

THE RELATIONSHIP BETWEEN *PERSONAL HYGIENE KNOWLEDGE* AND THE
INCIDENCE OF LUCHING IN WOMEN OF REPRODUCTIVE AGE
IN BUMI RATU VILLAGE DUSUN 001-007 SOUTH SUNGKAI REGENCY NORTH
LAMPUNG DISTRICT IN 2023

Masti Meilita^{1*}, Ana Mariza², Susilawati³

¹⁻³DIV Midwifery, Faculty of Health Sciences, Malahayati University

E-mail Correspondence: anamariza@evenayati.ac.id

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ABSTRACT

Leucorrhoea is still a problem for women of childbearing age, where around 75% of women in the world experience vaginal discharge. Data in Indonesia states that the incidence of leucorrhoea has reached 70%, in Lampung Province 2021, most cases of pathological leucorrhoea (67.7%) have been experienced. The impact of leucorrhoea that is not treated can cause infertility and cancer. Factors that cause leucorrhoea include poor personal hygiene knowledge and behavior. Knowledge about personal hygiene is often ignored so that it can cause vaginal discharge. As much as 69.7% of women of childbearing age in Bumi Ratu Village experience leucorrhoea and 80% do not know about personal hygiene. The purpose of this research is to know the correlation between personal hygiene knowledge and the incidence of leucorrhoea in reproductive women. The research method uses a quantitative research type, an analytic survey design with a cross-sectional time approach. The population in this study were all women of childbearing age in Bumi Ratu Village, 001-007, South Sungkai District, North Lampung Regency with a total sample of 164 people, using simple random sampling. Statistical test using the chi-square test. The statistical test results showed that most of the respondents had experienced pathological leucorrhoea (57.3%), and had poor knowledge about personal hygiene (51.2%). Statistical test results obtained p-value = 0.001, and OR = 3.034. From the results of the study it can be concluded that there is a relationship between personal hygiene knowledge and the incidence of leucorrhoea in women of childbearing age. Suggestions for health workers in order to increase the knowledge of women of childbearing age about personal hygiene and leucorrhoea can be done by providing health education about personal hygiene using interesting media.

Keywords: Personal Hygiene, Leucorrhoea, Women of Reproductive

INTRODUCTION

Reproductive health is a state of perfect health physically, mentally, socially, and in all aspects related to the reproductive system, its functions and processes (Walyani & Purwoastuti, 2018). Problems surrounding the reproductive organs

that are most often experienced by women of childbearing age are vaginal discharge. Leucorrhoea (flour albus) is a complaint experienced by women which is a vaginal condition when discharge or mucus resembling pus is caused by a

bacterial infection. Sometimes leucorrhoea can be accompanied by itching, bad smell, and other complaints that cause discomfort for the sufferer. This discharge is often experienced by most women (Prayitno, 2014).

According to the 2018 World Health Organization (WHO), around 75% of women in the world will experience leucorrhoea at least once in their lifetime, and 45% will experience it twice or more. Meanwhile, European women experience 25% vaginal discharge. Research in India shows the prevalence of leucorrhoea in women is quite high, namely 95%. Data in Indonesia states that the incidence of leucorrhoea in Indonesia continues to increase every year until it reaches 70%, and has the potential to increase to 90% due to Indonesia's tropical climate. Countries with tropical climates have the potential to make it easy for fungi to multiply and result in many cases of leucorrhoea in women (Eduwan, 2022). Leucorrhoea data in Lampung Province is based on large-scale epidemiological studies so far no one has evaluated its prevalence. However, based on the results of research by Maysaroh & Mariza (2021) on women in Lampung Province, cases of pathological leucorrhoea have been experienced by most women (67.7 %).

The high incidence of leucorrhoea can have serious impacts or consequences if not handled properly. The impact of leucorrhoea that is not treated can cause infertility and cancer. Then the appearance of leucorrhoea can also be triggered by several venereal diseases caused by certain types of microorganisms and viruses, including genital herpes, candida albicans fungal infections, bacterial infections, condyloma acuminata disease, and other infections. In

addition, leucorrhoea is a sign or symptom of abnormalities in the female reproductive organs such as infection, cervical polyps, malignancies (tumors and cancer) and the presence of foreign bodies. Therefore, leucorrhoea should be really watched out for and should not be underestimated (Prayitno, 2014).

Factors causing leucorrhoea include poor personal hygiene knowledge and behavior, use of vaginal cleansers, environment, lifestyle, venereal infections and uterine organ diseases. Knowledge of personal hygiene is a factor that is often overlooked and often causes leucorrhoea (Herdayani, et al., 2021; Bahari, 2022).

Women of childbearing age often lack basic knowledge on matters relating to the health of their reproductive organs, including personal hygiene. Personal hygiene is an effort to prevent a disease that focuses on health efforts covering individuals or humans and the environment in which the person is located (Yulianto, Hadi, & Nurcahyo, 2020). Knowledge about personal hygiene in the reproductive organs is very important so that women of childbearing age can have good information and knowledge so they know what to do when facing problems around their reproductive organs (Walyani & Purwoastuti, 2018).

Many women of childbearing age, especially those living in rural areas, do not know the importance of personal hygiene, so they are more susceptible to vaginal discharge. Women who live in rural areas still have basic knowledge which is less, where as much as 78.8 % of women do not know the symptoms and prevention of leucorrhoea. In addition, women who live in rural areas experience more symptoms of leucorrhoea due

to poor personal hygiene behavior in the context of preventing leucorrhoea than those living in urban areas, namely 19.8% , while in urban areas it is as much as 14.1% (Maysaroh & Mariza, 2021).

Research conducted by Haryono, Setyorini & Mastuti (2021), regarding the relationship between personal hygiene knowledge and the incidence of leucorrhoeain female students at the Faculty of Medicine, Wahid Hasyim University, found that as many as 9.7% had poor knowledge and 30.1% experienced vaginal discharge. The results of bivariate analysis obtained the relationship between personal hygiene knowledge and leucorrhoea(p-value = 0.045).

Based on a preliminary study conducted from 01 to 05 February 2023 in 5 randomly selected villages in North Lampung Regency, which has the highest prevalence of leucorrhoea among other villages in North Lampung Regency is Bumi Ratu Village Dusun 001-007 South Sungkai District, which is based data, as many as 198 out of 284 people (69.7%) had experienced vaginal discharge. Based on these initial observations, most of the 20 WUS people, namely 16 people (80%) did not know about personal hygiene , including the definition of personal hygiene, efforts to maintain personal hygiene and prevention of leucorrhoea.

Based on these problems, the authors are interested in conducting research on "The relationship between personal hygiene knowledge and the incidence of leucorrhoeain women of childbearing age in Bumi Ratu Village, Dusun 001-007, South Sungkai Regency, North Lampung Regency in 2023.

LITERATURE REVIEW

Leucorrhoea or flour albus is a vaginal condition when discharge or mucus resembling pus is caused by germs. Sometimes, leucorrhoeacan itch, smell bad, and be green (Prayitno, 2014).

Personal hygiene is an action to maintain a person's cleanliness and health for physical and psychological well-being, lack of self-care is a condition in which a person is unable to perform hygiene care for himself (Potter & Perry, Fundamental of Nursing, Buku 3, Edisi 7, 2013).

Women of Reproductive Age (WUS) are women who are still in their reproductive age (since they got their first menstruation and until menstruation stops). Women of Reproductive Age (WUS) who are in the age range of 15-49 years (Manuaba, 2014).

Knowledge is a very important domain for the formation of a person's behavior and actions. Based on experience and research it turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge (Wawan & Dewi, 2013).

Often women of childbearing age experience leucorrhoeadue to a lack of knowledge about reproductive health. The trigger for leucorrhoeaamong women of childbearing age is the use of tight underwear. Tight underwear makes air circulation not smooth, causing the female internal organs to become moist so they are susceptible to infection (Maysaroh & Mariza, 2021).

The significance of this research is that it can serve as input for health workers as a basis for conducting health education to the public regarding leucorrhoeaand personal hygiene. Besides that, The results of this study are expected to be input in improving the health

efforts of women of childbearing age by carrying out outreach and counseling activities for women of childbearing age related to leucorrhoea and personal hygiene. In addition, the village administration can also coordinate with the local health center regarding reproductive health efforts, especially the issue of leucorrhoea and personal hygiene.

The formulation of the questions in this study included identifying the frequency distribution of leucorrhoea in women of childbearing age in Bumi Ratu Village, Dusun 001-007, South Sungkai District, North Lampung Regency in 2023. Then identify the frequency distribution of personal hygiene knowledge in women of childbearing age in Bumi Ratu Village Dusun 001-007 South Sungkai District North Lampung Regency in 2023. In addition, identifying the relationship between personal hygiene knowledge and the incidence of leucorrhoea in women of childbearing age in Bumi Ratu Village, Dusun 001-007, South Sungkai Regency, North Lampung Regency in 2023.

RESEARCH METHODS

The research method uses a quantitative research type, an analytic survey design with a cross-sectional time approach. This research was carried out from January to July 2023

The population in this study were all women of childbearing age in Bumi Ratu Village, Dusun 001-007, South Sungkai District, North Lampung Regency with a total sample of 164 people, using simple random sampling. The statistical test uses the chi-square test.

The measuring instrument in this study used a questionnaire to measure knowledge and whiteness variables which consisted of 20 multiple choice questions with 3 answer options. While the questionnaire on the leucorrhoea variable has 3 statements with a Likert scale.

The ethical due diligence was carried out on July 18, 2023 under number 3831/EC/KEP-UNMAL/VII/2023.

Data analysis used univariate and bivariate analysis. Univariate analysis uses simple statistical calculations, namely presentation or proportion, while bivariate analysis uses statistical tests chi-square.

RESEARCH RESULT

Univariate analysis

Table 1 Distribution of Leucorrhoea Frequency in Women of Reproductive Age in Bumi Ratu Village, Dusun 001-007, South Sungkai District North Lampung Regency in 2023

vaginal discharge	Amount (n)	Percentage (%)
Physiological vaginal discharge	70	42,7
Pathological vaginal discharge	94	57,3
Total	164	100

Based on table 1 above, it can be seen that most of the respondents had experienced pathological vaginal discharge, namely 94 people

(57.3 %). While those who experienced physiological leucorrhoea were 70 people (42.7 %).

Table 2 Frequency Distribution of Personal Hygiene Knowledge among Women of Reproductive Age in Bumi Ratu Village, Dusun 001-007, South Sungkai District, North Lampung Regency, 2023

Personal Hygiene Knowledge	Amount (n)	Percentage (%)
Good	80	48,8
Not good	84	51,2
Total	164	100

Based on table 2 above, it can be seen that the majority of respondents have poor knowledge about personal hygiene, namely as

many as 84 people (51.2 %). Meanwhile, there were 80 people (48.8 %) who had good knowledge about personal hygiene .

Bivariate Analysis

Table 3 Relationship between Knowledge of Personal Hygiene and Incidence of Leucorrhoea in Women of Reproductive Age in Bumi Ratu Village, Dusun 001-007, South Sungkai District, North Lampung Regency in 2023

Personal Hygiene Knowledge	White incident				Total	P-Value	OR (95% CI)
	Physiological vaginal discharge		Pathological vaginal discharge				
	n	%	n	%			
Good	45	56,3	35	43,7	80	100	0.001 3,034 (1,595 - 5,774)
Not good	25	29,8	59	70,2	84	100	
Amount	70	42,7	94	57,3	164	100	

Based on table 3 above, it can be seen that of the 80 respondents who had good knowledge, 45 people (56.3%) experienced physiological (normal) vaginal discharge, while 35 people (43.7%) experienced pathological vaginal discharge. In addition, of the 84 respondents who had poor knowledge, 59 people (70.2%) experienced pathological vaginal discharge, while 25 people (29.8%) experienced physiological (normal) vaginal discharge.

The results of the analysis using chi-square, obtained p-value = 0.001, so that the p-value < α (0.001 < 0.05) then H_a is accepted. So it can be concluded that there is a relationship between knowledge of

personal hygiene and the incidence of leucorrhoea in women of childbearing age in Bumi Ratu Village, Dusun 001-007, South Sungkai Regency, North Lampung Regency in 2023. Then, based on data analysis also obtained Odds Ratio (OR) = 3.034. So it can be concluded that WUS who have poor knowledge are at risk 3,034 times experienced pathological leucorrhoea compared to those with good knowledge.

DISCUSSION

Distribution of Leucorrhoea Frequency in Women of Reproductive Age in Bumi Ratu Village, Dusun 001-007, South Sungkai District, North Lampung Regency, 2023

Based on the results of the study, it was found that the majority of respondents had experienced pathological vaginal discharge, namely as many as 94 people (57.3 %).

The results of this study are in line with research conducted by Novita (2018), regarding the relationship between knowledge of personal hygiene and hygiene behavior with the incidence of vaginal discharge, in univariate analysis it was found that the incidence of leucorrhoea in young women was 68.7 %.

The results of this study are in accordance with the theory put forward by Prayitno, (2014), pathological leucorrhoea or flour albus is a vaginal condition when discharge or mucus resembling pus is caused by germs. Sometimes, leucorrhoea can itch, smell bad, and be green.

According to Maysaroh & Mariza (2021), women of childbearing age often experience vaginal discharge due to a lack of knowledge about reproductive health. Not many women know how to maintain personal hygiene, especially their reproductive organs, to avoid vaginal discharge, so they sometimes take this issue lightly. The trigger for vaginal discharge among women of childbearing age is the use of tight underwear. Tight underwear prevents air circulation, causing women's internal organs to become damp and easily susceptible to infection.

According to the researchers' assumptions, most of the respondents had experienced

pathological leucorrhoea because most WUS had poor knowledge about personal hygiene. So that there is a higher probability of not doing proper cleaning of the external genitalia organs. These bad habits, for example, not cleaning the intimate organs with cleansers that do not disturb the pH stability around the vagina, using powder on the female organs with the aim that the vagina is fragrant and dry, rarely drying the vaginal area before dressing, not using underwear whose material absorbs sweat, and rarely change pads during menstruation.

Frequency Distribution of Personal Hygiene Knowledge among Women of Reproductive Age in Bumi Ratu Village, Dusun 001-007, South Sungkai District, North Lampung Regency, 2023

Based on the research results, it was found that most of the respondents had poor knowledge about personal hygiene, namely as many as 84 people (51.2 %).

The results of this study are in line with research conducted by Pratiwi & Marlina (2020), concerning the relationship between knowledge about personal hygiene in class XI female adolescents and leucorrhoea at SMK Negeri 3 Medan in 2019, univariate analysis found that most less knowledgeable as much as 65.7%.

The results of this study are in accordance with the theory put forward by Wawan & Dewi (2013), knowledge is a very important domain for the formation of a person's behavior and actions. Based on experience and research it turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge.

According to Budiman & Riyanto (2013), one of the factors

that influences knowledge is education. With higher education, a person will tend to get information, both from other people and from the mass media. The more information you receive, the more knowledge you gain about health. Then, information/mass media also influences a person's knowledge. The existence of new information about something provides a new cognitive basis for the formation of knowledge about that thing. Apart from that, age also influences knowledge. Age influences a person's ability to understand and think. The older you get, the more your understanding and thinking patterns will develop so that the knowledge you gain will get better. Furthermore, knowledge is also influenced by experience. Experience as a source of knowledge is a way to obtain the truth of knowledge.

According to the researchers' assumptions, most of the respondents had poor knowledge about personal hygiene which could be due to the lack of access to sources of knowledge, for example from television, the internet or direct information from health workers regarding personal hygiene. Then, the lack of knowledge can also be influenced by the level of education, where the level of education will be directly proportional to the way a person accesses any available information related to personal hygiene. Based on the results of this study, it was found that most of the respondents had a junior high school level of education (50.6 %), this might be a factor causing a lack of knowledge about personal hygiene. In addition, the lack of knowledge can also be influenced by age, where most of the respondents are young, namely 20-35 years old (65.3 %). At that age the mindset and experience tend not to be as good as those of older people

(> 35 years), so that the information obtained becomes knowledge also not as good as those aged > 35 years. This lack of knowledge can affect behavior in carrying out personal hygiene.

Relationship between Knowledge of Personal Hygiene and Incidence of Leucorrhoea in Women of Reproductive Age in Bumi Ratu Village, Dusun 001-007, South Sungkai District, North Lampung Regency in 2023

Based on the results of the study, it was found that there was a relationship between personal hygiene knowledge and the incidence of leucorrhoea in women of childbearing age in Bumi Ratu Village, Dusun 001-007, South Sungkai Regency, North Lampung Regency in 2023 (p-value = 0.001 and OR = 3.034).

The results of this study are in line with research conducted by Haryono, Setyorini & Mastuti (2021), concerning the relationship between personal hygiene knowledge and the incidence of leucorrhoea in female students at the Faculty of Medicine, Wahid Hasyim University, it was found that the results of the bivariate analysis obtained a relationship between personal hygiene knowledge and leucorrhoea (p-value = 0.045).

The results of this study are in accordance with the theory put forward by Notoatmodjo (2015), that knowledge is a very important area in shaping one's actions/ activities (overt behavior). Behavior based on knowledge will last longer than behavior that is formed not based on knowledge. Knowledge is obtained from one's own experience or the experience of others.

According to Maysaroh & Mariza (2021), efforts are needed to increase the knowledge of women of childbearing age to better

understand their own health, especially about personal hygiene. Women of childbearing age, with all their busy lives, work and all their activities, usually often take important things for granted.

According to the researchers' assumptions, there is a relationship between knowledge of personal hygiene and the incidence of leucorrhoea in women of childbearing age because knowledge of personal hygiene is a factor that influences behavior in maintaining personal hygiene of the genital organs so that it also influences vaginal discharge. So that WUS have good knowledge about personal hygiene will be better in applying personal hygiene measures in particular on the genital organs based on this understanding, so the possibility of experiencing pathological leucorrhoea will be smaller, and vice versa.

The results also showed that some respondents with good knowledge experienced pathological leucorrhoea (43,7 %). According to the researchers, this was because the WUS did not have time to carry out personal hygiene on the genital organs due to work, or also due to the influence of jobs that cause excessive sweating, such as farming or traders/self-employed, which can cause pathological leucorrhoea even though they have good knowledge. In addition, the results of the study showed that some respondents with poor knowledge experienced physiological leucorrhoea (29.8%). According to researchers, this is because the physiological leucorrhoea experienced by WUS is influenced by factors other than knowledge, for example the WUS does not work so that they have a lot of time to carry out personal hygiene measures .

CONCLUSIONS AND RECOMMENDATIONS

The results showed that most of the respondents had experienced pathological vaginal discharge, namely 94 people (57.3 %). In addition, it was found that most of the respondents had poor knowledge about personal hygiene , namely as many as 84 people (51.2 %). The statistical test results obtained that there was a relationship between personal hygiene knowledge and the incidence of leucorrhoea in women of childbearing age in Bumi Ratu Village, Dusun 001-007, South Sungkai Regency, North Lampung Regency in 2023 (p-value = 0.001, OR) = 3.034).

It is hoped that health workers will support for increasing WUS knowledge about personal hygiene and leucorrhoea which can be done by increasing health education about personal hygiene, so that WUS awareness to maintain cleanliness, especially in the intimate organs increases as an effort to prevent vaginal discharge. In addition, so that information can be easily accessed, health workers can provide health promotion through the internet or social media about personal hygiene.

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