., 2019). The incidence of vaginal discharge is a problem that is often experienced by women who have had menstruation and the cause of vaginal discharge can have an impact on being a vagina with a

distinctive pathological odor and a rancid smell, the emergence of vaginitis which eventually becomes problematic in women with severe problems in the long term including primary infertility, cancer. reproductive organs, emotional and mental disorders that have an impact on the future in the future (Iswatun, Kusnano, & Nasir, 2021). The highest prevalence of STIs globally is among those aged 18-29 years. Other studies have found an increased prevalence of STIs among young women in different regions and populations characterized by early vaginal discharge (Torrone et al., 2018).

The world experiences reproductive health problems that occur every year, the cause of problems in women in particular is around 2.3 million annually in the world and 1.2 million in developing countries with cases of infection in the reproductive organs that continue and are still in the treatment process. about 5 million new cases per year and 3 million in developing countries. Cases of vaginal discharge in the world are around 75% and in women on the European continent are 25%. Based on data from the Population and Family Planning Agency (BKKBN), STI and ISR problems in Indonesia are not easily accessible, but in cases in the field there are cases of STI sufferers aged around 15-29 years and entering the reproductive age phase. Indonesian women who experience vaginal discharge about 75% (Susila & Kastar, 2020).

The main cause of pathological vaginal discharge is infection (fungi, germs, parasites, and viruses). Vaginal discharge consists of 2 categories, namely physiological vaginal discharge and pathological vaginal discharge. Problems Pathological vaginal discharge with a characteristic foul, unpleasant odor, a yellowish or greenish discharge appears, and itching in the vaginal area. The causes of vaginal discharge include personal hygiene factors by washing the vagina in water that does not flow in the container for a long time and is waterlogged, the knowledge of young women in caring for the genitals, the use of underwear that cannot absorb water and sweat with polyester material, the condition of the underwear. which is damp and does not change clean and dry underwear, and when menstruating, adolescents girls does not change sanitary napkins every 4 hours (Majigo. Kashindye & Mtulo, 2021).

Vaginitis occurs in women of reproductive age which often occurs in adolescence, causing discomfort in the lives of girls and women about 75%. The signs experienced in cases of reproductive organs with a diagnosis of Vaginitis can occur with the appearance of a whitish discharge, a pungent and bad vaginal odor, irritation and itching around the vagina and can occur once in their lifetime.The three most common microbial etiologies of vaginitis (bacterial vaginosis, vulvovaginal candidiasis, and trichomonas) are discussed, and their diagnosis and treatment in adolescents (Lanis, Talib & Dodson, 2020). Researchers are interested in the title of reproductive disorders in adolescents about vaginal discharge/Leukhorea so this article aims to determine the factors associated with the incidence of Leukhorea in adolescent girls in rural Sukoharjo.

METHOD

This research was conducted in Ngasinan Village, Sukoharjo Regency. Time of this research in January – November 2021. This type of research is analytical research which analyzes, explains and emphasizes the correlation (relationship) between one variable and another with a Cross Sectional approach. The population of this study were all young women in Ngasinan Village, Sukoharjo Regency. The sample of the study was female respondents using a simple random sampling technique as many as 120 respondents with inclusion criteria. The sample of this study were female adolescents aged 12-19 years, had menstruated, participated and were willing to be respondents. The independent variables studied were adolescent age, knowledge,

attitudes, use of pantyliners and use of vaginal cleansers, while the dependent variable was the incidence of vaginal discharge in adolescent girls. The source of the data comes from the instrument given to young women using a closed questionnaire. Data analysis using SPSS program, univariate analysis used to describe the distribution and frequency of variables, bivariate analysis to see the relationship between the dependent variable and the independent variable with the Chi-Square test.

RESULTS

Table 1.
Frequency Distribution Based on Respondent Age

Respondent's Age	f	%
Early Teen	52	43.33
Late Teen	68	56.67

Table 1 shows that of the 120 respondents based on age with the category of early teens as many as 52 respondents (43.33%), while the category of late teens as many as 68 respondents (56.67%).

Table 2.
Frequency Distribution Based on Respondent's Knowledge

Respondent Knowledge	f	%
Good	28	23.33
Moderate	62	51.67
Less	30	25.00

Table 2 shows that of the 120 respondents who have good knowledge about Leukorrhea, 28 respondents (23.33%) have moderate knowledge, 62 respondents (51.67%) have less knowledge as many as 30 respondents (25%).

Table 3.
Frequency Distribution Based on Respondent's Attitudes

Respondent's attitude	f	%
Positive	45	37.50
Negative	75	62.50

Table 4 shows that of the 120 respondents who have a positive attitude are 45 respondents (37.50%) while those who have a negative attitude are 75 respondents (62.50%)

Table 4.
Frequency Distribution Based on Respondent's Use of Pantyliner

Using Pantyliner	f	%
Use	35	29.17
Not Use	85	70.83

Table 4 shows that of the 120 respondents who use pantyliners, 35 respondents (29.17%) while those who do not use pantyliners are 85 respondents (70.83%).

Table 5.
Frequency Distribution Based on Use of Vaginal Cleaning Fluid

Use of Vaginal Cleansing Fluids	f	%
Use	51	42.50
Not Use	69	57.50

Table 5, it shows that of the 120 respondents who used vaginal cleaning fluid, 51 respondents (42.50%) were used, while 69 respondents (57.50%) did not use vaginal cleaning fluid.

Table 6. Frequency Distribution Based on Incident of Leukorrhea

Incident of Leukorrhea	f	%
Normal	44	36.67
Abnormal	76	63.33

Table 6, it shows that of the 120 respondents who incident of Leukorrhea normal 44 respondents (36.67%) while incident of Leukorrhea abnormal 76 respondents (63.33%).

Table 7.
Cross-tabulation of the distribution of the frequency of age, knowledge, attitude, use of pantyliners and use of vaginal cleansing fluids with the incidence of leukorrhea in adolescent girls.

Factors	Leucorrhea insidence				Amount		p Value
	Normal		Abnormal				
	f	%	f	%	Amour	%	
Age							
Early Teen	30	25.00	22	18.33	52	100	0.004
Late Teen	40	33.33	28	23.33	68	100	
Knowledge							
Good	10	8.33	18	15.00	28	100	0.001
Moderate	40	33.33	22	18.33	62	100	
Less	25	20.83	5	4.17	30	100	
Attitude							
Positive	23	19.17	22	18.33	45	100	0.003
Negative	52	43.33	23	19.17	75	100	
Use of Pantyliner							
Using	30	25.00	5	4.17	35	100	0.001
Not using	52	43.33	33	27.50	85	100	
Use of Vaginal Cleansing Fluids							0.004
Using	37	30.83	14	11.67	51	100	
Not using	49	40.83	20	16.67	69	100	

Table 7, the results showed that based on the age factor, the incidence of Leukhorrea had a significant relationship. Age with normal incidence, the category of early adolescence as many as 30 respondents (25%), late adolescent category as many as 40 respondents (33.33%) compared to the age factor with the incidence of abnormal Leukhorrea, early adolescence category as many as 22 respondents (18.33%), early teens 28 respondents (23.33%). Chi-

Square test obtained p value = 0.004. There is a significant relationship between knowledge and the incidence of Leukhorrea which has a significant relationship. Knowledge with the incidence of normal Leukhorrea, both 10 respondents (8.33%), sufficient for 40 respondents (33.33%) and less than 25 respondents (20.83%) compared to knowledge with the incidence of abnormal Leukhorrea, both 18 respondents (15%) , only 22 respondents (18.33%) and less than 5 respondents (4.17%). Chi-square test obtained p value = 0.001. There is a significant relationship between attitudes and the incidence of Leukhorrea. Attitudes with the incidence of normal Leukhorrea, positive attitudes of 23 respondents (19.17%) and negative attitudes of 52 respondents (43.33%) and attitudes with the occurrence of abnormal Leukhorrea, positive attitudes of 22 respondents (18.33%) and negative attitudes of 23 respondents (19.17%). Chi-square test obtained p value = 0.003. There is a significant relationship between the use of pantyliners with the incidence of Leukhorrea. The use of pantyliner with normal Leukhorrea 30 respondents (25%) and abnormal Leukhorrea 5 respondents (4.17%), chi-square test obtained p value = 0.001. There is a significant relationship between the use of vaginal cleansers with the incidence of Leukhorrea. For those who used vaginal cleansers and experienced normal Leukhorrea, 37 respondents (30.83%) had abnormal Leukhorrea and 14 respondents (11.67%). Chi-square test obtained p value = 0.004

DISCUSSION

This study discusses the factors associated with the incidence of Leukorrhea in adolescent girls including factors of age, knowledge, attitude, use of pantyliners and use of vaginal cleaning fluids. According to research from Khumbar et al, 2011 states that during puberty, hormonal changes occur in the body so that it moves the transformation of children into adolescents with female sex who has reached sexual maturity accompanied by three changes including physical, psychological and cognitive changes.

In this study supported by Hirani's research, 2020 stated that the results of the study discussed various adolescent gynecological problems and comorbidities. Around 400 cases occurred in early adolescents aged 10-14 years around 30 and late adolescents aged 15-19 years around 370 experiencing gynecological problems in adolescents are puberty, menstrual disorders, acne, abnormal vaginal discharge, breast disease, obesity, height problems, sexual violence, urogenital malformations. Candidiasis is the most common cause of pathological vaginal discharge among married and trichomonas vaginitis in unmarried adolescents.

According to another research stated the results of the study there were 312 adolescent girls cases who experienced gynecological complaints at the Maternity Hospital in Tirupati with special outpatient services in Obstetrics and Gynecology. Common problems faced at the hospital consist of about 73% of adolescents experiencing menstrual disorders, 11% of adolescent patients with complaints of abnormal vaginal discharge, about 42% of dysmenorrhea cases in adolescents, 14% of patients with heavy menstruation and 24% of patients with anemia. Adolescent gynecological problems are special for groups such as primary amenorrhea, menorrhagia, puberty, irregular menstrual cycle, PCOD, ovarian masses that require special attention, proper management and follow-up to improve quality of life and reproductive function in the future (Anuradha &Indira, 2019). This research is in line with research the title Knowledge as Factor Increase Frequency of Vaginal Discharge in District Demak which states that the results of research data analyzed by 60 participants include research, the average knowledge of vaginal discharge is 73.05. Previous studies on the disease showed (Nguyen et al., 2019) the highest percentage of patients who knew that syphilis (57.8%), herpes (57.7%) and HIV/AIDS (57.4%). Knowledge is the main factor for disease

prevention behavior. increase knowledge through the internet, social networks, and online health service providers (Kartikasari, Nur & Susanto, 2020).

The findings of this study are also supported which states that the prevalence of vaginal infections among female students reaches 25%. The majority of students studied did not have important knowledge about vaginal infections at pretest and had unsatisfactory practice scores which consequently had a negative impact on their quality of life. Meanwhile, after the education program was carried out, it was seen that there was a very significant increase in knowledge, practice, and quality of life among female students. Abdelnaem, Mohasib, & Mohamed, 2019). According to Shah, Shrestha, Maharjan, 2019 in a study conducted in Nepal stated that about 60% of adolescent girls wash the external genital area quite often. Washing the genital area more than once a day or using commercial products, especially vaginal cleansers, can increase the risk of infection by disturbing the genital flora in the vagina and causing infection. changing the pH of the vagina so that the risk of vaginal discharge continues and is not recommended in cases of Vulvovaginal disease in the International Community (McClelland et al., 2006).

The findings of this study are also supported by Crann where the results of his research state that respondents use a variety of commercially produced and homemade health and hygiene products. About 95% of the samples used at least one product in the vaginal/genital area. Respondents used vaginal hygiene and hygiene products that were applied to the internal and external genital areas. Products are more likely to be used externally than internally, except for used products such as suppositories and douches for internal use. Respondents reported that more than 90% of respondents used the product once in their lifetime and more than one external product and 64% of respondents used the product internally only once in their lifetime.(Crann et al., 2018).

The results of this study are also supported by research from Koumans, 2007 that the use of commercial and homemade vaginal cleansers was the most commonly used, many categories including the use of creams, gels, baby and feminine wipes, vaginal spraying with chemicals (Douche), tablet suppositories. vagina and shave the pubic hair with non-sterile tools. The practice of douching by a woman has been carried out in a national survey in the United States with a variety of different commercial products for vaginal/genital health and hygiene now available in pharmacies as well as in supermarkets and convenience stores thus contributing most rapidly to the incidence of vaginal discharge in women. The use of vaginal gel cleansers has a higher incidence of bacterial infections of the vagina and vaginal yeast, cases of urinary tract infections are higher when women use wipes applied to the vulva and the area around the vagina and baby wipes and cases of yeast infections are high in the use of moisturizers/ vaginal lubricant (Brotman et al., 2008)

A study conducted by researchers Aurellia and Nainggolan showed that there was a relationship between the use of panty liners and the risk of abnormal vaginal discharge. Using pantyliners increased the risk of abnormal vaginal discharge five times compared to those who did not use panty liners. Types of pantyliners that contain or do not contain antiseptics; does not have a significant relationship with vaginal discharge. Using a panty liner had a significant effect on the risk of vaginal discharge with a bivariate analysis value (p value 0.001; OR 5.428). Using panty liners too often can trigger vaginal discharge because it can make the female area moist (Aurellia & Nainggolan, 2021). The findings of this study are also supported by research conducted by Runeman et al, 2003 showing that the use of pantyliners increases body temperature by 1.50C in the vulvar area and can also increase pH by 0.64. The

chlorine content in pantyliners can kill the normal flora in the vagina (Lactobacillus). Reduced levels of Lactobacillus in the vagina can make the vaginal acidity unstable and become alkaline. The alkaline vaginal pH will make it easier for bad bacteria to grow and multiply (Runeman et al., 2003). The cause of candidiasis is a predisposing factor, namely the occurrence of humidity in the female area. A woman with recurrent candidiasis and demonstrated that the use of panty liners was associated with new cases of candidiasis (Pontes, Amaral,& Giraldo, 2014)

CONCLUSION

Based on the results of research and discussion of factors related to the incidence of Leukorrhea in adolescent girls, it can be concluded that there is a significant relationship between age, knowledge, adolescents, attitudes, use of pantyliners and use of vaginal cleaning fluids with the incidence of leukorrhea in adolescent girls.

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