

Sex Education “Kindly Learn Your Body”

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ABSTRACT

Background: Adolescent reproductive health is a crucial aspect of individual development that requires early attention. Lack of accurate information may increase the risk of engaging in unsafe behaviors and lead to poor understanding of the biological and psychosocial changes occurring during puberty. Therefore, this community service program aims to enhance elementary school students' knowledge of reproductive health through interactive health education. Methods: This activity was conducted at Ricci 1 Catholic Elementary School, West Jakarta, on March 15, 2024. The target audience consisted of 65 fourth-grade students. The health education session was delivered in person using interactive lectures, educational videos, and discussion sessions. Knowledge assessment was performed through pre-test and post-test evaluations using the Quizziz platform. Results: The evaluation results indicated a significant increase in students' knowledge after the educational session. Among female students, the average knowledge improvement was 12%, while among male students, it was 15%. Additionally, participants demonstrated high enthusiasm during the discussion and interactive sessions. Conclusion: Interactive reproductive health education effectively enhances elementary school students' understanding of reproductive health. Continuous educational programs of this kind are essential to empower adolescents in maintaining their reproductive health independently.

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INTRODUCTION

Adolescence is a critical phase of human development characterized by rapid biological, psychological, and social transformations. The World Health Organization (WHO) defines adolescence as the period between the ages of 10 and 19, marking the transition from childhood to adulthood. This stage, which begins as early as the fourth grade of elementary school, necessitates special attention, particularly concerning reproductive health. Reproductive health is not merely the absence of disease but encompasses a state of complete physical, mental, and social well-being in all aspects related to the reproductive system, its functions, and processes. Ensuring optimal reproductive health among adolescents is essential, as they will eventually enter marriage and parenthood, playing a vital role in shaping a healthy and high-quality future generation (WHO, 2018).

However, reproductive health issues remain a significant concern among adolescents. The rapid biological maturation that occurs during this stage often precedes psychosocial maturity, leading to challenges in decision-making, impulse control, and long-term planning. The prefrontal cortex, responsible for executive functions such as rational thinking and self-regulation, develops at a slower rate than the limbic system, which

governs pleasure-seeking behaviors, emotional responses, and reward processing (WHO, 2018, 2024). Consequently, adolescents may be more inclined to explore and engage in risky behaviors without fully considering the potential consequences. The discrepancy between personal needs and societal expectations can further create psychological and social stressors, making adolescents more vulnerable to unsafe reproductive health practices.

The 2017 Indonesian Demographic and Health Survey (SDKI) underscores the severity of this issue, revealing that knowledge of reproductive health among adolescents remains alarmingly low. While 76% of adolescents recognized voice changes as a key characteristic of puberty, and 87.7% identified menstruation as a primary physical change in females, only 21% of girls and 19.9% of boys were aware of the ideal age for marriage (SDKI, 2017). These statistics indicate a substantial gap in reproductive health education, leaving adolescents unprepared to navigate the changes associated with puberty. In addition to limited knowledge, concerning patterns of risky behavior have been observed among Indonesian adolescents. The SDKI 2017 survey found that 2.4% of girls and 70% of boys who had not completed elementary school were already active smokers. Furthermore, 26.6% of female adolescents and 15.5% of male adolescents reported consuming alcohol before the age of 14 (SDKI, 2017). These early exposures to substance use increase the likelihood of engaging in further risky practices, including unsafe sexual activities (Alwi, 2023).

The survey also revealed that 80% of female adolescents and 84% of male adolescents had started dating, with a significant proportion engaging in physical intimacy. Specifically, 75% of boys and 64% of girls reported holding hands, while 50% of boys and 30% of girls had engaged in kissing on the lips. More alarmingly, 22% of boys and 5% of girls admitted to engaging in intimate touching (SDKI, 2017). These behaviors indicate an urgent need for early intervention through comprehensive reproductive health education to equip adolescents with the knowledge and skills necessary to make informed decisions. Without proper education, adolescents may turn to unreliable sources, increasing their risk of misinformation and engagement in unhealthy behaviors (Alwi, 2023).

Recognizing these challenges, international frameworks such as the International Conference on Population and Development (ICPD) emphasize the importance of ensuring that at least 90% of adolescents receive comprehensive education on reproductive health and sexuality. In Indonesia, national regulations align with this initiative, with the Ministry of Health Regulation Number 25 of 2014 defining adolescents as individuals aged 10 to 18 years and the National Population and Family Planning Board (BKKBN) extending this definition to individuals aged 10 to 24 years who have not yet married. These definitions acknowledge the critical period in which young individuals undergo not only physical transformations but also cognitive and emotional developments that shape their ability to make informed decisions regarding their reproductive health (BKKBN, 2017).

Reproductive health, as defined by the BKKBN, extends beyond biological aspects to encompass the development of responsible attitudes, critical thinking skills, and the ability to establish healthy relationships. Adolescents must be equipped with accurate information to navigate these changes safely and confidently. This can only be achieved through the integration of reproductive health education into school curricula and community programs. By fostering a supportive environment and providing accurate information, adolescents can be guided to become a well-informed and responsible generation, capable of making sound reproductive health decisions. Schools and communities must collaborate in delivering comprehensive reproductive health services and education that not only provide factual knowledge but also empower adolescents to develop self-awareness, resilience, and responsible decision-making skills (BKKBN, 2017).

Through early and continuous intervention, the goal is to equip young individuals with the knowledge and confidence to safeguard their reproductive health, ensuring a healthier future for themselves and society as a whole. Given the increasing complexity of adolescent experiences, a comprehensive and age-appropriate reproductive health education program is no longer optional. It is essential in preventing risky behaviors and promoting lifelong well-being.

METHOD

The program is a community-based intervention approach through health education sessions on reproductive health for elementary school students. A pretest-posttest design was used to assess the effectiveness of the intervention in increasing participants' knowledge. This activity was conducted at SD Katolik Ricci 1, Jakarta Barat, targeting fourth-grade students as participants.

The activity consisted of structured health education sessions delivered separately to male and female students. The sessions covered essential topics on adolescent reproductive health, including understanding puberty, reproductive health and hygiene, and protecting personal boundaries. The sessions were conducted in-person using interactive teaching methods, such as lectures, video presentations, discussions, quizzes, and songs, to enhance participant engagement and comprehension. They also received an e-book that could be used

for independent learning at home, allowing them to further understand the physical changes occurring in their bodies.

To evaluate the impact of the intervention, a pretest-posttest evaluation was conducted using a structured questionnaire. A pretest was administered before the educational session using an online platform (Quizziz) to measure baseline knowledge. After the session, a posttest was conducted using the same platform to assess knowledge retention and learning outcomes. The collected data were analyzed by comparing pretest and posttest scores, utilizing descriptive statistics to summarize the results and calculate the percentage increase in knowledge to determine the intervention's effectiveness.

RESULTS

The community service program was conducted on Friday, March 15, 2024, from 08:00 to 10:30 AM WIB. The participants consisted of 65 fourth-grade students from SD Ricci, comprising 31 female and 34 male students, aged 9 to 11 years. The health education session was delivered in person at Hall Matteo and the Audio Room (5th floor) of SD Ricci.

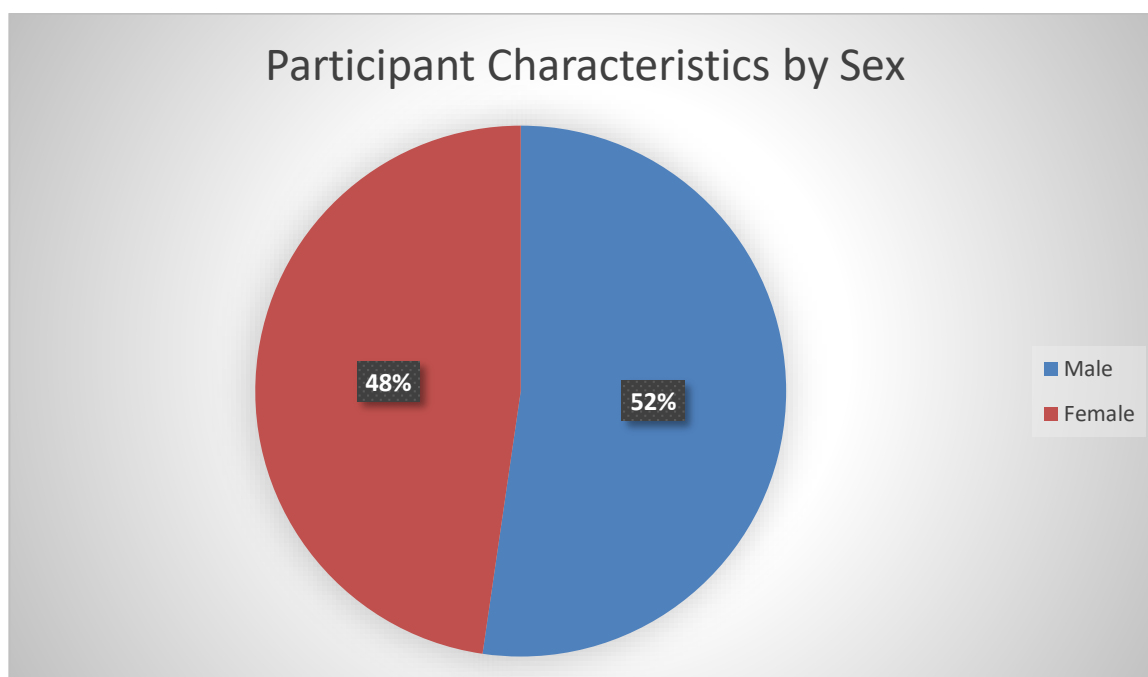


Figure 1. Participant characteristic by sex

This activity was attended by fourth-grade students aged 9 to 11 years, consisting of 31 female and 34 male students. The gender distribution of participants is illustrated in Figure 1

The health promotion session began with a welcome speech from the principal of SD Ricci, followed by a pre-test administered through Quizziz, consisting of five questions tailored to each gender. This pre-test aimed to assess the students' baseline knowledge regarding reproductive health.



Figure 2. Welcome Speech and Briefing by the Principal of SD Ricci



Figure 3. Pre-test for Male and Female Students

The session continued with a presentation on reproductive health, delivered by Dewi Novitasari Suhaid in the male student class and Dyah Woro Kartiko Kusumo Wardani in the female student class. The topics covered included adolescence, reproductive changes during puberty, maintaining reproductive health, and coping with pubertal changes. The material was supplemented with engaging illustrations, as well as songs and videos, to enhance students' comprehension.

The session was conducted in-person, allowing for a more interactive learning experience. Participants posed diverse and insightful questions, such as how to recognize the onset of menstruation and what actions to take after experiencing a nocturnal emission. These questions were thoroughly addressed by the facilitators. Throughout the session, students demonstrated high levels of engagement, enthusiasm, and active participation, indicating strong interest in the subject matter.



Figure 4. Reproductive Health Presentation in the Male and Female Student Class



Figure 5. Question and Answer Session

After the presentation, participants were instructed to complete a post-test in the form of an interactive quiz using Quizziz. Students who achieved high scores were awarded prizes by the organizing team. The final activity included watching an educational video and participating in a group dance, reinforcing the concept of body autonomy and appropriate personal boundaries. The event concluded with a group photo session and a closing prayer led by a teacher from SD Ricci.



Figure 6. Post-test Quizziz Results Display

Table 1. Analysis of Participant Evaluation Results

Description	Item analysis					Score		Mean
	Question 1	Question 2	Question 3	Question 4	Question 5	Maximum	Minimum	
Male Student Class								
Pre-test	64%	81%	74%	71%	70%	100	40	72%
Post-test	89%	94%	83%	83%	89%	100	60	87%
Improvement	25%	13%	12%	12%	19%	-	-	25%
Female Student Class								
Pre-test	77%	86%	80%	86%	80%	100	60	82%
Post-test	92%	95%	92%	95%	95%	100	80	94%
Improvement	15%	9%	12%	9%	15%	-	-	12%

The post-test results indicated a significant improvement in participants' knowledge following the health education session. Among the 65 participants, the post-test scores of 31 female students demonstrated a 12% increase in knowledge, while the scores of 34 male students showed a 15% increase. Further item analysis revealed an overall improvement in both groups. The minimum percentage increase in item scores among female students was 9%, with a maximum increase of 15%, resulting in an average improvement of 12%. In contrast, the minimum increase among male students was 12%, with a maximum of 25%, leading to an average gain of 16.2%. The analysis of both individual test items and overall pre-test and post-test scores demonstrated a statistically significant improvement, with a minimum increase of 12% or higher. These findings highlight

the effectiveness of reproductive health education sessions and the distribution of e-booklets, which facilitated independent learning and reinforced knowledge retention.

Comprehensive reproductive and sexual health education is essential for pre-adolescents, as it helps them understand and adapt to physical and emotional changes that occur during puberty. Early education on reproductive anatomy, including biological differences between males and females, should be delivered continuously in alignment with developmental stages. Adolescence marks the onset of puberty, a naturally occurring process involving physical and emotional transformations. Puberty is also associated with the emergence of secondary sexual characteristics, such as menarche in females and nocturnal emissions in males (Dewi et al., 2023).

Adolescents' curiosity about sexuality is a complex phenomenon influenced by biological, psychological, and social factors. Biologically, hormonal changes during puberty, particularly increased levels of estrogen and testosterone, contribute to heightened curiosity, attraction, and increased awareness of others and oneself. These hormonal fluctuations also influence sexual behaviors and decision-making.

From a psychological perspective, various theories emphasize that puberty brings changes in self-identity and self-perception, which, in turn, increase curiosity. These psychological developments often include a growing awareness of gender differences, evolving social roles, and emotional adjustments. Curiosity can also be triggered by shifting social relationships, exposure to new experiences, and the challenges of adolescence (Aningsih et al., 2023; Suhaid, 2021).

Additionally, social theories highlight the role of environmental and cultural influences in shaping adolescents' curiosity and perceptions of sexuality. Social environments, including family, peers, and community norms, play a crucial role in shaping adolescents' values and behaviors. Cultural standards, societal expectations, and prevailing norms regarding sexuality significantly impact adolescents' understanding and attitudes toward sexual health (Suhaid, 2022; Suhaid & Dewi, 2023).

Curiosity in adolescence is an integral part of overall development, driven by physical, psychological, and social changes. Theories in adolescent development emphasize the importance of experiences and social interactions in shaping sexual identity and gender roles. Therefore, providing valid and developmentally appropriate reproductive and sexual health education is crucial to preventing adolescents from seeking information from unreliable or misleading sources (Suhaid, 2021).

Moreover, reproductive and sexual health education for early adolescents (around 10 years old) should also focus on preventing sexual violence. By educating children about body autonomy and private areas that should not be touched by others, they are empowered to develop protective behaviors and recognize inappropriate actions.

A comprehensive sexual education program can also help adolescents understand that all forms of violence (both physical and psychological) are unacceptable behaviors. By fostering an awareness that violence is inherently harmful, adolescents can develop strategies to avoid situations that may lead to violence and promote healthy interpersonal relationships.

CONCLUSION

The results of this activity demonstrate the effectiveness of structured reproductive health education in enhancing adolescents' knowledge and awareness of their physical and emotional development. The significant improvement in post-test scores among both male and female students indicates that targeted educational interventions, supplemented with accessible learning materials such as e-booklets, contribute to knowledge retention and independent learning. These findings underscore the necessity of evidence-based educational programs to equip adolescents with accurate and developmentally appropriate information on reproductive health.

Moreover, comprehensive reproductive and sexual health education plays a crucial role in guiding adolescents through the physiological and psychological transitions of puberty. The biological, psychological, and social dimensions of adolescent curiosity highlight the need for structured, science-based curricula to mitigate the risks associated with misinformation and uninformed decision-making. By fostering critical thinking and self-awareness, reproductive health education enables adolescents to make informed and responsible choices regarding their well-being.

In addition, reproductive health education must incorporate preventive measures against sexual violence, emphasizing body autonomy, consent, and personal boundaries. Equipping adolescents with knowledge about their rights and bodily integrity fosters self-protection skills and empowerment, thereby reducing vulnerability to exploitation and abuse.

Overall, the findings of this study reinforce the importance of early and continuous reproductive health education in promoting adolescent well-being. Schools, families, and communities must collaborate to ensure that adolescents receive scientifically accurate, culturally sensitive, and age-appropriate information to support their healthy development. By investing in comprehensive and accessible reproductive health education,

societies can cultivate a well-informed, confident, and responsible generation capable of maintaining their reproductive health and making informed life choices.

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