



Evaluation: Media Booklet About Education on Prevention of Flour Albus for Teenage Girl

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ABSTRACT

Purpose of the study: To develop booklet media that is effective and appropriate to the needs of young women in high schools, in terms of education on preventing vaginal discharge or Flour Albus, with the aim of increasing their knowledge, awareness and reproductive health behavior.

Methodology: The research method used is RnD with a 4D design. Defining needs was carried out through questionnaires to determine the needs of student. Design was created based on the results of the definition. Development is carried out by prelevant design and content. Distribution of booklets is direct distribution in schools.

Main Findings: The development of a media booklet about Flour Albus prevention education for young women in high schools was validated by experts with results that were suitable for use and had a significant positive impact in increasing students' knowledge about reproductive health problems. The main findings show that the use of the booklet has succeeded in increasing awareness of adolescent girls about the signs and symptoms of Flour Albus, as well as the preventive steps they can take.

Novelty/Originality of this study: The novelty of this research is lies in a holistic approach that pays attention to the special needs of adolescent girls in developing booklet media on the prevention of Flour Albus, integrating accurate information with a visually attractive design to increase engagement and understanding of adolescent girls at the high school level.

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1. INTRODUCTION

Health education is very important, both at the world and ASEAN levels. At the world level, health education helps fight infectious diseases, improve maternal and child health, and encourage healthy lifestyles [1]–[3]. At the ASEAN level, health education helps increase access to quality health services, strengthen health systems, and increase regional cooperation in the health sector [4]–[6]. By increasing public knowledge and awareness about health, health education can help improve the quality of life of people throughout the world and ASEAN [7]–[9].

Health education in Indonesia is very important because it can improve the level of public health. Health education helps people understand various health issues and how to maintain the health of themselves and their families [10]–[12]. This can improve the overall health status of society. Preventing disease with health education can help prevent various diseases, such as infectious diseases, chronic diseases and accidents [13]–

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[15]. This can save medical costs and increase people's productivity. Improving the quality of life with health education can help improve people's quality of life by improving physical, mental and social health [16]–[19]. Health education can help strengthen the health system in Indonesia by improving the quality of health workers and increasing public awareness about the importance of health.

Knowledge about vaginal discharge is very important for high school students because vaginal discharge is a normal thing that occurs in women and is part of the natural process of cleaning the reproductive organs [20]–[22]. Understanding vaginal discharge can help high school students maintain the health of their reproductive organs [23]–[25]. By understanding vaginal discharge, high school students can better maintain the cleanliness of their reproductive organs. This can help prevent infections and diseases of the reproductive organs. Abnormal vaginal discharge can be a sign of a health problem, such as a yeast infection, bacterial vaginosis, or a sexually transmitted disease [26]–[28]. Understanding vaginal discharge can help high school students detect health problems as early as possible and get appropriate treatment. There are many myths and misconceptions about vaginal discharge that can make high school students feel embarrassed or anxious. Understanding vaginal discharge can help high school students dispel these myths and misconceptions and have a more positive view of their bodies.

Flour Albus reproductive health problems that can occur during adolescence are often not treated seriously by women because in general they consider Flour Albus to be normal. In fact, fluoride albus can be an indication of diseases such as uterine cancer [29]–[31]. Vaginal discharge is a condition that is often experienced by women throughout their life cycle starting from adolescence, reproductive period and menopause. Vaginal discharge is divided into 2 types, namely normal and abnormal vaginal discharge [32]–[34]. Normal vaginal discharge occurs in accordance with a woman's reproductive cycle or in accordance with a woman's body cycle with a type of discharge that is clear in color, not excessive, has no odor and does not cause itching or burning [35]–[37]. Meanwhile, abnormal vaginal discharge is characterized by a large amount of discharge, white like spoiled milk, yellow or greenish, itchy, sore, and accompanied by a fishy or rotten odor. from the vagina will differ according to the cause of the abnormal vaginal discharge itself. The causes of abnormal vaginal discharge are bacteria, fungi and parasites.

This research is in line with research conducted by Elsharkawy et al [26], that research includes limitations in the understanding and sources of information available regarding the prevention of Flour Albus in adolescent girls in educational environments. Although this topic is important, previous research has tended to pay less attention to it specifically. Apart from that, there is a lack of development of educational media that suits the needs of young women, especially in the form of booklets that are easy to access and understand. Therefore, this research emphasizes the need for more in-depth research and the development of appropriate media to effectively address the reproductive health information needs of adolescent girls.

The implication of this research is the importance of developing educational media that suits the needs of young women in high school in terms of preventing vaginal discharge. With a booklet that is informative, easy to understand and visually attractive, it is hoped that it can increase young women's knowledge about the signs, risk factors and steps to prevent vaginal discharge. In addition, the use of this media can also stimulate deeper discussion and reflection on this topic, as well as encourage young women to adopt healthy behavior in maintaining their reproductive health. The implications of this research also include the potential to reduce the stigma associated with reproductive health topics in adolescent girls, thereby helping to create a more open and supportive environment in addressing this health issue.

The novelty of this research lies in the holistic approach in developing booklet media about vaginal discharge prevention education for young women in high school. This research not only focuses on conveying medical information about vaginal discharge, but also considers psychosocial aspects relevant to the target audience, such as the language used, attractive visual design, and the involvement of young women in the learning process. In addition, this research integrates the latest and relevant data in the field of adolescent reproductive health to ensure that the information presented in the booklet is accurate and up-to-date. Thus, this research makes a new contribution to efforts to prevent vaginal discharge in adolescent girls by presenting a comprehensive and innovative approach in developing educational media.

2. RESEARCH METHOD

In this research, the research method used is the research and development (R&D) method. R&D is an approach applied to develop and test the effectiveness of the product being developed. Development research aims to produce effective products according to the needs in a particular field, such as education [38], [39]. The stages in the R&D research method start with identifying potential and problems, data collection, product design, design validation, design revision, product testing, product revision, use trials, product revision, and mass production [40], [41]. All of these stages are directed using a development model, where the researcher chose the 4-D development model.

This research focuses on teenage girls who attend Senior High School 1 in Jambi City as the subject with a total of 30 students. The main objective of the research is to understand in depth their need for booklet media that discusses Flour Albus. The sampling method used is purposive sampling, which allows researchers to select subjects based on certain criteria that are relevant to the research objectives. By using this approach, it is hoped that this research can provide valuable insight in developing educational materials that are appropriate and relevant for young women in dealing with their reproductive health problems.

The data collection technique is a questionnaire. A questionnaire is a list of written questions about the product being developed and must be answered by the respondent or validator [42], [43]. An assessment sheet in the form of a questionnaire is used to obtain data regarding the suitability of media booklets which are developed based on expert assessments. A questionnaire sheet was also used to determine student responses to the use of media booklets. The questionnaire instrument uses a Likert scale in its assessment and is answered in checklist form. The questionnaire sheet is corrected first by the supervisor before use. This data collection technique is carried out after students have studied the media booklet

Data is obtained from learning and development using questionnaires in the form of scores, criticism and suggestions for booklet media from questionnaires or questionnaires that have been assessed by expert validators. The assessment of the media booklet questionnaire regarding education on preventing flour albus in adolescent girls was carried out using an assessment checklist. The following are indicators for material expert validation grids.

Table 1. Expert Validation Grid Indicators For Booklet Material Regarding Education On Preventing Flour Albus In Adolescent Girls

Variable	Aspect the Assessed	Indicator Evaluation	No. Statement
Media booklet about education on preventing flour albus in adolescent girls	Aspect Screen	Color composition against background	1
		<i>background</i>	
	Design View	Layout (<i>Layout</i>)	2
		Title clarity	3
		Design attractiveness	4
	Ease of Use	Systematic presentation	5
		Aspect	Ease of operation
	Navigation function		7
	Make teaching and learning activities easier		8
	Use of letters		9
Use of illustrations	10		

The material expert questionnaire has 18 statements with a Likert scale of 1 to 5 with details: 1 (very bad), 2 (not good), 3 (fairly good), 4 (good), and 5 (very good). Then the expert validation grid assessment categories are presented in booklet media regarding education on preventing flour albus in young women

Table 2. Categories Of Media Assessment Of Booklets Regarding Education On Preventing Flour Albus In Adolescent Girls

Range Score	Criteria
10.0-17.5	Very No Good
17.6-25.0	No Good
25.1-32.5	Good
32.6-40.0	Very Good

The assessment category in the media booklet regarding education on the prevention of flour albus in young women has an important role in measuring students' understanding of the flour albus that is taught and the prevention of this disease. This assessment category also provides an effective framework for students to develop a deeper understanding of the health risks of flour albus. The media booklet instrument grid regarding education on preventing flour albus in adolescent girls is presented in table 3 below:

Table 3. Media booklet regarding education on preventing flour albus in adolescent girls

Variable	Indicator Evaluation	No. Item
Media booklet about education on preventing flour albus in adolescent girls	Clarity of learning objectives	1
	Suitability of material and objectives	2
	Systematic serving	3,4
	Completeness of information	5,6,7
	Interaction	8
	To read	9,10
	Clarity of information	11
	Language use	12,13,14
	Ease of use of the module	15
	The attractiveness of using the module	16
	Ease of learning	17,18
	Increased motivation	19,20,21, 22
	Use of letters	23,24
	Use of illustrations, graphics, photos	25,26,27, 28
	Layout (<i>Layout</i>)	29
	Display design	30
Total		30

After explaining the indicator grid for students' responses to the use of booklet media, it was then measured using descriptive statistical tests in the form of a small group respon test below table of booklet media categories regarding education on preventing flour albus in adolescent girls

Table 4. Booklet media categories regarding education on preventing flour albus in adolescent girls

Range Score	Criteria
30.0 – 52.50	Very No Good
52.51 – 75.00	No Good
75.01 – 97.50	Good
97.51 – 120.00	Very good

The development of 4-D model tools consists of four stages, namely define, design, develop, and disseminate.

The first stage is Define

The define stage in developing booklet media regarding Flour Albus prevention education for young women involves identifying clear needs and goals. Here, it is important to understand in depth what young women need in terms of information on preventing vaginal discharge, such as knowledge about signs and symptoms, risk factors, and preventive steps that can be taken. In addition, a good understanding of the target audience, such as their level of knowledge, media preferences, and specific needs, must also be obtained to ensure that the booklet developed meets their needs and is well received by young women.

The second stage is design

Once the needs and objectives have been determined, the design stage involves designing the structure and content of the booklet in detail. The design must consider a language style that is appropriate to young women's understanding, as well as an attractive visual design that suits their preferences. Material must be structured and easy to understand, taking into account the limitations of teenagers' understanding and concentration. The use of illustrations, graphs and diagrams can also enrich the content and help facilitate understanding.

The third stage is Development

The development stage involves the process of creating a booklet based on a previously prepared design. The development team works to produce accurate, relevant and informative content about vaginal discharge prevention. This involves writing text, creating images or illustrations, as well as preparing the overall layout. During the development process, it is important to carry out repeated revisions based on feedback from reproductive health experts and young women themselves to ensure that the contents of the booklet meet their needs and are easy to understand.

Fourth Stage Disseminate

The disseminate stage is the stage of distributing the booklet to young women in high schools and the wider community. This dissemination can be done in various ways, such as direct distribution in schools, health education events, or through online platforms used by teenagers. In addition, it is also important to include a guide to using the booklet as well as contact information for further assistance or consultation. Periodic evaluation of the use of booklets is also needed to assess the effectiveness and success of disseminating vaginal discharge prevention information to young women. Thus, the disseminate stage ensures that the information presented in the booklet can be accessed and utilized optimally by the target audience. The research and development stages can be seen as shown in the following figure.



Figure 1. 4D Model Development Stage

3. RESULTS AND DICUSSION

3.1 Define Stage

The Define stage is the first step in developing booklet media regarding education on preventing Flour Albus for young women. At this stage, the main focus is defining the requirements for learning and collecting information related to students' needs in the learning process. The steps in the definition stage include preliminary final analysis, student analysis, task analysis, and concept analysis [44], [45]. The final initial analysis involved literature studies and distributing needs questionnaires to young women as samples in the research. The results of this analysis will provide insight into students' needs regarding the topic of Flour Albus prevention. In addition, student analysis was carried out to ensure that the material in the booklet was appropriate to the characteristics and needs of young women. This is based on the difficulties expressed by young women in understanding information related to vaginal discharge.

Next, task analysis includes determining the types of tasks that will be included in the booklet, such as quizzes and competency tests. These tasks are designed to train young women's ability to understand Flour Albus prevention information and measure their achievement in understanding the material [46], [47]. Finally, concept analysis was carried out to identify the main concepts that would be presented in the booklet and arrange them systematically in a concept map. Thus, the Define stage is an important foundation in developing this booklet media by ensuring that the material presented is in accordance with the needs and characteristics of young women as the target audience.

3.2 Design Stage

The Design stage is the phase carried out after completion of the Define stage. At this stage, researchers began to design booklet media which would be developed based on the results of the previous definition stage. This design process includes several important steps, including the preparation of Test Standards. Preparing Test Standards is the main step in the Design stage carried out by researchers [48], [49]. The aim is to ensure that the content to be delivered in the booklet complies with established standards. Thus, this test aims to ensure that the information conveyed is of high quality and accuracy.

Apart from that, Media Selection is also an important part of the Design stage. Researchers must choose the most appropriate media to convey information about preventing Flour Albus to young women. This media must be able to attract the attention of the target audience and make it easier for them to understand the information conveyed. Not only that, in the Design stage the appropriate format for the booklet media is also selected [50], [51]. Researchers must consider the most effective format for conveying information, both visually and in text form. The format chosen should enable young women to easily access and understand the information presented in the booklet. Thus, the Design stage is a crucial step in developing this booklet media by ensuring that the resulting design meets the needs and preferences of the target audience.

3.3 Development Stage

The development stage is carried out after the design stage. This development stage was carried out to realize the booklet media design that had been determined in the previous stage [52], [53]. The development stage consists of two stages, namely as follows: Validation carried out consists of validation by media experts. As for those who become media expert validators. The results of this material expert validation determine whether the product is suitable for testing on students. The following are the results of media expert validation of booklet media

Table 5. Results of media expert validation of booklet media

Variable	Aspect the Assessed	Indicator Evaluation	Results
media booklet about education on preventing flour albus in adolescent girls	Aspect Screen Design	Color composition against background <i>background</i>	4
		Layout (<i>Layout</i>)	4
	View	Title clarity	4
		Design attractiveness	3
	Ease of Use Aspect	Systematic presentation	4
		Ease of operation	4
		Navigation function	3
		Make teaching and learning activities easier	4
		Use of letters	4
		Use of illustrations	4
Total			38
Category			Very good

Based on the table above, it can be seen that the media booklet regarding education on preventing flour albus in young women is categorized as very good and suitable for use. The following presents students' responses to the use of booklet media regarding education on preventing flour albus in adolescent girls

Table 6. Student responses to the use of booklet media regarding education on preventing flour albus in adolescent girls

Intervals	Category	F	Mean	Med	Max	Min
30.0 0 – 52.50	Very No Good	0	1 10	108	120	95
52.51 – 75.0 0	No Good	0				
75.5 1 – 97.5 0	Good	2				
97.5 1 – 120.0 0	Very good	28				

Based on the table above, it can be seen that students' responses to the use of booklet media regarding education on preventing flour albus in young women are categorized as very good. This means that booklet media can be useful for students. Students' responses to the use of booklet media regarding education on the prevention of Flour Albus in young women are important in evaluating the effectiveness and success of delivering information. Student responses can provide valuable insight into the extent to which the booklet was successful in conveying information clearly and easily to understand, while arousing their interest and understanding of the topic. Additionally, student responses can also provide feedback on certain aspects of the booklet that may need to be corrected or refined to increase its quality and relevance. By understanding student responses in depth, developers can make the necessary adjustments so that the booklet is more effective in achieving its educational goals and has a greater positive impact in efforts to prevent vaginal discharge in adolescent girls. Below is table of a picture of the results of a media booklet about education on preventing flour albus in young women

Table 7. Results of a media booklet about education on preventing flour albus in young women

Cover booklet	
page to 1	
page to 2	
page to 3	

3.4 Deployment Stage

The stage of disseminating the booklet to young women in high schools and the wider community is an important step in ensuring that information on preventing Flour Albus is conveyed effectively. Distribution of

booklets can be done in various ways, including direct distribution at schools, health education at schools, or through online platforms used by teenagers. Apart from that, collaboration with schools and local health institutions can also expand the reach of distribution. During the deployment process, it is important to include guidance on how to use the booklet as well as contact information for further assistance or consultation [54], [55]. Regular evaluation of the use of booklets is also needed to assess the effectiveness and success of disseminating vaginal discharge prevention information to young women. In this way, the information presented in the booklet can be accessed and utilized optimally by young women in high schools and the wider community, thus having a positive impact in increasing awareness and knowledge about reproductive health among young women.

This research is in line with research conducted by Wilson et al [32]. In this research there is a lack of specifically exploring the needs and preferences of young women regarding information on preventing Flour Albus in the form of booklet media. Although there are efforts to provide information about reproductive health to adolescents, the lack of focus on Flour Albus and the specific needs of adolescent girls can result in a mismatch between the information provided and their needs. Therefore, this gap highlights the importance of conducting in-depth research to better understand the perspectives, needs, and preferences of adolescent girls regarding the topic of Flour Albus prevention, as well as how booklet media can be effectively designed to meet their needs. By improving understanding of this gap, further research can make a more significant contribution to improving efforts to prevent vaginal discharge in adolescent girls.

The uniqueness of developing booklet media regarding Flour Albus prevention education for young women lies in its holistic approach and focus on the specific needs of the target audience. In the development process, the development team not only considered the medical aspects of vaginal discharge, but also took into account psychosocial factors relevant to young women, such as the language used, attractive visual design, and the active involvement of young women in the learning process. Apart from that, the content compiled is also updated with the latest information about preventing vaginal discharge, including signs and symptoms, risk factors, and preventive steps that can be taken. Thus, the development of this booklet media makes a new contribution in presenting comprehensive and relevant information for young women in overcoming their reproductive health problems in an effective and integrated manner.

The implication of developing booklet media regarding Flour Albus prevention education for young women is to increase their awareness and knowledge about reproductive health. By providing accurate, relevant and easy to understand information in the form of a booklet, it is hoped that young women will be better able to identify the signs and symptoms of vaginal discharge, understand the associated risk factors and implement appropriate preventive measures. In addition, it is hoped that the adoption of healthy behavior in maintaining their reproductive health will increase, which in turn can reduce the risk of reproductive health problems in the future. Apart from the direct benefits for young women, the development of this booklet media can also make a wider contribution in reducing the stigma towards reproductive health topics in society, as well as help create a more open and supportive environment in overcoming this health problem holistically.

Although the development of booklet media regarding education on preventing Flour Albus for young women has significant benefits, there are several limitations that need to be considered. First, in the context of sampling, the use of purposive sampling may limit the generalization of results to the general population of adolescent girls. Second, limited resources and time may limit the depth and scope of content in the booklet. Additionally, depending on the accessibility and distribution of the booklet, there is the potential that not all young women will be able to access and utilize it optimally. In addition, the booklet's effectiveness in improving the knowledge and behavior of adolescent girls may be influenced by other factors beyond the control of the study, such as the influence of their social and cultural environment. Therefore, it needs to be recognized that while these booklets can make a valuable contribution, they cannot completely solve all problems related to adolescent girls' reproductive health.

4. CONCLUSION

It can be concluded that the booklet media regarding education on preventing flour albus in young women based on expert validation is suitable for use and based on student responses is very good in increasing knowledge about the causes and prevention of flour albus. By strengthening understanding of the importance of preventing vaginal discharge and increasing access to appropriate information, it is hoped that this booklet can be an effective tool in supporting the reproductive health of adolescent girls and reducing the risk of related health problems. Researchers recommend conducting research on the female adolescent population at junior high school level.

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