



IMPLEMENTATION OF THE SAHABAT REMAJA APPLICATION TO IMPROVE ADOLESCENT GIRLS' KNOWLEDGE AND ATTITUDES ABOUT PREMENSTRUAL SYNDROME IN KIARACONDONG BANDUNG.

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Abstract Background: One of the reproductive health issues among adolescents is the lack of knowledge, attitudes, and behaviors regarding premenstrual syndrome (PMS), including the concepts of menstruation, PMS, factors influencing PMS, and treatments to reduce PMS symptoms. Therefore, health education innovations are needed, including through Android-based applications, which are innovative media.

Objectives: The goal of this Community Service is to implement health education using the Sahabat Remaja application to improve the knowledge and attitudes of adolescent girls. The solution offered in this community service activity is a community service program.

Method: The activity was a community service that involved the transfer of science and technology through the implementation of the Sahabat Remaja application, an Android-based application on premenstrual syndrome. The activity is carried out by establishing facilitators or youth ambassadors and mentoring the facilitators while providing health education to other adolescents. The community service location is in the Kiaracondong area of Bandung. The activity runs from April to December 2025. The number of partners consists of 15 adolescent girls in the Kiaracondong area who are being trained to become youth ambassadors.

Results: There was an increase in knowledge before intervention (mean: 62) to after intervention (mean: 78), and there was an increase in the attitudes of adolescents after community service activities were carried out. The Score mean before intervention was 69,4 and after intervention was 80.

Conclusion: Implementation of the sahabat remaja application can improve adolescent girls' knowledge and attitudes about premenstrual syndrome in Kiaracondong, Bandung.

Keywords: application, sahabat remaja, adolescent, knowledge, attitudes.

BACKGROUND

One of the reproductive health problems among adolescent girls is Premenstrual Syndrome (PMS). PMS has a relatively high incidence, affecting approximately 95% of women. A study of adolescent girls in Bandung showed a relatively high incidence of PMS, at 54.2% (1). A preliminary study of 100 adolescent girls in Bandung found that 60% experienced PMS symptoms.

PMS can affect adolescents' health both physically and psychologically, as symptoms vary from mild to severe. These physical and psychological symptoms are recurrent, typically occurring 7-14 days before the menstrual cycle and disrupting several aspects of a woman's life. The study showed that the menstrual cycle affects the emotional and physical processes of all women (2,3). As many as 5% of women experience severe symptoms, which can affect their activities (4-6). PMS symptoms in adolescents can impact their school performance. PMS can affect school activities in adolescents, such as decreased concentration in learning, disrupted communication with friends, and possibly decreased learning productivity and increased absenteeism.

Many factors influence PMS symptoms, such as personality, anxiety, obesity, physical activity and nutritional intake. The prevalence of PMS is high among adolescents with introverted personalities, high anxiety, being overweight, a lack of exercise, high sugar consumption, and insufficient intake of calcium, potassium, and vitamins B6 (7-9). Therefore, knowledge, attitudes, and behaviors are needed to support adolescents in managing PMS symptoms. Adolescents' knowledge, attitudes, and skills for reducing PMS symptoms are still lacking. Research has shown a significant relationship between adolescent girls' knowledge and behavior in managing PMS symptoms (10). Other research has shown that 81% of adolescents have insufficient knowledge about PMS, and 49.4% do not seek treatment for their PMS symptoms (11).

To improve adolescents' knowledge, attitudes, and skills about PMS, it is necessary to develop innovative health education media using multimedia technology. One such multimedia tool is an Android application, which is implemented on smartphones running the Android operating system. Currently, Android users in Indonesia rank fifth among the world's smartphone users. With current technological developments, Android can be used as a medium for educational health information, especially for adolescents (12-15). According to Mulyati's 2023 research, there was an impact of health education using the "Sahabat remaja" application on adolescent girls' knowledge about PMS.

Based on preliminary studies, adolescents in the Kiara Condong area experience problems, including premenstrual syndrome. Kiara Condong is a densely populated area with a population of 131,660. Most residents are self-employed, and many migrants have settled in Kiara Condong. Kiara Condong is a densely populated district and an economic center in Bandung City. This area faces health problems, including adolescent reproductive health. The problem in Kiaracondong was that Health education on how to manage premenstrual syndrome had not been conducted for adolescents. Adolescents' knowledge about PMS is still lacking. Health education through digital media has not been implemented in adolescent integrated health (Posyandu) due to the absence of the formation of adolescent facilitators on PMS.

Based on this problem, the author has a community service with the implementation of the "Sahabat Remaja" application to improve adolescent girls' knowledge and attitudes about Premenstrual Syndrome.

METHODS

The activity was a community service that involved the transfer of science and technology through the implementation of the Sahabat Remaja application, an Android-

based application on premenstrual syndrome. The activity is carried out by establishing facilitators or youth ambassadors and mentoring the facilitators while providing health education to other adolescents. The community service location is in the Kiaracondong area of Bandung. The activity from April to December 2025. The number of partners consists of 15 adolescent girls in the Kiaracondong area who are being trained to become youth ambassadors.

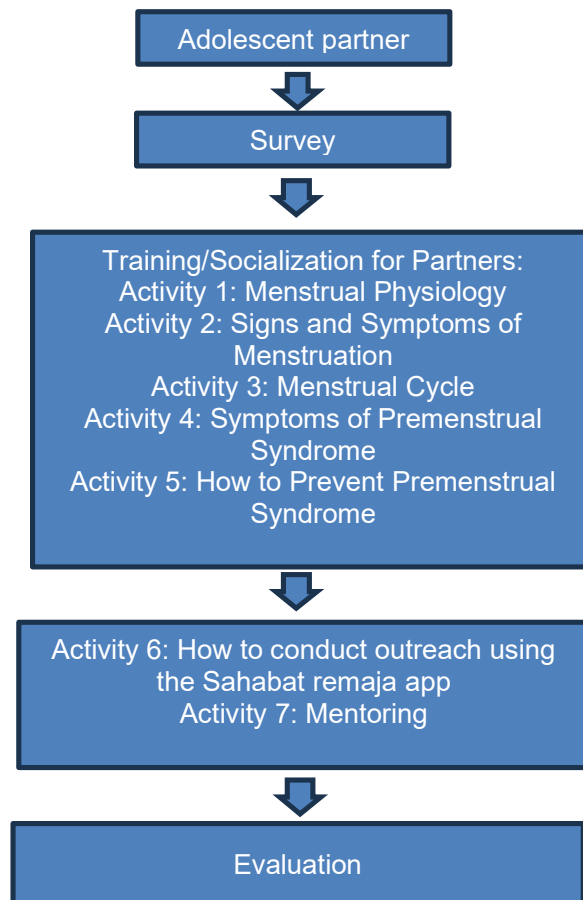
The Activity Program consists of:

- a. Preparation (material preparation includes: curriculum development, media preparation for the "Sahabat remaja" application)
- b. Implementation (Field surveys, coordination with the head of the Community Health Center and the community, Socialization of the Community Service Program, Socialization or training for youth ambassadors, providing mentoring for partners)
- c. Evaluation (Monitoring and evaluation of partners)

Program Material consists of:

- a. Menstrual Physiology
- b. Signs and symptoms of menstruation
- c. Menstrual cycle
- d. Symptoms of premenstrual syndrome
- e. How to prevent premenstrual syndrome
- f. How to conduct outreach using the "Sahabat remaja" application

COMMUNITY PARTNERSHIP PROGRAM DESIGN CHART



RESULT AND DISCUSSION

The implementation of this Community Service Program had the best results for partners through community service programs in the form of services. Based on the problems to be solved, the science and technology-based targets achieved are:

1. Formation of youth ambassadors for premenstrual syndrome

The implementation of this Community Service Program involved the formation of youth ambassadors for premenstrual syndrome.

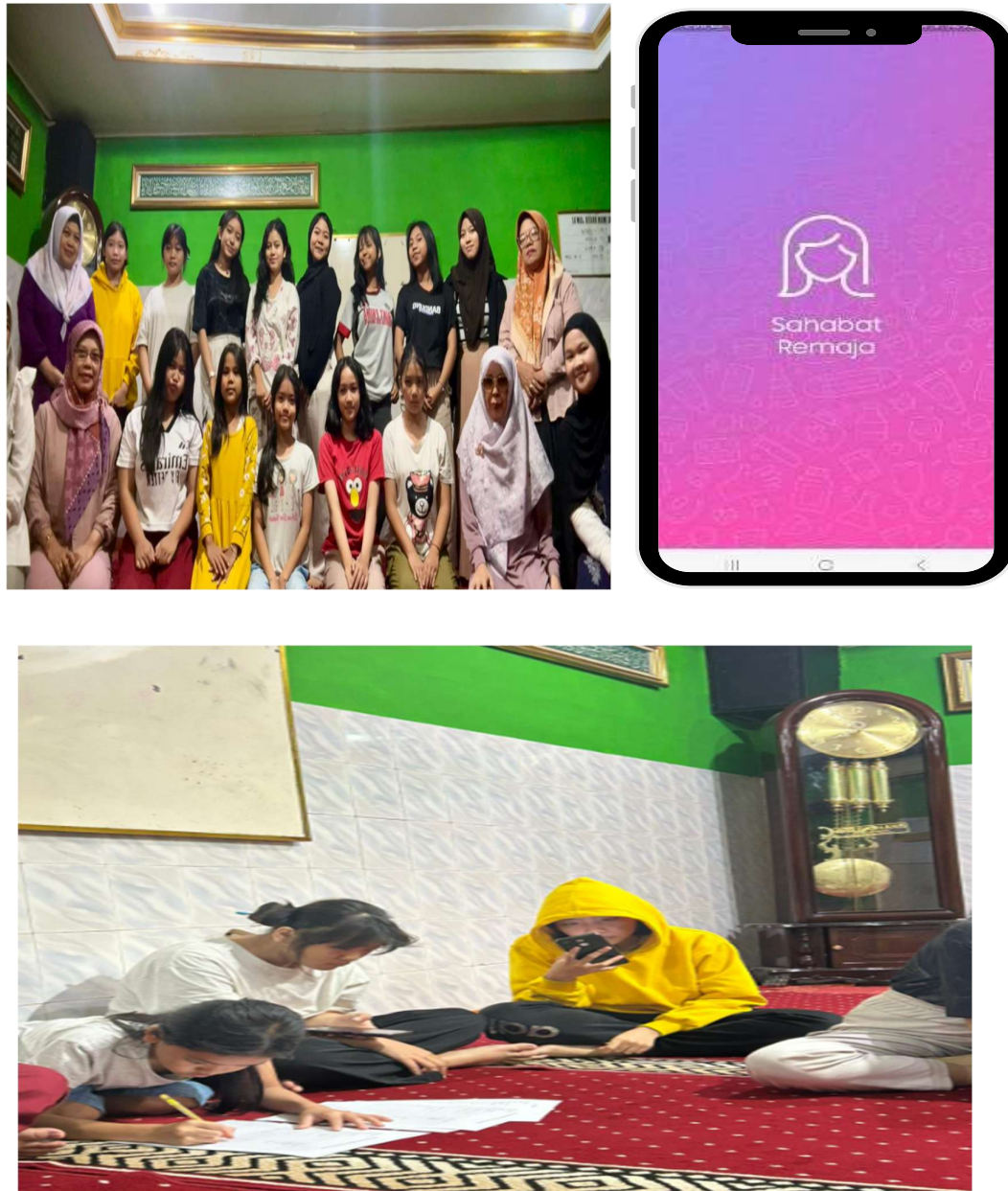


Figure 1. Formation of youth ambassadors for premenstrual syndrome

2. Increased knowledge and attitudes among partners regarding Premenstrual syndrome

There was an increase in knowledge before intervention (mean: 62) to after intervention (mean: 78), and there was an increase attitudes of adolescents after community service activities were carried out. The Score mean before the intervention was 69,4, and after the intervention was 80. Many factors influence PMS symptoms, such as personality, anxiety, obesity, physical activity, and nutritional intake. The prevalence of PMS is high among adolescents with introverted personalities, high anxiety, overweight, lack of exercise, high sugar consumption, and insufficient intake of calcium, potassium, and vitamins B6 (7-9). Therefore, knowledge, attitudes, and behaviors are needed to support adolescents in managing PMS symptoms. Adolescents' knowledge, attitudes, and skills for reducing PMS symptoms are still lacking. Research has shown a significant relationship between adolescent girls' knowledge and behavior in managing PMS symptoms (10). Other research has shown that 81% of adolescents have insufficient knowledge about PMS, and 49.4% do not seek treatment for their PMS symptoms (11).

CONCLUSION

The implementation of the *sahabat remaja* application can improve adolescent girls' knowledge and attitudes about premenstrual syndrome in Kiaracondong, Bandung.

COMPETING INTERESTS

The authors declare that there are no conflicts of interest related to this study

AUTHOR'S CONTRIBUTION

Sri Mulyati conceived of the presented idea, data analysis, and writing manuscript; Yuni Nurchasanah was in charge of data collection and analysis; and drafting the manuscript. All authors contributed to the final manuscript.

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