

THE EFFECTIVENESS OF USE OF CLOTH PACKAGES IN EFFORT TO CONSERVE THE ENVIRONMENT (CASE STUDY OF HARAPAN ISLAMIC BOARDING SCHOOL, AR-RISALAH BANTUL)

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Abstract - Nowadays, the discourse on environmental conservation is hot to be studied amidst the increasing production of waste every year. One of the biggest contributors to waste is sanitary napkins. As for one element of society that has the potential to produce large-scale sanitary napkin waste is the Islamic boarding school environment. Responding to the facts above, there is a need for an effort to reduce waste production by adhering to the 3R principle (Reduce, Recycle, Reuse). One of the ways taken to reduce sanitary napkin waste is the use of cloth sanitary napkins and educating them to female students in order to reduce the potential use of single-use sanitary napkins for a more sustainable environment. At least there are several questions that must be answered in this study: What is the process of making cloth pads? how effective is the use of cloth sanitary napkins? and how to evaluate cloth sanitary napkins for further development?

Keywords: sanitary napkins, cloth pads, garbage, environment

1. INTRODUCTION

Nowadays, the discourse on environmental preservation is hot to be studied amidst the increasing production of waste every year. Based on data from the official website of the Indonesian government, the Ministry of Environment and Forestry (KLHK) noted that in 2020 the total national waste production reached 67.8 million tons. If it is related to Indonesia's population of around 270 million people, 185,753 tons of waste are generated every day. If it is divided equally among the entire population of Indonesia, each resident produces 0.68 kilograms of waste. This is a problem that requires serious handling and cooperation from various parties, both the government and the community.¹

One of the biggest contributors to waste is sanitary napkins. Every month, women experience menstruation and use practical disposable sanitary napkins. Based on data from Biyung Indonesia, in one menstrual period, women need 21 sanitary napkins with the calculation of one period being 7 days and in a day using 3 sanitary napkins. If it is calculated with the number of fertile women in Indonesia, which is around 70 million, there will be 1.4 billion waste every menstrual period.²

Then, the community element that has the potential to produce large-scale sanitary napkin waste is the Islamic boarding school environment.³ Based on the results of interviews, Pondok Pesantren Harapan Ar-Risalah Bantul has a total of about 300 students with a total of 200 female students.⁴ If all female students are assumed to have all menstruated, then there will be this number which is a big potential. If sanitary napkin waste is not managed properly and correctly every period, it will become a serious problem.

In response to the above facts, there is a need for an effort to reduce waste production by adhering to the 3R principle (Reduce, Recycle, Reuse). One of the ways taken to reduce sanitary napkin waste is the use of cloth sanitary napkins and educating them to female students in order to reduce the potential use of single-use sanitary napkins for a more sustainable environment.

Literature that examines cloth sanitary napkins can be said to be very minimal. As far as the search goes, the authors classify studies into 3 focuses, including: health, environment and education. First, health. A study with a health focus was conducted by Nur Asnah Sitohang on "Health Education About

Menstrual Health Management on Knowledge and Attitudes of Adolescents at Amal Saleh Private Madrasah Tsanawiyah". Based on the results of his research from 36 student respondents, students have sufficient knowledge about menstrual health management. The results of the respondents' knowledge obtained from: 1) the cleanliness of the female part during menstruation from the mother 38.5%, sanitary napkins from television advertisements 25%, menstruation from the mother 45.5%, the brand of sanitary napkins used now 36.5%, and the type of sanitary napkins used is a modern from the mother of 65.9%. Meanwhile, respondents' knowledge about cloth sanitary napkins is still said to be minimal. This is based on the level of education of those who are still in junior high school who have not studied the topic in school.⁵

Then, a study with an environmental focus was conducted by Ardiyati on "Social Campaign Use of Environmentally Friendly Sanitary Pads". In his study, he emphasized more on public awareness through ecoliteracy about cloth sanitary

napkins. They made an offer to use cloth sanitary napkins by looking at the amount of waste sanitary napkins that were not managed properly and exacerbated environmental pollution. In addition, there are still many sanitary napkins that contain chemicals that are harmful to health, which strengthens this offer. As a result, people are interested in using cloth sanitary napkins, however, they have not been able to provide a stimulant for the community to produce their own cloth sanitary napkins. So that continuous assistance is needed to keep this program running.⁶

In line with Muhammad Habibie who conducted research on "Women's Empowerment through Training on Making Environmentally Friendly Sanitary Pads at Disun Jambu." His research can be said to be the same as Ardiyati's, but has a difference in the use of raw materials for the cloth sanitary napkins. Habibie chose to use clothes that were no longer used, used cloth, coats or raincoats.

Although it has the potential to be developed, the selection of raw materials needs to be considered from the health aspect. Like the research conducted by Eka Mei Susanti on "The Difference in the Use of Pads and Panty Liners of Ordinary Types, Herbs, and Cloths with the Incidence of Leucorrhoea". In his research, although there was no effect from the use of sanitary napkins and pantyliners⁷ against the occurrence of vaginal discharge, but the need for hygienic hygiene to reduce the risk of getting vaginal discharge such as rinsing the vagina thoroughly, using underwear that easily absorbs sweat and of course this applies to materials for making sanitary napkins.

The study focused on environmental education was conducted by Istiqomah Shariati Zamani on "Ethical and Environmentally Friendly Sanitary Napkins". The study emphasizes the process of designing cloth sanitary napkins to evaluation. In the manufacture of cloth sanitary napkins are made in two forms, namely wallet designs and long designs. The manufacture of these sanitary napkins refers to two aspects, namely environmentally friendly and ethical. Environmentally friendly here means that the sanitary napkins used do not pollute the environment. If disposable sanitary napkins are usually thrown away, these cloth sanitary napkins can be washed for reuse. While what is meant by ethics is not to be thrown away carelessly. The disposal of sanitary napkins has not been managed properly, so ethically it is very disturbing to feel when placing privacy matters in any place, well known to others. So with this cloth pad to reduce this and use it more privacy and ethically.⁸

Based on some of the studies above, studies on cloth sanitary napkins in general still focus on environmental, health and education aspects. The author sees a void about field testing or the effectiveness of using cloth sanitary napkins as a substitute for modern sanitary napkins. This study is needed as an evaluation or to what extent cloth sanitary napkins can replace modern sanitary napkins. It is hoped that with this study the production of cloth sanitary napkins is better and more competitive. At least there are several questions that must be answered in this study: how is the process of making cloth sanitary napkins? How effective is the use of cloth sanitary napkins? and how to evaluate cloth sanitary napkins for further development?

2. METHOD

The method used in this study is a quantitative method. Quantitative method is one type of scientific research by collecting data by means of interviews, observations and combinations in the form of numbers and can be measured in certain units.⁹The data collection technique in this research is the triangulation method (combined). Interviews were conducted with the owner of the boarding house and female students, direct observation by means of the practice of making cloth sanitary napkins and distributed to respondents for use. After that, the trial respondents used cloth sanitary napkins and were given a questionnaire to determine the effectiveness of using cloth sanitary napkins.

The targets to be achieved in this research are categorized into 3 aspects, namely, knowledge, comfort, and security. First, knowledge. The benchmark of this knowledge includes knowledge of cloth sanitary napkins, benefits, effectiveness, uses etc. Second, convenience. Benchmarks of comfort include size, thickness and width, absorbency, and material quality. Third, health. Health benchmarks include symptoms caused, conditions causing symptoms, usefulness to avoid symptoms.

3. RESULT AND DISCUSSION

A. Cloth Sanitary Making Process

In the process of making cloth pads, there are several materials needed, including:¹⁰

- 1) Combad cotton fabric or t-shirt fabric
- 2) Waterproff cloth (0.25 parachute cloth)
- 3) Colored insert cloth (used to collect menstrual blood)
- 4) Rubber adhesive
- 5) Sewing tools (includes: needle, thread, scissors, etc.)
- 6) Button

After all the materials are available, the next is the process of making cloth sanitary napkins:¹¹

- 1) Prepare and cut cotton fabric and parachute cloth with a size of approximately 30 cm x 37 cm
- 2) Cut the two fabrics with the following pattern:
- 3) Sew and tie the parachute fabric together, and leave a seam at the end of the fabric for turning over
- 4) Insert the rubber adhesive between the two ends of the cloth bandage 5. Glue the buttons which will later function as underwear to be worn

As for how to use cloth sanitary napkins, including:¹²

- 1) Unbutton the PeKa (cloth dressing), then open the cloth bandage with the side of the insert (putty cloth) facing up.
- 2) Glue the side of the insert cloth (putty cloth) on the underwear. 3. Bring the two wings of the cloth pad toward the outside of the panties, then snap the buttons back on. Remember, make sure the studs are properly attached so they don't pierce through.

After the process of making cloth sanitary napkins, we conducted research on 10 women to find out how to measure their knowledge about cloth sanitary napkins, the results are as follows:

Table 1. Knowledge of PeKa

No	Criteria	Agree	Disagree
1	I know about PeKa (cloth sanitary napkins)	10	0
2	I know PeKa (cloth sanitary napkins) but I don't use them	7	3
3	I still use disposable sanitary napkins when I'm menstruating	7	3
4	I use PeKa because I see its usefulness	10	0
5	I don't use PeKa because of the hassle of re washing	7	3
6	I use PeKa but not regularly every time I menstruate (alternatingly, it can be PeKa and it can also be disposable sanitary napkins)	8	2
7	I prefer disposable pads	7	3
8	I prefer PeKa (Cloth Sanitary)	3	7

Next, we re-tested 7 people who were still using disposable sanitary napkins to see what kind of usefulness they meant. The results are as follows:

Table 2. Trial aspects of the usefulness of cloth sanitary napkins

No	Criteria	Agree	Do not agree	Disagree
1	I don't wear cloth pads because in terms of thickness it really interferes with activities	0	4	3
2	I don't wear cloth pads because from the side of the width it really interferes with my activities	0	3	4
3	I don't use cloth pads because from the side of the insert cloth pads (putty cloth) which are easy to shift	4	1	2
4	I don't wear cloth pads because cloth pads can't hold menstrual blood so it doesn't leak	0	6	1
5	I don't use cloth pads because the cloth pads are difficult to wash again (there is still residual blood)	5	1	1
6	I don't wear cloth pads because the cloth pads are not soft and comfortable	0	7	0
7	I don't wear cloth pads because it's hard to absorb menstrual blood	0	6	1

8	I don't use cloth sanitary napkins because cloth sanitary napkins, especially inserts, are difficult to obtain and difficult to dry	2	4	1
9	I don't use cloth sanitary napkins because the ingredients in making cloth sanitary napkins are hard to find around or in fabric stores in general	0	7	0
10	I don't use cloth sanitary napkins because cloth sanitary napkins are difficult to make at home	5	1	1

In addition, we conducted research on the comparison of cloth sanitary napkins with disposable sanitary napkins in terms of comfort in activities, the results are as follows:

Table 3. Comparison of aspects of comfort in activities

No	Criteria	Cloth Sanitary (Sensitive)	Disposable Pads	Not both
1	I use it because it doesn't bother me when I'm active	6	2	2
2	I use it because it's easy to use	4	6	0
3	I wear it because I see its softness and high absorption	8	0	2
4	I wear it because it's not thick and not wide	5	5	0
5	I wear it because I don't feel like wearing sanitary napkins during my period	4	4	2
6	I use it because it's easy to wash	3	6	1

B. Result

Based on the knowledge test of cloth sanitary napkins in table 1, we can conclude that most women already know about cloth sanitary napkins and their benefits, as shown in numbers 1 and 4. Unfortunately, number 2 states that 7 out of 10 people still use sanitary napkins once. use instead of PeKa (cloth sanitary napkins). Likewise, we can see in number 5. That they do not want to use cloth

sanitary napkins because one of the reasons is the hassle of re-washing the cloth sanitary napkins. This is what prompted the writer to find out more about what these 7 women really felt, why their considerations were still using disposable sanitary napkins instead of cloth sanitary napkins. Because if you look at number 4,

Furthermore, based on table 2 regarding the usefulness of cloth sanitary napkins, we can conclude that even though they already know the beneficial side

for themselves, they still use disposable sanitary napkins, we can see this in number 4 where 6 out of 7 people do not agree with a statement that cloth sanitary napkins are not able to accommodate menstrual blood, even though they themselves agree that cloth sanitary napkins are able to accommodate their blood during menstruation. Then, if we look at the comfort side in using cloth sanitary napkins in daily activities, then cloth sanitary napkins have no problem in terms of thickness and width and it is also recognized by them that cloth sanitary napkins are comfortable and soft when worn and can be relied on to accommodate menstrual blood (have high absorption), this can be seen in points 1, 2, 6 and 7.

Then what is the reason they still use disposable sanitary napkins? We can see in table 2 about the comparison of aspects of the usefulness of single-use sanitary napkins, that in points 3 and 5. That when they use cloth sanitary napkins, the insert cloth (putty cloth) used is sometimes easy to shift which causes menstrual blood to penetrate everywhere. or that causes the need to re-wash the PeKa (cloth dressing) or insert cloth (putty cloth). Based on this, 5 out of 7 women who use disposable sanitary napkins have difficulty in re-washing the PeKa (Fabric Sanitizer), because even though they are washed, there will still be blood spots attached. In contrast to disposable sanitary napkins, when they are full/time to throw away, it will shorten their time. We can also see their reason for this in point number 10, that they do not use cloth sanitary napkins because cloth sanitary napkins are difficult to make at home. The difficulty is because PeKa itself has to use a sewing machine to strengthen the sides.

From table 3 on the comparison of comfort aspects in activities between ordinary sanitary napkins, it can be concluded that in terms of health, PeKa (cloth sanitary napkins) are indeed superior to them. The use of PeKa (cloth pads) can overcome the problem of avoiding rashes around the groin and also avoid unpleasant odors in the female area and reduce vaginal discharge after menstruation or before menstruation occurs, which is usually experienced by women. But unfortunately, on point number 4. People prefer disposable pads to keep their feminine area moist. Then

if we look at the comfort side when doing activities, then the PeKa (Fabric Sanitary) has no problem in terms of thickness or width in its use. It's just that cloth sanitary napkins will look a little complicated in terms of washing. It is proven in point 6 that people prefer disposable sanitary napkins in terms of washing them.

4. CONCLUSION

Based on the research that has been done, it can be seen that in general, female students already know about cloth sanitary napkins. If you still don't know about cloth sanitary napkins, this becomes a natural thing considering the age of those who are just entering junior high school and the topic of discussion is not found in schools or cottages. Therefore the need for cooperation from various parties to educate cloth sanitary napkins in order to reduce the potential for high and controlled production of sanitary napkins.

Talking about the effectiveness of cloth sanitary napkins as a substitute for disposable sanitary napkins, there are still complaints from female students. Santriawati in general still choose disposable sanitary napkins to use even though

they already know the benefits of cloth sanitary napkins. This is based on the quality of cloth sanitary napkins that are not equivalent to ordinary sanitary napkins, both in terms of size, absorption, durability, and comfort when used in activities. So that there is a need for further development in the production of cloth sanitary napkins to be better and more competitive with ordinary sanitary napkins. This can be measured in terms of size, absorption, durability, and comfort when used in activities.

Further things that can be researched to be developed is regarding the quality of cloth sanitary napkins. Because based on the results of research that has been done, most of the female students complain because the quality is still not equivalent to disposable sanitary napkins. If further development of cloth sanitary napkins is successful, it has the potential to replace single-use sanitary napkins. As a result, the production of sanitary napkins can be controlled.

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