

THE EFFECT OF HEALTH EDUCATION ON THE PREVENTION OF FLOUR ALBUS IN LHOKNGA PRISON, THE DISTRICT OF ACEH BESAR

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Abstract

Introduction: Flour albus is one of the most common reproductive health problems in women. Approximately 75% of women in the world suffer from flour albus at least once in their lifetime, and 45% of women experience vaginal discharge twice or more.

Method: This study was *quasi-experimental* with a *one-group pretest-posttest* design, data were collected by questionnaires and was conducted on March 22, 2019. A *total sampling* technique was used in this study. Sampling was done using. Data analysis using *Wilcoxon test*.

Result: The results showed that out of 27 respondents, 3.33% had negative attitudes before being given health education and 59.3% had positive attitudes after being given health education, and after statistical testing with the *wilcoxon test*, the *p-value* was 0.020 ($p \leq 0.05$).

Conclusion: There was a significant impact of providing health education on the attitudes among female prisoners to prevent flour albus

Keywords: Health education, flour albus, female prisoner.

Introduction

Reproductive health problems are one of the health problems that can contribute to morbidity and mortality for women. According to WHO, female reproductive health problems account for 33% of all diseases affecting other systems in women worldwide.¹ In addition, approximately 75% of women in the world experience flour albus at least once in their lifetime, and 45% of women experience vaginal discharge twice or more. In Europe, the rate of vaginal discharge is 25%, of which 40-50% will have a recurrence. In Indonesia, almost all women and teenagers have experienced vaginal discharge, the prevalence of vaginal discharge in Indonesia is higher than in other countries.²

According to the data, approximately 90% of women in Indonesia had the potential to experience vaginal discharge caused by fungal infection because Indonesia is a tropical country, so the fungus is easy to grow which

results in vaginal discharge in many cases. Symptoms of vaginal discharge were also experienced by unmarried women or young women aged 15-24 years, which was around 31.8%. This indicated that teenagers were more at risk for flour albus.³ Approximately 15% of teenage girls in Aceh in 2011 were infected with symptoms of flour albus and itching occurred in only 3%-5%. Some even bothered, but the shame of checking on this sensitive part of the body often defeats the desire to heal, aside from people who were not used to examining their own genitals. The shame of going to the doctor also caused many teenagers to try to treat their problem.² A study on flour Albus was conducted by Riska and her colleagues (2011) in women's prisons, which discovered that 40 respondents (50%) women with fertile age in prisons had high knowledge

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of physiological and pathological flour albus, 4 respondents (42.5% had sufficient knowledge of and a small proportion of (7.5%) respondents had low knowledge about physiological and pathological flour albus.⁴ Previous study by Marzatillah R (2018) in women’s prison of Lhoknga in the district of Aceh Besar found that there were 57.9% of women who had high knowledge of pathological flour albus, and 52.2% of women with negative attitude suffered from pathological flour albus.⁵

According to Jasspreetkaur (2014) who conducted a study in Denhil, India confirmed that the main factors that cause flour albus were consuming hot food, stress, low socioeconomic status, consuming traditional medicines, and a slum environment. Similarly, Tammy (2000) discovered that the main causes were poverty, lack of access to medical care, and an unfavorable lifestyle. Many studies have found that female prisoners tend to have more serious health problems than females in general in the United States. The health problems of female prisoners were also worse than male prisoners, as the number of female prisoners were lesser than male prisoners, female prisoners have received less attention on the grounds that there were fewer occupants.⁷

On the other hand, the government regulation on the requirements and procedures for the implementation of the rights of prisoners in prisons stated that every prison is provided with a clinic and its facilities and provided at least one doctor and other health workers.⁸ Accordingly, a previous study has found that 5 out of 47 female in Lhoknga prison, the district of Aceh Besar experienced excessive flour albus accompanied by itching. Based on the results of

interviews with prison health workers, the treatment in the vaginal area was not completely correct or inappropriate, some behaviors were still using soap/cleaning agents in the vaginal area, using tight underwear and using a damp towel and some even borrowed it. This indicated that it had not been fully implemented properly. Therefore, it is necessary to evaluate the impact of health education on the prevention of flour albus in the Lhoknga prison, the district of Aceh Besar.

Method

This study was a *quasi-experimental* with a *one group pretest-posttest* design, conducted in Lhoknga prison, the district of Aceh Besar District in March 2019. All female prisoners (27 respondents) as the study population. The sample used in this study were female prisoners in Lhoknga prison, as the *total sampling* technique was used with a total sample of 27 respondents who met the inclusion criteria which classified as agreed to be a study subject, signed the *informed consent*, and women who were menstruating. Based on the exclusion criteria, female prisoners to be excluded were those who were receiving medical treatment outside the prison and those who were in quarantine. The instrument used by the author was a questionnaire which has been tested for validity and reliability. As the data analysis used the *wilcoxon sign rank test* with the SPSS 24 for windows program.

Results

- a. The attitude for prevention of flour albus for female prisoners before and after being given education

Tabel 1. Frequency distribution of attitudes towards vaginal discharge prevention in female prisoners before being given education

The attitude for prevention of flour albus	Before Being Given Education		After Being Given Education	
	n	%	n	%
Positive	9	33,3	16	59,3
Negative	18	66,7	11	40,7

The results showed that the attitude of female prisoners before being given health education on the prevention flour albus was mostly

negative (66.7%). Meanwhile, after being given education, the attitude of female prisoners was mostly positive 59.3%.

Tabel 2. Frequency distribution of female prisoner's attitude before and after being given education

The attitude for prevention of flour albus	n	Mean	Deviation Std.	Min	Max	Pre- Post Difference
Before	27	73,7	5,0	66	85	
After	27	76,4	5,3	69	87	2,74

The results showed that the average value of female prisoners' attitude before being given education was 73,7 with 2.74 difference between pre and post and a standard deviation

of 5.0, while after being given education, the average of female prisoners attitude was 76.4 with a standard deviation of 5.3.

b. Differences attitude for prevention of flour albus in female prisoners before and after being given education

Tabel 3. The average of female prisoners' attitude before and after being given education.

Attitude	n	Mean rank		RR	p value	CI 95%
		Neg	Pos			
Before	27					
After	27	5,0	5,0	2,0	0,020	1.136 - 3.522

The results of the wilcoxon test showed that there was a significant difference between attitudes before and after being given education with a P- value = 0.020 ($p < 0.05$). This indicated

that education through video media could change the negative attitude of female prisoners to be positive.

Discussion

According to the results of the *wilcoxon sign rank test*, the value of $p = 0.002$ ($p < 0.05$) which means that there is a significant difference in the provision of health education using video media on the attitudes of prison women. After being given health education through video media, there was a change in the attitude of female prisoners from positive to negative ones.

Our finding is concordant with the findings reported by Edyati (2014) which reported the effect of health counseling with video media on personal hygiene knowledge and attitudes, and found that there was a significant difference in knowledge and attitudes with a value of $p = 0.000$ ($p < 0.05$). As a result of this, there was an effect of health education with video media on knowledge and attitudes.²⁹ Likewise, Idrawati (2018) reported that promotion of health

education through audio-visual media was more effective than using leaflet media.³⁰

The use of media is very effective in providing health education and contributes as a right to support hygiene of the health education goals in health education techniques. In line with this, *Computer Technology Research* (CTR), a computer research and publishing institute, has claimed that people were only able to remember 20% of what they saw, 30% of what they heard, however, people could remember 50% of what they saw and heard and 80% of what they saw and did at once.³¹

Video, a combination of image visualization and audio data that is synchronized and produces a dynamic display that attracts attention and directs respondents' concentration on video material and upload emotions and attitudes. For this reason, video

accounts for an assistance for weak and slow respondents to receive and understand better in capturing a message, owing to the fact that video is able to combine visual (image) with audio (sound).³²

According to this study, there were only 33.3% of female prisoners had a positive attitude at the time of the pretest, this was due to the lack of knowledge of female prisoners related to the prevention of flour albus. On top of that, an uncondusive environment which supports the occurrence of flour albus.

In accordance, a study in 2014 indicated that the main factors resulting *leukorrhoea* or *flour albus* were consuming hot food, stress, low socioeconomic status, consuming traditional medicines, and a hot or slum environment. Furthermore, many studies have found that female prisoners tend to have more serious health problems than the general male population. The health problems of female prisoners were also worse than male prisoners, as the number of female prisoners were lesser than male prisoners, therefore, more attention about health is directed to male prisoners, on the other hand, female prisoners have received less attention on the grounds that there were fewer occupants.⁶

Based on the results of the interview, one of the respondents said that the condition of the unclean toilets was very disturbing for the comfort of toilet users. Most of them had low socioeconomic status and not receiving a supply of sanitary napkins every month, as a consequence, some female prisoners infrequently changed their sanitary napkins. Whereas, there were some female prisoners who had positive attitudes on experiencing pathological flour albus due to their disagreement of not using betel soap, bath soap, or other chemicals in washing or cleaning their vaginal area.

Our finding is concordant with the theory put forwarded by Anthanasia which claimed that flour albus caused by the frequency of using the unclean public toilet, especially the toilet seat, washed vagina in the wrong direction (from the anus to the vagina), frequently exchanged underwear/towels with others, lack of maintaining vaginal hygiene, infrequently changed sanitary napkins during menstruation,

and dirty sanitary environment.¹⁶ Another theory that supported this study indicated that the use of vaginal soap could acidify the vagina to different pH level and killed endogenous bacteria in the vagina, hence, the unavailability of providing protection against other disturbing bacteria in the vagina, consequently it had the potential to cause infection due to the emergence of more dangerous germs.¹⁶

This study confirms that a good attitude towards the vaginal area such as maintaining cleanliness and humidity in the vaginal area by using a tissue and changing underwear frequently can prevent vaginal discharge.¹⁷ Video is an interesting media, with videos, it is easier for female prisoners to catch the message conveyed by the researcher, in view of the fact that the video presents a real situation from the information conveyed and create a deep impression. Video also presents a combination of pictures and words that make it easier for respondents to understand and remember. Video is very effectively used by health workers to provide counseling to female prisoners. As a result of this, there was a significant difference between attitudes before and after being given health education through video media.

Conclusion

There was a significant effect of health education on the prevention of flour albus in Lhoknga prison, the district of Aceh Besar

Ethical Approval

Ethical approval issued by the Health Research Ethics Commission of the Poltekkes Kemenkes Aceh in 2019

Conflict Of Interest

The authors declare that there is no conflict of interest

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Authors' Contribution

- a. Concept & Research Question: Miftahul Jannah
- b. Conducting Research: Miftahul Jannah
- c. Statistical Analysis: Miftahul Jannah, fithriani
- d. Report Writing: Miftahul Jannah, Anita

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