

The Influence of Print Media (Leaflets) on Adolescent Girls' Knowledge of Handling Dysmenorrhea in Junior High Schools

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ABSTRACT

Purpose of the study: This study aims to determine the influence of print media (leaflets) on the knowledge of grade VIII female adolescents about handling dysmenorrhea.

Methodology: The type of research that will be used in this study is by using the pre-experimental design method, with the type of pre-test and post-test one group design. The population in this study were 65 female adolescents in grade VIII, of which 40 people experienced dysmenorrhea and 25 people did not experience dysmenorrhea. The sample in this study was 40 female adolescents in grade VIII who experienced dysmenorrhea.

Main Findings: The results of the study showed that there was an influence of printed media (leaflets) on the knowledge of female adolescents in grade VIII about dysmenorrhea with a Z coefficient value of -3.945 and an Asym.Sig (p value) of 0.0000 with an Asym.Sig value (p value) <0.05.

Novelty/Originality of this study: This study revealed that printed media in the form of leaflets can be an effective educational method in increasing the understanding of adolescent girls regarding the management of dysmenorrhea in junior high schools.

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1. INTRODUCTION

Reproductive health issues for adolescents are still a problem that needs attention [1]-[3]. Adolescent reproductive health is not only a sexual problem but also concerns all aspects of reproduction, especially for adolescent girls who will later become women who are responsible for their offspring [4]-[6]. Understanding menstruation is very necessary to be able to encourage adolescents who experience menstrual disorders to know and take the best attitude regarding the reproductive problems they experience, such as pain due to discomfort associated with menstruation called dysmenorrhea [7]-[9].

Dysmenorrhea is a symptom of pain or discomfort in the lower abdomen during menstruation to the point of disrupting daily activities that are most often found in young and reproductive women [10]-[12]. The discomfort of dysmenorrhea will affect the individual emotionally and physically so that action or treatment is needed to overcome this pain during menstruation [13]-[15]. Dysmenorrhea is often a reason for students to miss lectures so that it will interfere with academic achievement [16]-[18]. For women who work, dysmenorrhea will greatly interfere with activities so that it can reduce productivity and work quality [19]-[21]. In the United States,

a data review found that 600 million working hours were lost due to dysmenorrhea, resulting in economic losses of up to 2 billion US dollars.

Painkillers are often used by women who experience dysmenorrhea. Sometimes these drugs are purchased without a prescription from a doctor. So that in its use often brings unwanted side effects if the use of these drugs is not in accordance with the correct dosage and indications [22]-[24]. Drugs that are often used are Non-Steroidal Anti-Inflammatory Drugs, such as mefenamic acid, ibuprofen, piroxicam and others [25]-[27]. In a data review, it is said that around 20-25% of the use of Non-Steroidal Anti-Inflammatory drugs to overcome dysmenorrhea can fail, plus the possibility of experiencing gastrointestinal disorders in the use of this drug [28], [29].

Some women experience pain and cramps during menstruation [30], [31]. The pain usually occurs in the lower abdomen. There are two types of dysmenorrhea. If the pain is not accompanied by a history of pelvic infection or normal pelvic conditions, it is called primary dysmenorrhea. Symptoms are characterized by vomiting, nausea, headache, back pain and dizziness [32], [33].

In health counseling, there are several teaching aids that are often used or also called AVA (Audio Visual Aids) [34], [35]. There are several media that can be used in conducting counseling, including printed media (booklets, leaflets, flyers, flipcharts, rubrics, posters) and electronic media (television, radio, video, slides, film strips), in the research conducted at Padang Bolak I State Junior High School here the media chosen as an alternative is printed media (leaflets). Leaflet media can be stored for a long time, if you forget it, you can look at it again and it can be used as reference reading material. While videos have advantages, one of which is that they can attract the attention of respondents.

Based on a preliminary survey conducted by researchers at Padang Bolak I State Junior High School, the total number of students in grade VIII was 103 people, an interview was conducted at Padang Bolak I State Junior High School to 15 female students showing that 5 female students understood about dysmenorrhea and the actions in handling it according to the doctor's recommendations in dealing with dysmenorrhea and 10 female students did not know about dysmenorrhea and the actions in handling dysmenorrhea. So it is concluded that some female students who experience dysmenorrhea do not know about the actions in handling dysmenorrhea.

Previous research conducted by Silaban et al., [36] highlighted the importance of knowledge and attitudes of adolescent girls towards dysmenorrhea in managing menstrual pain. This study focuses more on the relationship between knowledge, attitudes, and actions taken by high school students to overcome dysmenorrhea. Meanwhile, the current study emphasizes the influence of print media, especially leaflets, in improving the knowledge of adolescent girls at the junior high school level on how to overcome dysmenorrhea. Gap analysis between the two studies shows differences in the intervention approach, where the previous study focused more on internal factors (individual knowledge and attitudes), while this study emphasizes the use of media as a tool to improve adolescent knowledge, especially at lower education levels (junior high school).

The novelty of this study is that it offers a new approach by focusing on the influence of printed media, namely leaflets, in increasing the knowledge of adolescent girls about handling dysmenorrhea at the junior high school level. Unlike previous studies that focused more on internal factors such as adolescent knowledge and attitudes towards dysmenorrhea, this study tests the effectiveness of media as an educational tool that can reach more adolescents in a simple and easy-to-understand way. Thus, this study contributes to the understanding of effective ways to convey information about dysmenorrhea among adolescent girls.

This study is very important considering the high prevalence of dysmenorrhea among adolescent girls, which often interferes with daily activities and affects their quality of life. Increasing adolescent knowledge about proper treatment can help reduce the negative impact of this condition. In addition, the use of print media as a cheap and effective educational method provides a practical solution that can be implemented in schools, especially at the junior high school level, to increase awareness and ability of adolescents to better manage dysmenorrhea. Based on this background, the aim of this study was to determine the influence of print media (leaflets) on the knowledge of grade VIII female adolescents regarding the treatment of dysmenorrhea.

2. RESEARCH METHOD

2.1. Type and Design of Research

The type of research that will be used in this study is the pre-experimental design method, specifically employing the pre-test and post-test one group design [37]. In this method, data will be collected from a single group of participants before and after the intervention, without the inclusion of a comparison group. The purpose of this design is to assess the impact of the intervention such as the distribution of leaflets on handling dysmenorrhea by comparing the participants' knowledge before and after the intervention. While this design does not allow for a direct comparison with a control group, it still provides valuable insights into the effectiveness of the intervention within the targeted group.

2.2. Population and Sample

Population is the entire researcher or object being studied [38]. The population in this study were 65 female adolescents in grade VIII, of which 40 experienced dysmenorrhea and 25 did not experience dysmenorrhea, at Padang Bolak I State Junior High School, Padang Bolak District, North Padang Lawas Regency.

Sample is an object studied and is considered to represent the entire population. The sampling technique in this study used total sampling, namely a sampling technique where the number of samples is the same as the population because the population is less than 100, the entire population is used as a research sample. The sample in this study was 8th grade female adolescents who experienced dysmenorrhea at Padang Bolak I State Junior High School, Padang Bolak District, North Padang Lawas Regency, as many as 40 people.

2.3. Data Collection Procedures

Primary data in this study used an interview method in the form of a questionnaire, namely data obtained directly from the source. The questionnaire contains a list of questions related to the research problem that are directly filled out by respondents, with the hope that they will provide responses to the list of questions that will be distributed to female students of class VIII Padang Bolak I State Junior High School, Padang Bolak District, North Padang Lawas Regency.

2.4. Data Analysis Methods

Univariate analysis aims to explain or describe the characteristics of each research variable. In general, univariate analysis only produces frequency distributions that include education, mass media/information, socio-cultural and economic, environment, experience, age. The statistical test used is the Wilcoxon signed rank test, a non-parametric test used to analyze paired data because there are two different treatments. The Wilcoxon signed rank test is used if the data is not normally distributed. The basis for making decisions to accept or reject H_0 in the Wilcoxon signed rank test, if the probability (Asymp.Sig) <0.05 then H_0 is rejected and H_a is accepted (there is a relationship between leaflet print media and adolescent girls' knowledge about handling dysmenorrhea).

3. RESULTS AND DISCUSSION

The results of the study on the influence of print media (leaflets) on the knowledge of female adolescents in grade VIII about handling dysmenorrhea at Padang Bolak I State Junior High School, Padang Bolak District, North Padang Lawas Regency with a sample of 40 female adolescents who experienced dysmenorrhea. The complete results of the study can be seen below:

3.1. Univariate Results

Table 1. Frequency Distribution of Age of Adolescent Girls with Dysmenorrhea Who Were Given Print Media (Leaflets)

No	Age	Frequency	Percentage (%)
1.	13 Years	3	7.5
2.	14 Years	6	15
3.	15 Years	31	77.5
Total		40	100

Based on Table 1, it is known that of the 40 female teenagers, the majority were in the 15 year age group, as many as 31 people (77.5%) and the minority were in the 13 year age group, as many as 3 people (7.5%).

Table 2. Frequency Distribution of Knowledge of Adolescent Girls Before Being Given Print Media (Leaflets)

No	Knowledge	Frequency	Percentage (%)
1.	Good	14	35
2.	Enough	20	50
3.	Less	6	15
Total		40	100

Based on Table 2, it is known that of the 40 female adolescents who had dysmenorrhea before being given printed media (leaflets), the majority were in the sufficient knowledge group, namely 20 people (50%) and the minority were in the inadequate knowledge group, namely 6 people (15%).

Based on the results of a study of 40 female adolescents, only 5 people knew about drugs that could relieve dysmenorrhea and the drugs they bought were not based on a doctor's prescription, resulting in unwanted

side effects. In addition, not a single female adolescent visited a health worker for consultation on handling dysmenorrhea.

Table 3. Frequency Distribution of Knowledge of Adolescent Girls After Being Given Print Media (Leaflets)

No	Knowledge	Frequency	Percentage (%)
1.	Good	30	75.5
2.	Enough	7	17.5
3.	Less	3	7.5
Total		40	100

Based on Table 3, it is known that of the 40 female adolescents who had dysmenorrhea after being given printed media (leaflets), the majority were in the good knowledge group, namely 30 people (75.5%) and the minority were in the sufficient knowledge group, namely 3 people (7.5%).

The results of the study showed that the majority of knowledge of female adolescents at Junior High School 1 Padang Bolak after being given printed media (leaflets) was in the good knowledge category. This proves that printed media (leaflets) can improve female adolescents' knowledge about dysmenorrhea. Female adolescents also already know the side effects of freely consuming drugs purchased at the shop to relieve pain caused by dysmenorrhea. In addition, female adolescents also already know that a healthy lifestyle will reduce the incidence of dysmenorrhea and will consult with health workers about the prevention and treatment of dysmenorrhea.

3.2. Bivariate Results

The research data on knowledge from 40 respondents were tested for data normality using "Shapiro Wilk" with the following results:

Table 4. Distribution of the results of the normality of knowledge of adolescent girls before and after being given printed media (leaflets).

Knowledge	p-value	Data Distribution
Before	0.000	Not Normal
After	0.000	Not Normal

Based on table 4. above shows that the data is not normally distributed, because the p-value before being given printed media (Leaflet) is 0.000 (<0.05) and after being given printed media (Leaflet) is 0.000 (<0.05) so to find out whether or not there is an influence of knowledge before and after being given printed media (Leaflet) the Wilcoxon Test is used. The results can be seen in table 5 as follows:

Table 5. Statistical Test of the Influence of Knowledge of Adolescent Girls about Dysmenorrhea Before and After Being Given Print Media (Leaflets)

Knowledge	N	Mean Rank	Std. Deviation	Koefisien Z	p-value
Before	40	0.00	0.687	-3.945	0.000
After	40	9.00	0.616		

Based on Table 5. the results obtained that the average knowledge score before being given printed media (leaflet) was 0.00 with a standard deviation of 0.687, while the average knowledge score after being given printed media (leaflet) was 9.00 with a standard deviation of 0.616. The results of the study showed that the adolescent knowledge score increased by 9.00 with a standard deviation difference of 0.071. The results of the Z coefficient value were -3.945 and Asym.Sig (p value) was 0.000. This shows that the Asym.Sig value (p value) <0.05 then H_0 is rejected. So it can be concluded that there is a significant difference (there is an influence) in respondents' knowledge about dysmenorrhea before and after being given printed media (leaflet).

The reason for the influence of health education and attitudes in handling dysmenorrhea in female students has a significant influence because every human action is based on their knowledge. Female students understand, knowledge and attitudes in handling dysmenorrhea well.

This study has significant implications in the development of health education strategies for adolescent girls, especially related to the management of dysmenorrhea. The results of the study are expected to provide new insights for educators and health workers in designing effective counseling programs, by utilizing printed media such as leaflets as a tool to improve adolescent knowledge. In addition, these findings can be used to support health education policies in schools, thereby helping adolescent girls to better understand and manage dysmenorrhea symptoms in a better and more informative way.

This study has several limitations, including the pre-experimental design that did not involve a control group, so the results obtained only reflect changes in the group given the intervention without a comparison. This

makes it difficult to draw conclusions about stronger cause-and-effect relationships. In addition, limitations in the number of samples and the context that is limited to one location or group can also affect the generalization of the results of this study to a wider population.

4. CONCLUSION

Based on the research that has been conducted, it can be concluded that there is an influence of printed media (leaflet) on the knowledge of female adolescents in grade VIII about dysmenorrhea with the results of the Z coefficient value of -3.945 and Asym. Sig (p value) of 0.0000 with an Asym. Sig value (p value) <0.05. Further research is suggested to use experimental design with control group to obtain stronger evidence regarding the effectiveness of print media in improving adolescent knowledge about dysmenorrhea. In addition, future research can involve larger sample and various locations to increase external validity and generalizability of findings.

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