

Article

“Ready for adolescence”: A school-based reproductive health education programme on menarche, wet dreams, and puberty for elementary school students

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Abstract

Background: Elementary school students entering early adolescence experience physical and psychological changes associated with puberty. However, limited knowledge of menarche, wet dreams, and reproductive health may lead to misconceptions, anxiety, and unhealthy practices, highlighting the need for age-appropriate health education.

Identification problems: : A preliminary assessment at SDN Gebang 5 Jember indicated that many upper-grade students had inadequate understanding of puberty-related changes and reproductive health, while access to structured educational programmes on these topics was limited.

Methods: This community service programme involved 60 students from grades IV, V, and VI at SDN Gebang 5 Jember. The programme consisted of a pre-assessment, interactive educational sessions, group discussions, puberty case simulations, question-and-answer activities, and a post-intervention evaluation. Programme outcomes were evaluated using a structured questionnaire to assess participants' knowledge of menarche, wet dreams, puberty-related changes, and reproductive health.

Results: The programme significantly improved participants' knowledge of puberty and reproductive health. The proportion of students with good knowledge increased from 20% before the intervention to 80% afterward. The average knowledge score increased from 62.5 to 88.3, while the percentage of correct responses improved from 51.0% to 96.5%, indicating greater readiness to understand and manage pubertal changes.

Conclusion: The community service programme effectively enhanced elementary school students' knowledge and preparedness for puberty through interactive reproductive health education. Similar school-based educational initiatives are recommended to strengthen adolescents' health literacy and promote healthy developmental behaviours from an early age.

Keywords: adolescence; community service; health education; reproductive health; school-based intervention

1. Introduction

The elementary school period represents an early transition into adolescence, characterized by significant physical, psychological, and social changes (Kustin & Handayani, 2024b). At this stage, children begin to enter puberty, which is characterized by the development of secondary sexual characteristics, including menarche in girls and wet dreams in boys (Kustin & Handayani, 2025). However, these developmental changes frequently occur before children have access to sufficient and accurate information, which may result in confusion, anxiety, and misconceptions regarding reproductive health (L. Rahmawati et al., 2024). Limited knowledge about puberty remains a significant concern, despite the fact that menarche may occur as early as nine years of age and various signs of puberty often begin to emerge during the elementary school years (Kustin et al., 2024).

At the national level, numerous studies have indicated that the level of reproductive health knowledge among Indonesian adolescents is still inadequate (Kemenkes RI, 2024). Analysis of



the Indonesia Demographic and Health Survey (IDHS) data indicates persistent disparities and low levels of adolescents' knowledge regarding signs of puberty, reproductive health, HIV/AIDS, and other reproductive health risks. This condition suggests that information on reproductive health has not been evenly accessed or adequately received by Indonesian children and adolescents (Kementerian Kesehatan RI, 2023). This issue is also evident among elementary school-aged children. A study involving 221 elementary school students in Jakarta and its surrounding areas found that students' understanding of puberty remains low across several important aspects, including physical changes during puberty, menstruation, and reproductive changes in boys. The researchers concluded that elementary school children still require more comprehensive puberty education that is appropriate to their developmental stage (Nurfadhilah et al., 2022).

A lack of knowledge leads to children being unprepared to face the physical changes in their bodies (Natalie Pangajouw et al., 2023). Studies on readiness for menarche have found that many elementary school girls experience fear, embarrassment, confusion, and anxiety when their first menstruation occurs due to a lack of understanding of the physiological processes occurring in their bodies (Wijayanti et al., 2025). Low levels of knowledge have been shown to be associated with poor readiness for menarche. In addition, recent studies report that many elementary school girls still lack adequate knowledge and attitudes regarding menarche; therefore, educational interventions are needed before they enter puberty (Pitaloka et al., 2024).

Although various reproductive health education programs have been implemented, most are still focused on junior and senior high school adolescents (Mareti & Nurasa, 2022). The materials provided in reproductive health education are also more focused on menstruation in girls, while education about wet dreams in boys often receives less balanced attention. As a result, boys tend to obtain information from peers or digital media that is not always accurate. This gap is one of the factors contributing to children's limited understanding of the reproductive changes they will experience. A preliminary survey conducted at SDN Gebang 5 Jember showed similar findings. Among 10 interviewed students, 7 students (70%) did not have a correct understanding of menarche, wet dreams, or how to maintain reproductive health during puberty. Some students perceived menstruation as a frightening condition, while boys were not aware that wet dreams are a normal physiological process during puberty. These findings indicate a clear need for early reproductive health education before children experience these developmental changes.

Based on these conditions, a community service program is needed to provide comprehensive reproductive health education to elementary school students. The program entitled "Ready to Become a Teenager": Education on Menarche, Wet Dreams, and Reproductive Health for Elementary School Students was designed to improve students' knowledge and readiness in facing puberty through interactive, communicative, and age-appropriate educational methods. The novelty of this program lies in its educational approach, which does not only focus on menarche for girls but also integrates education on wet dreams for boys and basic reproductive health in a single package delivered to pre-adolescent students. This approach is expected to help students understand bodily changes positively, enhance their readiness for puberty, and promote better reproductive health behaviors from an early age.

2. Identification problem

Elementary school children begin to enter puberty, which is characterized by menarche in girls and wet dreams in boys; however, their knowledge of reproductive health remains limited. Various studies indicate that a lack of understanding of puberty causes children to feel fear, embarrassment, confusion, and unpreparedness in facing bodily changes. In addition, existing reproductive health education is still predominantly targeted at junior and senior high school students, meaning that informational needs during the pre-adolescent stage have not been optimally fulfilled. A preliminary survey conducted at SDN Gebang 5 Jember showed that 70% of students did not have a correct understanding of menarche, wet dreams, and how to maintain reproductive health during puberty. These findings highlight the need for comprehensive, age-appropriate reproductive health education delivered early to improve students' readiness in facing puberty. Factual and actual problems, issues, challenges or community needs. Describe the problems, issues or basic needs in society related to the activity target.

3. Implementation methodology

The community service program entitled "Ready to Become a Teenager": Education on Menarche, Wet Dreams, and Reproductive Health for Elementary School Students was conducted in

February 2026 at SDN Gebang 5 Jember, involving 60 upper-grade elementary school students in the pre-adolescent stage. The implementation method was designed to be participatory and interactive so that participants would not only receive information but also understand and prepare for the physical and psychological changes occurring during puberty.

The first stage involved preparation and coordination, including obtaining permission from the school, identifying participants' needs through discussions with teachers, developing educational media, and preparing learning materials covering menarche, wet dreams, physical and psychological changes during puberty, and reproductive health practices. The materials were developed using simple language appropriate to elementary school students' developmental level.

The second stage involved a pre-activity assessment to explore participants' prior knowledge through question cards and interactive games. At this stage, students were asked to identify various changes that may occur during adolescence. This activity aimed to assess baseline knowledge while creating an active and engaging learning environment.

The third stage was interactive education based on peer-group learning. Participants were divided into small groups, with boys and girls separated when discussing specific topics related to menarche and wet dreams. The education utilized visual presentations, booklets, discussion cards, and simple case studies commonly encountered in daily life. This method was chosen to encourage students to feel more comfortable asking questions and discussing sensitive reproductive health topics.

The fourth stage was the "Ready to Become a Teenager" activity, consisting of simulation and problem-solving based on scenarios. Each group was given case illustrations, such as experiences of first menstruation or first wet dreams, and asked to discuss appropriate responses as well as steps to maintain personal hygiene and reproductive health. The discussion results were presented and followed by feedback from the facilitators. This approach distinguished the program from conventional educational activities by emphasizing active learning through real-life simulation.

The fifth stage was an open consultation and question-and-answer session. Participants were given the opportunity to ask questions directly or through anonymous submission, allowing shy students to express concerns and receive answers. This session aimed to clarify myths and misconceptions commonly associated with puberty and reproductive health.

The final stage was evaluation and follow-up. Evaluation was conducted through participant reflection using a simple feedback form to assess understanding, impressions, and perceived benefits of the program. In addition, the educational booklet was provided to the school as a learning resource that could be reused by teachers and students. Through interactive education, peer-group discussions, case simulations, and open consultation, this program is expected to enhance students' readiness for puberty and foster positive reproductive health behaviors from an early age.

4. Results and Discussion

4.1 Implementation Results

The community service programme entitled "Ready for Adolescence": School-based reproductive health education on menarche, wet dreams, and puberty for elementary school students was conducted in February 2026 at SDN Gebang 5 Jember. The programme involved 60 students from Grades IV, V, and VI who were entering early adolescence.

The programme was implemented in five sequential stages: (1) baseline knowledge assessment through a pre-test, (2) delivery of educational materials on menarche, wet dreams, puberty, and reproductive health, (3) interactive group discussions and puberty case simulations, (4) question-and-answer sessions to reinforce understanding, and (5) post-intervention evaluation to assess programme outcomes.

Table 1 Characteristics of programme participants

Characteristics	Frequency (f)	Percentage (%)
Sex		
Male	28	46,7
Female	32	53,3
Class		
IV	18	30

V	21	35
VI	21	35
Total	60	100

The table shows the demographic characteristics of the respondents. In terms of sex, the participants were slightly dominated by females, accounting for 53.3% (n = 32), while males comprised 46.7% (n = 28), indicating a relatively balanced gender distribution among the 60 respondents. Regarding grade level, most participants were from Grade V and Grade VI, each representing 35% (n = 21), followed by Grade IV students at 30% (n = 18). This indicates that the majority of respondents were upper-grade elementary school students who are in the pre-adolescent stage and therefore increasingly likely to experience early signs of puberty and require appropriate reproductive health education.



Figure 1. Opening session and baseline knowledge assessment

The community service team conducted an introduction to the program and an initial assessment to determine students' level of understanding regarding menarche, wet dreams, and reproductive health.



Figure 2. Reproductive health education session

The speaker delivered the material using presentation media and educational booklets tailored to the characteristics of elementary school students.



Figure 3. Group discussion and puberty simulation

Participants engaged in group discussions and participated in puberty case simulations to enhance their understanding of menarche, wet dreams, and reproductive health in a more interactive and practical learning setting.



Figure 4. Interactive question-and-answer session

Participants actively asked questions regarding the physical and psychological changes that occur during puberty.



Figure 5. Closing session and group photo

Final documentation of the community service activity with students, teachers, and the implementation team.

4.2 Community Impact

The programme demonstrated a positive impact on participants' knowledge of puberty and reproductive health. Knowledge improvement was evaluated using pre- and post-intervention assessments.

Table 2 Participants' knowledge levels before and after the educational programme

Characteristics	Pre-test f (%)	Post-test f (%)
Good	12 (20.0)	48 (80.0)
Moderate	18 (30.0)	10 (16.7)
Poor	30 (50.0)	2 (3.30)

Table 2 presents the distribution of participants' knowledge levels before and after the educational intervention. Prior to the intervention, half of the students (50%, $n = 30$) were categorized as having poor knowledge, while 30% ($n = 18$) had moderate knowledge, and only 20% ($n = 12$) had good knowledge. After the educational program, a substantial improvement was observed, with the majority of students (80%, $n = 48$) falling into the good knowledge category. The proportion of students with moderate knowledge decreased to 16.7% ($n = 10$), while those with poor knowledge significantly declined to 3.3% ($n = 2$). These findings indicate a marked improvement in students' understanding of menarche, wet dreams, puberty-related changes, and reproductive health following the intervention.

Table 3 Knowledge scores before and after the educational programme

Characteristics	Pre-test	Post-test
Minimum score	40	65
Maximum score	85	100
Mean score	62.5	88.3

Table 3 shows an improvement in participants' knowledge scores after the educational intervention. The minimum score increased from 40 before the intervention to 65 after the intervention, indicating that even students with the lowest initial understanding experienced better knowledge acquisition. The maximum score also increased from 85 to 100, showing that some participants achieved perfect understanding after the education program. In addition, the mean score rose from 62.5 to 88.3, reflecting a substantial overall improvement in students' knowledge regarding menarche, wet dreams, pubertal changes, and reproductive health. These results demonstrate that the educational intervention was effective in increasing both individual and overall knowledge levels among elementary school students.

Table 4 Distribution of correct responses before and after the educational programme

Characteristics	Pre-test	Post-test
Menarche is the first menstruation experienced by adolescent girls.	28 (46.7)	57 (95.0)
Menarche is a normal process that occurs during puberty.	31 (51.7)	58 (96.7)
Wet dreams are one of the signs of puberty in boys.	24 (40.0)	56 (93.3)
Wet dreams are not a disease or a medical disorder.	22 (36.7)	55 (91.7)
Puberty causes physical changes in both boys and girls.	35 (58.3)	59 (98.3)
Maintaining the cleanliness of reproductive organs is important during puberty.	39 (65.0)	60 (100)
Sanitary pads should be changed regularly during menstruation.	30 (50.0)	58 (96.7)
Adolescents need to maintain body hygiene after experiencing wet dreams.	26 (43.3)	57 (95.0)
Reproductive health information should be obtained from correct and reliable sources.	34 (56.7)	59 (98.3)
Physical changes during puberty are a normal developmental process.	37 (61.7)	60 (100)

Based on Table 4, all knowledge indicators showed an improvement after the educational intervention. Before the program, participants' understanding was relatively low, with an average correct response rate of 51.0%. After the intervention, the average correct response rate increased significantly to 96.5%. The greatest improvement was observed in the indicators related to wet dreams as a sign of puberty in boys and the understanding that wet dreams are a normal physiological process. These findings indicate that the educational program effectively improved students' understanding of menarche, wet dreams, pubertal changes, and the importance of maintaining reproductive health from an early age.

Table 5 Overall improvement in participants' knowledge

Category	Pre-test	Post-test
Total Correct Answers	306	579
Average percentage	51	96.5

Note: Maximum possible correct responses = 600 (10 questions × 60 participants).

Based on Table 5, the total number of correct answers in the pre-test was 306, which increased to 579 in the post-test. The mean number of correct answers also increased from 30.6 in the pre-test to 57.9 in the post-test. In addition, the average percentage of knowledge increased from 51% before the intervention to 96.5% after the intervention. These data indicate an improvement in participants' knowledge level from baseline to post-intervention, as shown by the increase in both the number and percentage of correct answers in the post-test compared to the pre-test.

4.3 Discussion and Practical Reflection

The community service programme successfully improved elementary school students' knowledge regarding puberty and reproductive health. Improvements were consistently observed across knowledge categories, average knowledge scores, and questionnaire indicators, demonstrating that school-based reproductive health education is an effective strategy to prepare children for the transition to adolescence. The majority of participants were students in Grades V and VI, representing the early adolescent stage during which physical and psychological changes begin to occur. According to Piaget's theory of cognitive development, children aged 10–12 years are transitioning from the concrete operational stage to the formal operational stage, enabling them to understand increasingly abstract concepts and relate new information to their daily experiences (Papalia, 2021). Consequently, puberty education delivered at this developmental stage is both appropriate and developmentally relevant.

The improvement in participants' knowledge following the intervention can be explained by educational and behavioural learning theories. According to Bloom's taxonomy, knowledge develops through receiving, understanding, and recalling information, while interactive educational approaches facilitate deeper learning than passive information delivery (Anderson, 2020). Likewise, the Health Belief Model suggests that individuals are more likely to adopt healthy behaviours when they understand potential health issues, recognise the benefits of preventive actions, and receive appropriate cues to action (Rosenstock et al., 1988). In this programme, health education, group discussions, case simulations, and interactive question-and-answer sessions served as effective cues to action that enhanced students' understanding of pubertal changes and reproductive health (Kustin & Handayani, 2024a).

The findings are consistent with previous studies demonstrating that school-based reproductive health education significantly improves knowledge and health literacy among pre-adolescent students (Kustin et al., 2024; Maulana & Kustin, 2025; Sunarsih et al., 2020). The substantial increase in the average knowledge score after the intervention indicates that participants not only

acquired new information but also strengthened their understanding of puberty-related concepts. This improvement may also be explained by Social Learning Theory, which emphasises that learning occurs through observation, social interaction, and meaningful experiences. Interactive learning activities, particularly group discussions and puberty simulations, encouraged active participation and enhanced information retention among students (Bandura, 2022).

The programme also addressed important knowledge gaps regarding male and female puberty. Before the intervention, students demonstrated limited understanding of wet dreams and menarche, reflecting the limited availability of accurate reproductive health information for elementary school children. Similar situations have been reported internationally, where discussions about puberty remain sensitive within both families and schools, resulting in misconceptions and inadequate preparedness among children (UNFPA, 2023). Following the intervention, participants demonstrated a much better understanding that wet dreams and menarche are normal physiological processes associated with puberty. These findings are consistent with previous studies reporting that puberty education improves understanding of secondary sexual characteristics, reduces misconceptions, and enhances readiness to experience puberty (Kustin et al., 2023; Kustin et al., 2024; Lestari et al., 2025; Pitaloka et al., 2024; S. Rahmawati et al., 2023; Steinberg, 2024; WHO, 2023).

From a practical perspective, several factors contributed to the success of the programme. Educational materials were presented using language appropriate to the participants' developmental level, while interactive discussions and puberty case simulations encouraged students to ask questions and openly discuss topics that are often considered sensitive. Collaboration with teachers also created a supportive learning environment, enabling participants to engage actively throughout the educational sessions. These findings support the Health Promotion Model, which emphasises that increased knowledge is an important predisposing factor for developing healthy behaviours (Pender, 2023). According to health communication theory, educational effectiveness is strongly influenced by the suitability of the content, communication methods, educational media, and the characteristics of the target audience (Glanz, 2024).

Despite the positive outcomes, several implementation challenges were identified. At the beginning of the programme, some students were reluctant to discuss reproductive health because they considered the topic embarrassing or unfamiliar. In addition, the limited duration of the activity restricted opportunities for more extensive practical exercises and individual counselling. These experiences indicate that future programmes should allocate sufficient time for interactive learning and involve parents and teachers more actively to reinforce reproductive health education beyond the classroom.

Overall, this community service programme demonstrates that school-based reproductive health education is a feasible and effective approach to improving elementary school students' knowledge and preparedness for puberty. Sustained collaboration between schools, families, and healthcare professionals is recommended to ensure that puberty education becomes an integral component of school health promotion programmes and contributes to the development of healthy, confident, and responsible adolescents.

5. Conclusion

The "Ready to Become a Teenager" community service programme successfully improved elementary school students' knowledge and preparedness regarding puberty and reproductive health through interactive and age-appropriate educational activities. The programme enhanced students' understanding of menarche, wet dreams, pubertal changes, and healthy reproductive practices, demonstrating the effectiveness of school-based reproductive health education in preparing children for the transition to adolescence.

This programme also highlights the importance of integrating reproductive health education into school health promotion initiatives through collaboration among schools, families, and healthcare professionals. Sustained educational activities and follow-up programmes are recommended to strengthen adolescents' health literacy and promote healthy behaviours during the transition to adolescence.

Recommendations or sustainability plan

To sustain the impact of this community service programme, schools are encouraged to integrate puberty and reproductive health education into regular school health promotion activities, with

implementation at least once each semester. The School Health Unit (UKS) should be strengthened as a platform for continuous health education through collaboration with healthcare professionals. Schools are also encouraged to provide age-appropriate educational media, such as posters, booklets, and leaflets, to reinforce students' understanding of reproductive health. In addition, establishing accessible school-based counselling services can support students who require further information or guidance during puberty. Active parental involvement through educational meetings or parenting programmes is also recommended to ensure consistent support for students' reproductive health education both at school and at home, thereby promoting sustainable adolescent health literacy.

References

- Anderson, L. W. , K. D. R. , et al. (2020). *A Taxonomy for Learning, Teaching, and Assessing*. Pearson.
- Bandura, A. (2022). Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*.
- Glanz, K. , R. B. K. , & V. K. (2024). *Health Behavior: Theory, Research and Practice* (6th ed.). Jossey-Bass.
- Kemenkes RI. (2024). *Situasi Kesehatan Reproduksi Remaja*. Kementerian Kesehatan RI.
- Kementerian Kesehatan RI. (2023). *Survei Kesehatan Indonesia (SKI) 2023*.
- Kustin, & Handayani, Y. (2024a). Health Belief Model Sebagai Upaya Pencegahan Perilaku Seks Bebas pada Remaja (Vol. 5, Number 3).
- Kustin, K., & Handayani, Y. (2024b). Peer Counseling on Adolescent Health Reproductive Skills. *Jurnal Kesehatan Komunitas (Journal of Community Health)*, 10(1), 96–103. <https://doi.org/10.25311/keskom.vol10.iss1.1647>
- Kustin, K., & Handayani, Y. (2025). Pendampingan Kader Kesehatan Remaja Dengan Modul Dalam Peningkatan Perilaku Kesehatan Reproduksi Remaja. *INDRA: Jurnal Pengabdian Kepada Masyarakat*, 6(1), 20–26. <https://doi.org/10.29303/indra.v6i1.552>
- Kustin, K., Handayani, Y., Nuris Yuhbaba, Z., & Fitriani Nafista, U. (2024). Peningkatan Literasi Menghadapi Menarche Pada Santriwati. *Sadewa Jurnal Pengabdian Masyarakat*, 2(1), 1–6. <https://doi.org/https://doi.org/10.36858/js.v2i1.701>
- Kustin, K., Yuhbaba, Z. N., & Isnawati, N. (2023). Pemberdayaan kelompok remaja berbasis budaya santri dalam optimalisasi peningkatan keterampilan kesehatan reproduksi remaja. *INDRA: Jurnal Pengabdian Kepada Masyarakat*, 4(2), 80–84. <https://doi.org/10.29303/indra.v4i2.253>
- Lestari, D. I., Ningrum, E. W., & Safitri, M. (2025). The Influence of Social Media Exposure on Adolescent Reproductive Health Practices: Evidence from Indonesian Vocational Students. In *CoMPHI Journal: Community Medicine and Public Health of Indonesia Journal* (Vol. 6, Number 1). <https://doi.org/https://doi.org/10.37148/comphijournal.v6i1.287>
- Mareti, S., & Nurasa, I. (2022). Tingkat Pengetahuan Remaja Tentang Kesehatan Reproduksi Di Kota Pangkalpinang. <https://doi.org/https://doi.org/10.32539/jks.v9i2.154>
- Maulana, G., & Kustin. (2025). The Effect of Health Education Using Flash Card Media on Adolescent Reproductive Health Behavior. *Jurnal Kesehatan Komunitas Indonesia*, 5(1), 1–14. <https://doi.org/10.58545/jkki.v5i1.489>
- Natalie Pangajouw, C., Oroh, W., Renteng, S., Program Studi Ilmu Keperawatan Fakultas Kedokteran, M., Sam Ratulangi, U., & Studi Ilmu Keperawatan Fakultas Kedokteran, P. (2023). Gambaran Pengetahuan Pubertas pada Anak Usia Sekolah di SD Negeri 8 Tondano. In *MNSJ (Vol. 1, Number 2)*. <https://doi.org/https://doi.org/10.35790/mnsj.vii2.48924>
- Nurfadhilah, Rika Sa'diyah, Achmad, N., & Shukri Hilowle, S. (2022). Elementary School Students' Knowledge Regarding Puberty In Jakarta And Surrounding Cities. In *Jurnal Kesehatan Reproduksi* (Vol. 13, Number 2). <https://doi.org/https://doi.org/10.58185/jkr.v13i2.41>
- Papalia, D. E. , & M. G. (2021). *Experience Human Development* (15th ed.) (15th ed.). McGraw-Hill.
- Pender, N. J. , M. C. L. , & P. M. A. (2023). *Health Promotion in Nursing Practice* (9th ed.). Pearson Education.
- Pitaloka, R. D., Keswara, N. W., & Purwanti, A. S. (2024). Hubungan Pengetahuan Tentang Menstruasi Dengan Kesiapan Menghadapi Menarche Pada Siswi Kelas 4-6. *Binawan Student Journal*, 6(1), 36–41. <https://doi.org/10.54771/r42n9k29>
- Rahmawati, L., Kustin, K., & Milla, I. (2024). The Relationship Between Adolescents' Knowledge and Attitudes on Reproductive Health and the Utilization of Information Media. *Journal of Nursing Periodic*, 2(2). <http://journal.uds.ac.id/index.php/JNP>
- Rahmawati, S., Setyowati, S., Budiati, T., & Rachmawati, I. N. (2023). Faktor-Faktor yang Memengaruhi Kesehatan Reproduksi Remaja. *Journal of Telenursing (JOTING)*, 5(2), 2632–2640. <https://doi.org/10.31539/joting.v5i2.7713>
- Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1988). Social Learning Theory and the Health Belief Model. *Health Education Quarterly*, 15(2), 175–183. <https://doi.org/10.1177/109019818801500203>
- Steinberg Laurence D. (2024). *Adolescence*. McGraw-Hill Education.
- Sunarsih, T., Astuti, E. P., Shanti, E. F. A., & Ambarwati, E. R. (2020). Health promotion model for adolescent reproductive health. *Electronic Journal of General Medicine*, 17(3). <https://doi.org/10.29333/ejgm/7873>
- UNFPA. (2023). *State of world population 2023: 8 billion lives, infinite possibilities – The case for rights and choices*.
- WHO. (2023). *Adolescent Health*. <https://www.who.int/healthtopics/adolescent-health>.
- Wijayanti, L. A., Ningrum, F. I., Rahayu, D. E., & Indriani, R. (2025). Hubungan Pengetahuan Menstruasi dengan Kesiapan Menghadapi Menarche pada Siswi SD Kelas IV, V, VI. *MAHESA: Malahayati Health Student Journal*, 5(11), 5249–5258. <https://doi.org/10.33024/mahesa.v5i11.21786>