

# The Influence Of Lectures And Booklet 'Clean Menstruation, Say No To Disease!' On Knowledge, Attitudes, And Menstrual Hygiene Behaviors Among Female Students Of SMK N 1 Kalibagor

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## ARTICLE INFO

## ABSTRACT

### Keywords:

Knowledge, Attitude, Behavior, Menstrual Hygiene, Adolescent Girls

Menstrual hygiene is a woman's cleanliness during menstruation to prevent diseases and enhance well-being. Health education is necessary to improve adolescent girls' knowledge, attitudes, and behaviors regarding menstrual hygiene. The study aimed to determine the effect of health education using lecture and booklet methods on the knowledge, attitudes, and behaviors of menstrual hygiene among female SMK Negeri 1 Kalibagor students. This quantitative research used a pre-experimental method. The design employed the one-group pre-post-test design. The sample consisted of 50 female students selected through Probability Sampling and Simple Random Sampling techniques. The research results indicated improved knowledge, attitudes, and behaviors related to menstrual hygiene using lectures and booklets before and after health education. There were differences in knowledge ( $p=0.00$ ), attitudes ( $p=0.00$ ), and behaviors ( $p=0.00$ ) of adolescent girls regarding menstrual hygiene before and after the intervention. The "Clean Menstruation, Disease Goes Away!" booklet has a significant effect on the knowledge, attitudes, and behaviors of female students of SMK Negeri 1 Kalibagor regarding menstrual hygiene.

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## 1. INTRODUCTION

Adolescence is a transitional developmental period between childhood and adulthood, encompassing biological, cognitive, and socio-emotional changes. This phase is commonly referred to as puberty. The World Health Organization defines individuals aged ten to nineteen years as adolescents. The distinctive characteristics of adolescence include challenges and adventures in trying new things, a high thirst for knowledge, and the courage to take short- to long-term risks on various issues, ranging from physical to mental health [1]. According to the United Nations International Children's Emergency Fund, adolescents make up about 16% of the total global population, while in Indonesia, based on data from the Central Statistics Agency in 2019, there are approximately 64.9 million adolescents, accounting for 24.1% of the entire Indonesian population. According to the Central Statistics Agency of Central Java, the number of adolescents is 2.35 million. As individuals transition into adolescence, they experience physical development. This physical development is what sets it apart from the preceding stage [2].

Primary and secondary sexual characteristics are two features within the stage of physical development unique to females regarding their sexual development. The maturation of reproductive organs, leading to the onset of menstruation, is a primary sexual characteristic of females. Secondary sexual characteristics in females include the enlargement of breasts, the growth of hair in the underarm and genital areas, broadening of hips, and a change in voice to a higher pitch [2]. Apart from physical development, adolescent girls also undergo reproductive changes. Adolescent girls will experience menstruation. The ages of ten to fifteen years mark the period of first menstruation experienced by adolescents [3].

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Overall well-being, which includes mental, social, and physical aspects, is an indication of reproductive health, besides the absence of disorders or diseases related to the human reproductive system and function. Reproductive health is crucial for both males and females, but women have a reproductive system that is more sensitive to diseases, making this an area of emphasis. During menstruation, women must maintain hygiene, especially in the vaginal area. Hygiene during menstruation is commonly referred to as menstrual hygiene [4].

Menstrual hygiene involves a woman's self-care during menstruation to prevent disease and enhance well-being [5]. Roughly 35%-42% of adolescents and 27%-33% of young adults worldwide exhibit poor menstrual hygiene behavior and experience reproductive tract infections. Based on statistics, in Indonesia, 43.3 million female adolescents aged 10-14 years have poor menstrual hygiene behavior. In Central Java province, there are 5.2 million adolescents exhibiting poor menstrual hygiene behavior. This behavior arises from adolescents neglecting their feminine hygiene or lacking proper knowledge about menstrual hygiene. Human life status in later years can be determined by menstrual hygiene during adolescence, as it is one of the determinants of health status. Adolescents need to prepare themselves with knowledge, attitudes, and actions to achieve healthy reproductive organs [5].

Health education for adolescent girls by healthcare professionals regarding these issues is crucial. Education isn't limited to mere question-and-answer discussions; various media can be employed to enhance knowledge on a subject. Health education methods are diverse, including lectures. A lecture is an oral method of conveying information by a speaker to an audience. The media used in health education significantly influences audience knowledge. Educational media encompass tools and efforts to convey messages and information on a subject from the communicator to the target, utilizing both print and electronic media, thereby increasing target knowledge and potentially altering individual health behavior [6]. Most individuals, especially adolescents, prefer engaging learning through attractive media. The Communication, Information, and Education (CIE) program is a strategy that can be implemented for the general public, specifically school students, to enhance health education and knowledge. The material delivery can be enhanced by using appealing media, such as booklets. Booklets should contain accurate information about proper menstrual hygiene behavior [4]. Based on this background, this research article aims to explore the influence of health education using the lecture method and the booklet 'Clean Menstruation, Say No to Disease!' on knowledge, attitudes, and menstrual hygiene behaviors among female students at SMK N 1 Kalibagor.

## 2. METHOD

This study is a quantitative research that employs a pre-experimental method. The design to be used in this study is the one-group pre-post-test design. The participants in this study are female students of Grade X at SMA Negeri 1 Kalibagor. The sample consists of 50 female students selected using Probability Sampling and Simple Random Sampling techniques.

Inclusion Criteria:

- a. The sample consists of female students of SMA Negeri 1 Kalibagor who have already experienced menstruation.
- b. The sample has reading and writing abilities, enabling them to comprehend information presented visually, in writing, or verbally.
- c. The sample is available to participate as respondents in the study.

Exclusion Criteria:

### Non-Cooperative Female Students

Data collection is conducted among female students of SMA Negeri 1 Kalibagor. The research takes place during the months of March-April 2023. The data collection instrument is a questionnaire about knowledge, attitudes, and menstrual hygiene behavior. In this study, the questionnaire used is adapted from Cut Rita Zahara's research titled "Relationship Between Personal Hygiene Education and Adolescent Girls' Behavior During Menstruation at SMU Cut Nyak Dhien Langsa."

The data collection process proceeds as follows: first, a pre-test is administered to the respondents on March 20, 2023, by providing the questionnaire on knowledge, attitudes, and behavior. After the pre-test, education is given using lecture methods and booklet distribution. Subsequently, a post-test is conducted to assess knowledge on the same day. The post-test concerning attitudes and behavior will be administered one month after the education, specifically on April 27, 2023. The obtained data will be analyzed using the Wilcoxon test. This study has undergone ethical review by the FIKES UMP ethical committee with protocol number KEPK/UMP/39/IV/2023."

### 3. RESULTS AND DISCUSSION

#### Research Results

The research was conducted at SMK Negeri 1 Kalibagor on March 20, 2023, for pretest and intervention, and on April 27, 2023, for post-test. The study was carried out with 50 respondents who met the inclusion criteria. The sample of 50 respondents was randomly selected from the names of female students at SMK Negeri 1 Kalibagor. Informed consent was obtained from all 50 respondents prior to the study. The filled informed consent forms were collected on the same day, totaling 50. The results of data processing will be presented in tabular form.

#### Respondent Characteristics

The sample size for this study was 50 female students from SMK Negeri 1 Kalibagor. The findings show that the majority of menarche occurrences were at the age of 13, accounting for 15 female students (30%). Another characteristic of the respondents is the mothers' highest education level, with high school being the dominant choice for 20 respondents (40%). Regarding menstrual hygiene education, the majority of students (70%) answered that they had not received it.

#### Description of Female Students' Knowledge, Attitudes, and Behaviors Regarding Menstrual Hygiene Before and After Intervention

- a. Description of female students' knowledge regarding menstrual hygiene before and after intervention

The results of measuring female students' knowledge about menstrual hygiene before and after the intervention are shown in the following table:

**Table 1** Distribution of Female Students' Knowledge Categories about Menstrual Hygiene Before and After Intervention

No	Knowledge	Before		After	
		N	%	N	%
1.	Good	8	16%	50	100%
2.	Enough	27	54%	0	0%
3.	Not Enough	15	30%	0	0%

Based on the table above, before the intervention, the highest level of knowledge among female students was "fair," with 27 students (54%). After the intervention, there was an improvement in knowledge, with 50 students (100%) achieving a "good" level of knowledge.

- b. Description of Female Students' Attitudes Regarding Menstrual Hygiene Before and After Intervention

The results of measuring female students' attitudes about menstrual hygiene before and after the intervention are shown in the following table:

**Table 2** Distribution of Female Students' Attitude Categories about Menstrual Hygiene Before and After Intervention

No	Knowledge	Before		After	
		N	%	N	%
1.	Good	4	8%	47	94%
2.	Enough	45	90%	3	6%
3.	Not Enough	1	2%	0	0%

The table above shows that before the intervention, most female students had a "fair" attitude, with 45 students (90%). After the intervention, there was an improvement in attitude, with 47 students (94%) having a "good" attitude.

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c. Description of Female Students' Behaviors Regarding Menstrual Hygiene Before and After Intervention

The results of measuring female students' behaviors about menstrual hygiene before and after the intervention are shown in the following table:

**Table 3** Distribution of Female Students' Behavior Categories about Menstrual Hygiene Before and After Intervention

No	Knowledge	Before		After	
		N	%	N	%
1.	Good	5	10%	47	94%
2.	Enough	8	16%	3	6%
3.	Not Enough	37	74%	0	0%

The table above indicates that before the intervention, most female students had a "poor" behavior, with 37 students (74%). After the intervention, there was an improvement in behavior, with 47 students (94%) displaying a "good" behavior.

**Influence of Health Education Using Lecture and Booklet Methods on Knowledge, Attitudes, and Behaviors of Female Students regarding Menstrual Hygiene**

a. Influence of Health Education Using Lecture and Booklet Methods on Female Students' Knowledge about Menstrual Hygiene

To assess changes in knowledge among female students, the Wilcoxon test was used. The Wilcoxon test is a non-parametric test (for non-normally distributed data) used for paired comparison of data before and after an intervention.

**Table 4** Wilcoxon Test Results for Female Students' Knowledge

Attitude Variable	N	Value P
Menstrual Hygiene attitude scores before counseling	50	
Menstrual Hygiene attitude scores after counseling	50	$P= 0.00$

The P-value is 0.00, which is less than  $< 0.05$ . This implies that "Ho is rejected." It can be concluded that there is a difference between Pre-Test and Post-Test Knowledge, indicating an influence of the "Clean Menstruation, Say No to Disease!" booklet media on the level of knowledge among female students at SMK N 1 Kalibagor.

b. Influence of Health Education Using Lecture and Booklet Methods on Female Students' Attitudes about Menstrual Hygiene

**Table 5** Wilcoxon Test Results for Female Students' Attitudes

Attitude Variable	N	Value P
Menstrual Hygiene attitude scores before counseling	50	
Menstrual Hygiene attitude scores after counseling	50	$P= 0.00$

The P-value is 0.00, which is less than  $< 0.05$ . This implies that "Ho is rejected." It can be concluded that there is a difference between Pre-Test and Post-Test Attitudes, indicating an influence of the "Clean Menstruation, Say No to Disease!" booklet media on the attitudes of female students at SMK N 1 Kalibagor.

c. Influence of Health Education Using Lecture and Booklet Methods on Female Students' Behaviors about Menstrual Hygiene

**Table 6** Wilcoxon Test Results for Female Students' Behaviors

Attitude Variable	N	Nilai P
Menstrual Hygiene behavior scores before counseling	50	
Menstrual Hygiene behavior scores after counseling	50	$P= 0.00$

P-Value is 0.00. Since the value 0.00 is less than  $< 0.05$ , it can be concluded that "Ha is accepted." This means that there is a difference between Pre-Test and Post-Test Behaviors, and it can also be inferred that there is an influence from the "Clean Menstruation, Say No to Disease!" booklet media on the level of behavior of female students at SMK N 1 Kalibagor.

## Discussion

### **Influence of Lecture and Booklet "Clean Menstruation, Say No to Disease!" on Knowledge of Menstrual Hygiene**

Knowledge of adolescent girls about menstrual hygiene is crucial for preventing reproductive tract infections and urinary tract infections, especially diseases that are susceptible to occur in girls [5]. There are many ways to enhance knowledge and transform perceptions and behaviors towards a positive direction, one of which is through health education [7]. Health education using the lecture and booklet methods "Clean Menstruation, Say No to Disease!" can improve the knowledge of adolescent girls at SMK N 1 Kalibagor. This is in line with the study conducted by [8], which indicates that health education about menstruation has an influence on the knowledge and attitudes of adolescents in facing menstruation. This finding is also consistent with the research by [9], which states that health education programs result in an increase in knowledge (91%) regarding menstrual hygiene among adolescent girls. It is evident that health education significantly affects an individual's knowledge level.

Knowledge can be influenced by several factors, including age, intelligence, socio-cultural environment, information, and experience. Environmental factors affected the questionnaire results in this study. The environment during questionnaire completion was not conducive, as there were respondents who did not cooperate despite being warned several times by the researcher. Knowledge can be acquired through perception of a specific object [10]. Perception occurs through human senses, namely vision, hearing, smell, taste, and touch. Most human knowledge is acquired through sight and hearing [11]. The use of media also plays a role in this study, as appropriate instructional media can stimulate new interests and desires, and generate activity and stimulation in the learning process.

### **Influence of Lecture and Booklet "Clean Menstruation, Say No to Disease!" on Attitudes toward Menstrual Hygiene**

Attitude is an individual's response to a stimulus [12]. After an individual becomes aware of an object or stimulus, the next step is to form an attitude towards that stimulus. Attitude is formed after the process of becoming informed. The information obtained becomes a suggestive message that forms the affective basis for evaluating something, leading to a certain attitude. Health education using the lecture and booklet methods "Clean Menstruation, Say No to Disease!" can improve the attitudes of adolescent girls at SMK N 1 Kalibagor. This is in line with the research conducted by [13], which found differences in the attitudes of adolescent girls regarding menstrual hygiene before and after being given health education using the lecture and booklet methods at Al-Ishlah Islamic boarding school in Demak ( $P = 0.00$ ).

### **Influence of Lecture and Booklet "Clean Menstruation, Say No to Disease!" on Menstrual Hygiene Behaviors**

Behavior is an individual's response to a stimulus that significantly affects the individual both internally and externally. With the improvement of knowledge and attitudes towards menstrual hygiene, there is also an impact on the behaviors of adolescent girls. This is consistent with the study by [14], which conveyed a significant influence of knowledge and attitudes on menstrual hygiene behavior ( $P = 0.000$ ). Health education using the lecture and booklet methods "Clean Menstruation, Say No to Disease!" can improve the behaviors of adolescent girls at SMK N 1 Kalibagor. Health education is highly influential in the process of behavior change. The goal of health education, particularly using booklet media, is not only to provide essential information but also to positively influence thought patterns. These thought patterns influence an individual's lifestyle behaviors (Novrianda et al., 2015). This finding aligns with the research conducted by Gunawan (2021), which states that accepting behavior rooted in good knowledge and attitudes will form lasting positive behaviors. Conversely, behavior without a foundation of good knowledge and attitudes will not endure in the long run.



#### 4. CONCLUSION

There is an influence of health education using the lecture method and the "Clean Menstruation, Say No to Disease!" booklet media on knowledge, attitudes, and behaviors of Menstrual Hygiene among female students at SMK N 1 Kalibagor with a P-value of 0.00 ( $<0.005$ ). Limitations Of The Study. The researcher did not conduct initial screening regarding the extent of information obtained about menstrual hygiene to select the appropriate sample candidates for the study. The researcher has not conducted further calibration related to the selection of the adopted questionnaire. Data collection was not solely through booklets; the researcher also conducted lectures. As a result, after testing the lecture method, it was added to the title, background, literature review, and research methods.

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