Menstrual Hygiene Management (MHM) Education in Elementary School Students as the Implementation of Personal Hygiene Behavior during Menstruation

Heni Purwaningsih a,1,*, Nurul Istiqomah a,2, Sulastri a,3, Yuli Widyastuti a,4, Ika Kusuma Wardani b,5, Suyatno b,6

a S1 Nursing Study Program, ITS PKU Muhammadiyah Surakarta
b Nursing Profession Study Program, ITS PKU Muhammadiyah Surakarta
1 henipurwaningsih@itspku.ac.id; 2 nurulistiqomah@itspku.ac.id; 3 Lastrihicam127@gmail.com; 4 yuliwidyastuti@itspku.ac.id,
5 iakkusumsia9@gmail.com, 6 yathroibad@gmail.com
* Corresponding Author

ABSTRACT

Menstrual Hygiene Management (MHM) is the management of hygiene and health when women are menstruating. MHM components include the use and selection of sanitary napkins, frequency of changing sanitary napkins, management of single-use sanitary napkins, and access to toilets, soap, and water for cleaning. The purpose of this activity is to provide education on menstrual hygiene management as the application of behavior to maintain personal and environmental hygiene during menstruation. This community service method is carried out online (online) using the Zoom application, by providing pre and post questionnaires to measure students' knowledge about MHM at SDIT Nur Hidayah Surakarta students. The results of community service activities (PkM) showed that the number of respondents were young women who were already menstruating at the age of 11–12 years as many as 36 students and most of them had experienced menstruation. Education is done using power point media (PPT) and animated videos. The results of the pre-test showed that the majority of young women's knowledge about MHM was in the less category of 63.9%, while the category was sufficient 22.2% and the good category was 13.9%. After the education was carried out, the level of knowledge of students increased. Most of them had good categories of 83.3% and 16.7% had sufficient category knowledge and no students had poor category knowledge. It is necessary to increase the role of teachers and parents to support the improvement of reproductive health at a young age as well as the provision of communicative information media for elementary school students.

KEYWORDS
Menstruation; Menstrual Hygiene Management; Elementary School Schoolgirl

1. Introduction

Along with the increase in reproductive problems in adolescents coupled with the Covid-19 pandemic, it causes negligence in reproductive hygiene [1]. The online teaching and learning process and the limited number of school activities lead to a lack of information. Many girls do not have a proper understanding that their menstruation is a normal biological process and they only know it at menarche. Insufficient knowledge about menstruation, the menstrual cycle and Menstrual Hygiene Management (MHM) during menstruation can result in problems during menstruation such as dysmenorrhea, pelvic muscle cramps, increasing the risk of itching, infection and vaginal discharge.

Menstrual Hygiene Management (MKM) is the management of hygiene and health when women are menstruating. Girls who have experienced menarche should be able to use clean sanitary napkins, can be changed as often as possible during their menstrual period, have access to disposal, and be able to access toilets, soap and water to clean themselves in comfortable conditions with privacy maintained. In Indonesia, one in five young women do not receive information before the first menstrual period because it is considered a taboo topic. Based on the 2017 School Sanitation Profile, it was revealed that one in three schools did not have access to water and one in two schools did not have separate toilets for boys and girls. As a result, the management of menstrual hygiene among school children is minimal.

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Several previous researchers have conducted research on menstrual hygiene and used it for reference in this community service. Menstrual hygiene products: Practice evaluation researched by Parent [2]. Menstrual Health and Hygiene among Adolescents in the United States was investigated by Tran [3]. Linking menstrual hygiene with female empowerment and reproductive tract infections: Evidence from India researched by Vishwakarma [4]. Student Menstrual Hygiene Needs and School Attendance at Urban St. Louis, Missouri, District studied by Sebert Kuhlmann [5].

The impact of menstrual hygiene management on women’s work absenteeism in Burkina Faso was investigated by Krenz [6]. Linking Female Genital Schistosomiasis and Menstrual Hygiene Initiatives was investigated by Stothard [7]. The period during the pandemic: The reality of neglected Nigerian girls and women is investigated by Odew [8]. Experiences of visually impaired adolescent girls on menstrual hygiene management: a qualitative study investigated by Wera [9]. Menstrual Cup: A substitute for sanitary napkins for a plastic-free period researched by Peter [10]. Do sanitation facilities in primary and secondary schools meet the needs of Menstrual Hygiene? A study from Mzuzu City, Malawi was investigated by Yadanar [11]. The development and application of a new method to assess the level of exposure to sensitizing and irritating substances released from menstrual hygiene products was investigated by Marcelis [12]. The impact of menstrual hygiene management on women’s work absenteeism in Burkina Faso was investigated by Krenz [6].

2. Method

This community service activity is carried out online with the media zoom cloud meeting and is carried out in several stages:

2.1. Preparation stage

The service team conducted a field survey, conducted observations and interviews with guidance and counseling (BK) teachers as well as interviews and discussions with the principal of SDIT Nur Hidayah Surakarta. The leader of the service team then coordinates with the class manager and carries out an activity contract, schedule of activities, media to be used and methods/mechanisms of service activities to be carried out.

At this stage the service team also begins to collect materials and materials/media that will be used in the preparation of educational materials, the design of the media that will be used and the preparation of measuring instruments that will be used in community service activities.

2.2. Implementation stage

The service team distributed questionnaires online via https://bit.ly/PKMNurHidayah to respondents 3 days before the implementation of menstrual hygiene management education. The questionnaire consists of 3 components, namely a knowledge questionnaire with 15 questions, an attitude questionnaire with 10 questions and a behavioral questionnaire with 10 questions.

Furthermore, according to the agreed schedule on Saturday, September 4, 2021 at 08.30 WIB, the service team conducted online education and discussions with 6th grade students of SDIT Nur Hidayah Surakarta. The education delivered includes the anatomy and physiology of the female reproductive system, growth and development, the concept of menstruation and the concept of menstrual hygiene management. Education was carried out using ppt and animated video screenings about menstrual hygiene management.

2.3. Evaluation Stage

The evaluation stage was carried out by distributing the questionnaires back to the respondents after being given education.
3. Results and Discussion

Community service activities are carried out in the form of education using ppt and animated videos for 6th grade students of SDIT Nur Hidayah Surakarta. The process of this activity goes through 3 stages, namely: the preparation stage, the implementation stage and the evaluation stage. Based on the results of community service activities shown in Table 1, it can be seen that what has been done by the community service team on Saturday, September 4, 2021 at 08.30 WIB at SDIT Nur Hidayah Surakarta, the number of students who participated was 36 students of which 83.3% were aged 11 years and 16.7% were 12 years old. A total of 69.5% had menstruated and 30.5% had not menstruated.

Table 1. Distribution of Respondents Characteristics

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 years old</td>
<td>6</td>
<td>16.7</td>
</tr>
<tr>
<td>12 years old</td>
<td>30</td>
<td>83.3</td>
</tr>
<tr>
<td>Amount</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>Already menarche</td>
<td>25</td>
<td>69.5</td>
</tr>
<tr>
<td>Not menarche yet</td>
<td>11</td>
<td>30.5</td>
</tr>
<tr>
<td>Amount</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>Age of menarche 9 years</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Menarche age 10 years</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Age of menarche 11 years</td>
<td>12</td>
<td>48</td>
</tr>
<tr>
<td>Amount</td>
<td>36</td>
<td>100</td>
</tr>
<tr>
<td>Mother's education middle school</td>
<td>2</td>
<td>5.5</td>
</tr>
<tr>
<td>Mother's education high school</td>
<td>4</td>
<td>11.1</td>
</tr>
<tr>
<td>Mother's education D3</td>
<td>8</td>
<td>22.2</td>
</tr>
<tr>
<td>Mother's education S1</td>
<td>15</td>
<td>41.6</td>
</tr>
<tr>
<td>Mother's education S2</td>
<td>7</td>
<td>19.4</td>
</tr>
<tr>
<td>Amount</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2. Frequency Distribution of Knowledge Level Before and after Education on Menstrual Hygiene Management

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Sebelum</th>
<th></th>
<th>Setelah</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Good Knowledge</td>
<td>5</td>
<td>13.9</td>
<td>30</td>
<td>83,3</td>
</tr>
<tr>
<td>Enough Knowledge</td>
<td>8</td>
<td>22.2</td>
<td>6</td>
<td>16.7</td>
</tr>
<tr>
<td>Lack of Knowledge</td>
<td>23</td>
<td>63.9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Amount</td>
<td>36</td>
<td>100</td>
<td>36</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on Table 2, it was found that before education about menstrual hygiene management was carried out, most students had less knowledge of 63.9%, after education some students had good knowledge of 83.3%. The results of the pre-test showed that the level of knowledge of young women about menstrual hygiene management was the majority with a level of knowledge of 22 people (70%) and after counseling through presentations and interactive videos the post-test showed the level of knowledge of the majority had a good level of knowledge as many as 25 people (78.5%).

During the implementation of the education the students were very enthusiastic and paid close attention as shown in Fig. 1. This is evident from the many questions asked by students during the discussion session shown in the figure. The questions asked by students were about myths and taboos...
during menstruation, recommended types of sanitary napkins, how to treat genitalia during menstruation and what are allowed and not allowed during menstruation.

![Fig. 1. Menstrual Hygiene Management Education](image1)

The discussion was very interactive and communicative as shown in Fig. 2. The picture shows that the media used is very interesting, the material presented is in accordance with current conditions where some students only experience menstruation at the age of 10 and 11 years on average, so discussions and sharing are carried out based on student experience.

![Fig. 2. Discussion and Animation Video Playback](image2)

Menstruation is the event of the release of the endometrium in the form of flakes and periodic bleeding due to the influence of hormones. The main effect of the hormones estrogen and progesterone during the monthly cycle is on the endometrium. The endometrium undergoes cyclic changes, namely the growth of the endometrial wall in preparation for implantation and degeneration if fertilization does not occur. If a woman is not pregnant, her menstrual cycle will occur every month. Generally, a normal woman’s menstrual cycle is 28-35 days and the length of menstruation is between 3-7 days. Menstrual cycle in women is said to be abnormal if the menstrual cycle is less than 21 days or more than 35 days.
The results of community service were obtained before the menstrual hygiene management education was carried out, most of the students had a poor category of 63.9%. This can cause unpreparedness in menarche causing fear and anxiety. In addition, there is a lack of knowledge about menstrual hygiene management due to infection with germs during menstruation, including Reproductive Tract Infections (ISR), Bacterial Vaginosis (BV) infections, and Urinary Tract Infections (UTI). To prevent problems in the reproductive organs, it is necessary to pay attention to menstrual hygiene. Women showed results that unhygienic menstrual management practices could cause Reproductive Tract Infection (RTI), including: Bacterial Vaginosis (41%), Candidiasis (34%), and Trichomonas Vaginalis (5.6%).

Young women have knowledge gaps and misconceptions about menstruation. However, the sources of information they receive are not always appropriate or inadequate and only a few adolescents have access to additional information from sources such as the mass media and the internet. The results of community service were obtained. Most of the students had good knowledge after 66.7% of menstrual hygiene management education was carried out.

Knowledge that is considered good will affect attitudes to forms of behavior to try to maintain genital hygiene. Behavior has an understanding, which is a response to perform a certain action. Behavior is structured into three aspects, including cognitive or knowledge aspects, affective or attitude aspects, and conative aspects.

Behavioral determinants are internal and external factors. Internal factors include knowledge, individual intelligence level, perception, one’s emotional pressure, and motivation to achieve certain desires. Meanwhile, external factors include the environment that surrounds us, including the physical and non-physical environment such as local air temperature, the current climate, socio-economic conditions and conditions of the community, and culture.

4. Conclusion

Menstrual hygiene management educational activity attended by all 6th grade students and their homeroom teachers (100%). The results of the activity showed that there was an increase in knowledge about menstrual hygiene management after education, from 13.9% of students who had good knowledge, to 83.3%. While students who have good knowledge 22.2% to 16.7% and from 63.9% with less knowledge to no students who have less knowledge after education on menstrual hygiene management.

Acknowledgment

The service team would like to thank all those who helped during the activities of the Principal of SDIT Nur Hidayah, Class 6 Guardians and all 6th grade students of SDIT Nur Hidayah Surakarta. The Service Team also expresses gratitude to the leadership of ITS PKU Muhammadiyah Surakarta and the Head of ITS LPPM PKU Muhammadiyah Surakarta who have facilitated and supported this community service activity.

Author Contribution

All authors contributed equally to the main contributor to this paper. All authors have read and agreed to the published version of the manuscript.

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Conflict of Interest

The authors declare no conflict of interest.

References


