

Female Santri's Knowledge of Menstrual Health in the Pesantren Environment: A Descriptive Study at Al-Mustaqim Islamic Boarding School, Lawang

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Keywords

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Abstract

Background: Good knowledge about menstruation is essential for teenage girls to help them maintain reproductive health and keep up with personal hygiene. Though in a place such as a pesantren, the sources of information about menstrual health appear to be very limited, and, to a large extent, the topic is still treated as a taboo matter to be talked about.

Objective: The research given is a survey designed to find out the increase in female students' knowledge of menstrual health after education from health students.

Methods: The main focus of this study is a quantitative descriptive approach that deals with comparing results from the pre-test and post-test. The sampling technique that was used is quota sampling, and it involved 29 female santri representing different education levels at the Al-Mustaqim Islamic Boarding School, Lawang. The instrument was a closed questionnaire consisting of 20 questions, which were administered before and after the education session. Analysis of the data was conducted in a descriptive manner by determining the average score and the distribution of the knowledge categories.

Results: The mean score of the pre-test was 54 and then increased to 62 in the post-test. The number of students in the good knowledge category increased from 5 to 12, while the low category decreased from 9 to 4.

Conclusion: The knowledge improvement of the female students on menstrual health after education provided by university students has been proven. Interactive and context-based counseling is a very suitable method of introducing the concepts of adolescent health literacy in the pesantren environment.

1. Introduction

Physical changes generally begin to appear when adolescents reach the ages of 9 to 15. During this stage, development is not only marked by increases in height and body size but also involves various other physical changes, such as the onset of menstruation in females (1). Menstruation is a natural process within the female reproductive cycle, characterized by the periodic discharge of blood from the uterus through the vagina, and serves as an indicator that puberty has begun (2). The school years for girls are a critical period of physical, psychological, and emotional transformation, as they transition into adulthood and experience the maturation of reproductive organs (3). Proper menstrual hygiene management is a fundamental human right for all females, regardless of age (4). Education plays a vital role in providing accurate information on this matter. As highlighted by Renonti, a 2015 World Health Organization (WHO) survey revealed that adolescent girls aged 10–19 years represent one-fifth of the global population. This age group is particularly vulnerable to a range of reproductive health challenges, including early pregnancy, unsafe abortion, and sexually transmitted infections (STIs), as well as violence and sexual abuse (5).

Maintaining the health of the female reproductive organs is crucial from adolescence, as this stage is the ideal time to establish clean and healthy habits that will serve as valuable assets in the long term (6). Several approaches can be implemented, particularly through education for adolescent girls, such as health counseling or educational sessions in schools. When parents do not provide adequate information about menstruation, it may lead to increased anxiety among young girls (7). Therefore, delivering accurate information is essential to ensure that students receive reliable knowledge and are not left to seek potentially inaccurate sources on their own. One of the key practices in maintaining hygiene during menstruation is the use of sanitary pads. However, using pads that are not the appropriate size or are unhygienic may promote the growth and spread of bacteria, leading to adverse health effects such as redness, itching, pain, and even sores in the genital area. During menstruation, sweat and blood may accumulate around the vulva, creating a moist environment. Such excessive

moisture facilitates the growth of bacteria and fungi, which can result in symptoms like itching and irritation (8).

In the case of using sanitary napkins, it is advised to change them regularly, 3 to 4 times a day or every 4 hours at most. The latter is that when you have a bowel movement, it is highly recommended to clean the vagina by wiping the area from the front to the back; next, use a tissue or towel to dry the vagina, as it will prevent the moisture in the vaginal area from occurring(9). Then, in the use of underwear, it is necessary to pay attention to the fact that the underwear should be made from materials that are easy to absorb. Things like this definitely have to be promoted further among female students (10).

2. Method

The researchers have employed the quantitative descriptive method for their study. The design adopted here is a pre-test and post-test. Female students residing at Al-Mustaqim Islamic Boarding School, Lawang, are the ones targeted in this study. The quota sampling technique is the one that is used to collect the samples, the number of participants to be determined depending on class representation and education level (elementary, junior high, and senior high school). There are 29 female students, who are the total number of participants in the study. The instrument employed is a questionnaire in the form of multiple-choice questions consisting of ten questions whose purpose is to measure the basic knowledge of menstruation in terms of definition, physiological process, hygiene care, and general beliefs about menstruation. The same questionnaire is given before the counseling (pre-test) and after the counseling (post-test). The direct counseling was implemented by midwifery students for 45 minutes through educational and interactive methods, which are in accordance with the participants' age. As the presentation media, educational posters and discussions were used. To exhibit the level of changes in knowledge after the intervention, pre-test and post-test data were analyzed descriptively (11).

3. Results and Discussion

3.1 Results

This research was conducted on 29 female students of Al-Mustaqim Islamic Boarding School in Lawang whose educational levels range from elementary to senior high school. The assessment was performed via a pre-test and post-test with an instrument of 20 multiple-choice questions that evaluated the basic concept of menstruation.

Table 1. Average scores of the pre-test and post-test

No	Type of Test	Total Score	Average
1.	Pre Test	1.570	54
2.	Post Test	1.790	62

Table 1 reveals that the average score went up by 8 points after counseling on menstrual health was given.

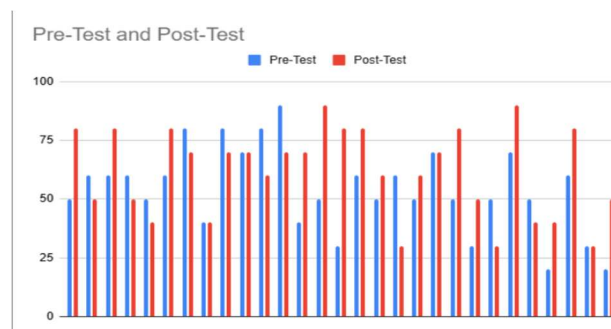


Figure 1. Graph of Pre-test and Post-test Scores

To see how the knowledge is spread across the categories, this classification was employed:

Table 2. Categories of pre-test and post-test knowledge

No	Category	Pre-test (n)	Pre-test (%)	Post-test (n)	Post-test (%)
1.	Good : ≥ 70	5	17,2%	12	41,4%
2.	Moderate : 51 - 69	15	51,7%	13	44,8%
3.	Low : ≤ 50	9	31%	4	13,8%
4.	Total	29	100%	29	100%

The data above clearly shows that prior to the awareness program, most of the participants were of the moderate knowledge category (51.7%) and low (31.0%). Following the outreach, the number of participants in the good knowledge category rose to 41.4%; in the meantime, the low group was almost eliminated, to 13.8%.

3.2 Discussion

The counseling activity done by students has been proven to be effective in reaching adolescent health literacy improvement, according to our study results. This is just in particular in the context of pesantren, which is a very special environmental setting that we have been talking about. The material presentation was done in an interactive and visual manner, which was suitable for the participants' age and educational backgrounds. The santri condition of the penetration of the information that was considered taboo or less open to discussion before can undoubtedly be improved. It has been found that the difference in scores was particularly among santri with the lowest education levels (elementary and junior high school), who only showed a few signs of progress with the intervention.

This evidence corresponds to the research carried out by Irma Fidora and Anisa Sri Utami (2022), "THE EFFECT OF REPRODUCTIVE HEALTH EDUCATION ON THE LEVEL OF KNOWLEDGE OF ADOLESCENTS". The authors of the study declare that interventions for young people in fertility clinics and community health workers can be the main driver of adolescents' reproductive health skills capacity increase. In addition, the implementation of educational approaches that are adapted to the religious environment of the pesantren should take into account the cultural norms and use proper communication so that the information can be easily received. However, among the participants are those who got lower scores in the post-test, to name a few, Anissa Putri and Dewi Fitria. This may be due to some internal factors (for instance, the concentration, the motivation for learning) or some external factors (the condition of the place while doing the post-test). On top of that, the limited time period between the counseling and the post-test has probably prohibited the process of information being deeply ingrained. In general, these outputs depict that reproductive health instruction is of great importance to be bestowed on female santri, with the requisite changes to methods and approaches that lie in tandem with the traits of pesantren institutions.

3.3 Implications

The work introduces and highlights some contributions made by the Sustainable Development Goals (SDG's), particularly in increasing the awareness of reproductive health among adolescent girls who are living in a religious community, namely the pesantren. The key examples of such implications are as follows:

3.3.1. SDG's 3: Good Health and Well-being

Female students' knowledge gain in menstrual health aids the accomplishment of the SDG target 3.7, which is to secure universal access to reproductive health information and education. Armed with thorough knowledge, santri are able to handle their menstruation hygienically and healthily; thus, not only can it prevent the occurrence of reproductive tract infections, anemia, and those psychological disorders arising from misunderstandings, but it will also lead to the improvement of their mental health condition(12).

3.3.2. SDG's 4: Quality Education

The scientific and evidence-based approach throughout the menstrual education sessions facilitates the track to Inclusive and equitable education. The disclosure of this research is that the university students' collaboration in counseling is competent in conducting sanitarians' health literacy improvement, thus backing the aptitude of target 4.7 : "MHH content and teaching methods that raise awareness for girls, boys and teachers, help challenge discriminatory gender norms and destigmatize menstruation"(13).

3.3.3. SDG's 5: Gender Equality

Persistence of the taboos related to the topic of menstruation in the pesantren environment demonstrates the inequality in access to gender-based health information, which is the result of that. The present study extends far wider by incorporating a new gender-sensitive educational approach. The new approach destigmatizes and de-marginalizes women's biological experiences and facilitates support for awareness of the founding of rights to sexual and reproductive health as included in target 5.6(14).

3.3.4. SDG's 6: Clean Water and Sanitation

An increase in menstrual hygiene knowledge also comes from the fact that clean water, proper sanitation, and adequate hygienic facilities are necessary. It is the main issue of this research; however, the topic of personal hygiene is still raised in the context of Goal 6.2(13)(15).

3.4 Limitations

This study has many restrictions that still need to be taken into account when interpreting the results. The very modest number of respondents, consisting of only 29 girls, is, admittedly, very far from ideal even to conclude that their results are representative of the entirety of students in other pesantren. Thus, the findings of the present study cannot be generally applied to other places. Moreover, the number of respondents by level of education (elementary school, junior high school, and high school) is not equal.

4. Conclusion

Before receiving health education, the female students at Al-Mustaqim Islamic Boarding School in Lawang had limited knowledge about menstrual health. This was evident from the low average pre-test scores and the high number of students categorized as having moderate to low levels of knowledge. However, after receiving interactive and age-appropriate counseling from health students, their understanding improved significantly. The post-test results showed a notable increase in the average scores, along with a shift of many students into the "good knowledge" category. These outcomes clearly indicate that targeted menstrual health education is effective in enhancing awareness and understanding among female students in the pesantren environment.

Furthermore, this study emphasizes that reproductive health education—especially when designed to fit the cultural and educational context of Islamic boarding schools—can successfully address knowledge gaps and reduce the stigma surrounding menstruation. The findings highlight the importance of providing accurate, accessible, and respectful health information to adolescent girls. Moreover, this intervention supports the advancement of several Sustainable Development Goals (SDGs), particularly those related to good health and well-being, quality education, gender equality, and clean water and sanitation.

Author Contributions

Each author has a different contribution. MAET is doing the abstract, introduction, results, discussion, and graph. EFR is doing Methodology, Introduction, Conclusion, and a graph. ANFRS is doing author contributions, funding, declaration of conflicting interest, data availability, ethical clearance, and acknowledgement. DSA is doing the article's layout design. And ACP was the person in charge.

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Declaration of Conflicting Interests

The authors declare that there are no conflicts of interest that could affect the objectivity or integrity of this study.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request. Due to privacy and ethical considerations involving human subjects, the data are not publicly available.

Ethical Clearance

This research involved human subjects, namely 29 female santri from Al-Mustaqim Islamic Boarding School, Lawang. Although explicit ethical approval was not mentioned, the study was conducted in consideration of protecting the rights and welfare of participants in accordance with applicable research standards.

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