Risk Factors of Vaginal Discharge in Adolescent Girls: The Influence of Knowledge, Attitudes, and Personal Hygiene

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ABSTRACT
Vaginal discharge is one of the most common reproductive health problems experienced by adolescent girls, which may arise due to poor hygiene practices and limited understanding of reproductive health. Identifying the contributing factors is important to support effective prevention strategies. This study aimed to determine the risk factors associated with vaginal discharge, focusing on knowledge, attitudes, and personal hygiene among female adolescents. This research used a quantitative approach with a cross-sectional design conducted at Harapan Mekar Senior High School, Medan. The population consisted of all female students in grade XII, and total sampling was applied, resulting in 33 respondents. Data were collected using validated questionnaires and analyzed using univariate and bivariate methods with the chi-square test at a significance level of 95% ($\alpha = 0.05$). The results showed that knowledge ($p = 0.005$), attitudes ($p = 0.016$), and personal hygiene ($p = 0.005$) were significantly associated with the incidence of vaginal discharge. Among these factors, poor hygiene practices and limited knowledge were identified as key contributors. In conclusion, improving reproductive health education and promoting proper personal hygiene practices are essential interventions to reduce the risk of vaginal discharge among adolescent girls. Early education is strongly recommended to build awareness and healthy behavior from a young age.

Keywords: Vaginal discharge, risk factors, adolescents, knowledge, attitudes, personal hygiene

1. INTRODUCTION

Teenager daughter generally start experience *menarche* at the age of 13 to 15 years , however Lots from they Not yet own Enough information or knowledge about *personal hygiene* . Important For give education and information about health reproduction since early , because at the age these are reproductive organs start mature and functional . Teenagers is group with amount large , vulnerable , and at risk experience disturbance health reproduction . During menstruation , teenagers daughter often do error in guard cleanliness personal in the genital area. Lack of the knowledge and information they have have , so that attitudes and practices *personal hygiene* often not right . As a result , they can experience itching of the vulva, vaginal discharge , up to smell No pleasant in the feminine area . Vaginal discharge (*Flour albus*) is one of the sign infection of the reproductive organs women , are the exit fluid excessive from the vagina (Nugroho, 2014).

According to *World Health Organization* (WHO) in 2018, almost all woman , good teenager and adult , ever experience vaginal discharge . In women teenager 15-22 years old , vaginal discharge occurs in 60% of them , while in women aged 23-45 years , the figures are reached 40% (Pratiwi, 2019). Based on research data health reproduction women , it is known that 75% of women worldwide are at least Once experience vaginal discharge very in life they . The results of the study in 2015 showed that 50% of women in Indonesia experience vaginal discharge . In 2017 , the number This increase become around 60%, and continues experience increase . In women

who haven't Marry prevalence vaginal discharge highest found as much as 21%. Reproductive Health Survey Indonesian Youth (SKRRI) in 2017 showed that the most vulnerable groups experience vaginal discharge that is Woman aged 15-24 years (SDKI, 2017).

Understanding about health reproduction , especially about vaginal discharge , very important for women so that they know method face it and understand the impact . Women who are less own knowledge and information about genital organ hygiene tends to be own poor behavior Good in guard cleanliness of reproductive organs . This important Because good knowledge as well as behavior proper care is factor crucial in look after genital organ hygiene . This show that reproductive organ care through action hygienic , such as washing intimate organs with clean water , maintain humidity of the area , and avoid use bandage scented , which is part from behavior *personal hygiene* , greatly influences occurrence vaginal discharge in women age fertile . (Rahayu, 2015).

Misperceptions can also occur influence attitudes and behavior Healthy a teenagers . Most of them Woman feel that the vaginal discharge they have experience is not problem serious and they No Once consider the impact to health , good in term short and term long . (Badariati , 2012).

A normal vagina has condition moist with a wet surface covered with mucus or a fluid called secretion produced by glands in the neck uterus (cervix), vaginal walls , and glands *Bartholin* on the lips genitals , as well as mixed with cells vaginal walls that are loose and normal bacteria that are acid , which plays a role important in guard optimal function of the organ . Secretion considered normal if No colored (clear), no smells , no cause pain , and not cause itching . Smelly , colored , and foul-smelling secretions accompanied by pain and itching can categorized as abnormal vaginal discharge . A number of reason abnormal vaginal discharge includes infection fungi , bacteria , or microorganisms others . Mushrooms that are often cause problem This is *Candida albicans* , so that vaginal discharge caused by fungus This known as candidiasis (Dhuangga , 2016)..

Although vaginal discharge classified as relative disease simple , in fact , condition This No easy For treated . Therefore that , care cleanliness of the genital reproductive organs is one of the aspect important from hygiene personal factors that influence health status in a way overall . This is important For prevent infection , so that behavior base like method washing the reproductive organs and replacing bandage is very necessary on a regular basis . Pads that come into contact with vaginal skin can cause humidity , and if bandage the used too long, can cause infection fungi and bacteria (Elliana, 2020).

Data from the UKS (School Health Unit) of Harapan Mekar Private High School , Medan, several female students report Once experience vaginal discharge with symptom itching and smell , which causes they feel No comfortable and worried .

Based on studies preliminary study conducted by researchers at SMAS Harapan Mekar Medan on female students class XII, students who given question about knowledge *personal hygiene* For prevent vaginal discharge , found that female students No know about *personal hygiene* . In addition , some female students report Once experience vaginal discharge , with symptom in the form of spots yellow on the pants in , as well as felt itchy and smelly . Because matter that , the writer interested For do study about connection knowledge , attitudes and behavior *personal hygiene* to vaginal discharge in female students class XII at Harapan Mekar Private High School Medan.

2. RESEARCH METHODS

Type of research used is quantitative with approach studies cut cross - *sectional study* . Research This was implemented at Harapan Mekar Senior High School, Medan. Population study covers all over female students class XII. Total sample is 33 people, with all over population made into as sample research . Questionnaire used as tool gauge in study this , in the form of a series questions and questionnaires that cover aspect knowledge , attitudes , and behavior *personal hygiene* .

For measure knowledge respondents , 12 questions were compiled with score maximum 12. For questions of a positive , answer Correct given value (1) and wrong given value (0), whereas in the question negative , answer Correct given value (0) and wrong given value (1). For measure attitude respondents , 12 questions were compiled with score maximum 60. Statement assessed as strongly agree (5), agree (4), undecided (3), no agree (2), and strongly disagree agree (1). While For question about behavior , there are 15 questions with score maximum 15, where the answer Correct given value (1) and wrong given value (0).

Research data analyzed use analysis univariate and bivariate analysis univariate done For describe the data to be served in table distribution frequency based on variables dependent and independent variables studied . With Thus , variations of each variable , such as knowledge , attitude , behavior about *personal hygiene* , and vaginal discharge , can known . Analysis bivariate done using statistical tests *chi-square* For get p -value . In research this , level the meaning used is 0.05. The relationship between two variables considered significant If p value ≤ 0.05, which means H0 is rejected and Ha is accepted , and vice versa .

3. RESULTS AND DISCUSSION

1. Analysis Univariate

1.1. Knowledge *Personal Hygiene.*

Table 1. Distribution Frequency and Percentage Respondents Based on Knowledge Level *Personal Hygiene.*

Knowledge	n	%
Not enough	11	33.3
Enough	19	57.6
Good	3	9.1
Total	33	100

1.2. Attitude *Personal Hygiene.*

Table 2. Distribution Frequency and Percentage Respondents Based on Attitude *Personal Hygiene.*

Attitude	n	%
Not good	23	69.7
Good	10	30.3
Total	33	100

1.3. Behavior *Personal Hygiene*

Table 3. Distribution Frequency and Percentage Respondents Based on Behavior *Personal Hygiene* .

Attitude	n	%
Negative	22	66.7
Positive	11	33.3
Total	33	100

1.4. Vaginal Discharge in Female Students

Table 4. Distribution Frequency and Percentage Respondents Based on vaginal discharge Class XII Student

vaginal discharge	n	%
Abnormal	21	63.6
Normal	12	36.4
Total	33	100

2. Analysis Bivariate

2.1. Connection Knowledge , Attitude and Behavior *Personal Hygiene* To Vaginal discharge in female students

Table 5. Tabulation cross Knowledge , Attitude , and Behavior , *Personal Hygiene* to vaginal discharge *on* Student .

Variables	Category	*P value*
Knowledge	Not enough Enough Good	0.005
	Not good	

Attitude	Good	0.016
Behavior	Negative	
	Positive	0.005

Analysis results *chi-square* between connection knowledge *personal hygiene* with vaginal discharge in female students , it is known that mark probability (0.005 < sig α = 0.05). The results of the analysis This fulfil criteria condition hypothesis existence relationship , so that can concluded that knowledge *personal hygiene* have significant relationship to vaginal discharge female students

Study This in line with study conducted by (Putri, 2018), which found existence connection significant between knowledge and prevention vaginal discharge at Al- Ulum High School Medan in the year 2017.. vaginal discharge can occurs in adolescents who have lack of knowledge about method guard vaginal hygiene and preventing vaginal discharge . Knowledge that is not adequate often caused by a lack of information obtained , which results in lack of understanding about importance guard vaginal hygiene for prevent vaginal discharge .

According to researchers , lack of knowledge respondents at Harapan Mekar Private High School about vaginal discharge and feminine care cause teenager No capable do prevention vaginal discharge with effective , which has an impact on the occurrence of abnormal vaginal discharge . This is caused by ignorance teenager about method nurse area womanhood with right , so they No do maintenance with good and bad realize that matter the can trigger abnormal vaginal discharge .

Analysis results *chi-square* in the table show that mark probability For connection between attitude *personal hygiene* to vaginal discharge in female students is 0.016, which is more low from level significance α=0.05. Analysis results This fulfil criteria condition hypothesis existence connection so that can concluded that attitude *personal hygiene* have significant relationship to vaginal discharge female students .

According to researcher , someone who has attitude positive to *personal hygiene* , such as always wash hand before touch genitalia , shaving hair genitals at least a month once , and clean tool sex with true , tends to own supportive behavior prevention and treatment abnormal vaginal discharge . Rather , someone with poor attitude Good own opportunity more small For apply good behavior .

Furthermore results analysis *chi-square* in the table show that mark probability For connection behavior *personal hygiene* to vaginal discharge in female students is 0.005, which is more small from level significance α = 0.05. Analysis This fulfil criteria For hypothesis existence relationship , so that can concluded that behavior *personal hygiene* own significant relationship with vaginal discharge in female students .

According to researchers , behavior health involving understanding , attitudes , and actions somebody in guard cleanliness self , increasing self- confidence self , as well as prevent emergence disease For increase degrees health . Bad behavior can increase incident vaginal discharge not normal. Therefore that , is necessary good knowledge , attitudes and behavior For lower incident abnormal vaginal discharge . Lack of knowledge in some respondents influence attitudes and behavior they , who in the end leads to poor attitudes good and behavior negative .

4. CONCLUSION AND SUGGESTIONS

Based on study about connection knowledge , attitudes , and behavior *personal hygiene* to vaginal discharge in female students class XII at school Harapan Mekar Private High School Medan, researcher conclude that Still

There is students who experienced vaginal discharge abnormal , caused by a lack of knowledge regarding personal hygiene or genital hygiene . This problem related with attitudes and behavior they in guard genital organ hygiene .

Recommended to Respondents For :

1. Avoid sex free and do masturbation as well as guard pattern life Healthy like smoking and drinking alcoholic as well as diligent exercising .
2. Clean area womanhood with the right way that is with One direction from front of the vagina to direction behind the anus .
3. Get used to it replace sanitary napkins at least 3 times a day (normal) and 2-3 hours once (not normal).
4. Avoid powder , soap or fragrance in the area femininity .
5. For female students who wear skirt recommended use trousers layer in with use material loose , female student recommended No use tight jeans to avoid moisture that can result in growth mold and give rise to itching in the area femininity .
6. Avoid wash area womanhood with soap antiseptic Because can damage bacteria good for the vagina.

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