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# Issue of Adolescent Educational Needs on Reproductive Health in The Rural Area of Kulon Progo Yogyakarta: A Qualitative Study

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### **Abstract**

**Background:** Adolescents in rural areas often face greater challenges with reproductive health problems than adolescents in urban areas, including more difficult access to health services, less access to reproductive health information, and limited social support. This affects the high prevalence of reproductive health problems such as teenage pregnancy, sexually transmitted infections (STIs), and limited understanding of sexual and reproductive health rights The objective of this study was to explore the educational needs The purpose of this study is to investigate more comprehensively the needs of adolescents about reproductive health education in rural areas of Kulon Progo, Yogyakarta.

**Method:** This is a qualitative study with a phenomenological approach, and data collection methods with in-depth interviews. The research participants consisted of 10 adolescents who lived in a rural area and were analysed using thematic analysis.

**Result:** Four major themes were found from the results of this research, among others: adolescents' experience of getting education about reproductive health, challenges faced by adolescents around reproductive health education, the most appropriate person to provide reproductive health education to adolescents, and the need for adolescent education on reproductive health.

**Conclusion:** The challenges faced by adolescents living in rural areas regarding reproductive health education: Adolescents feel uncomfortable discussing reproductive health with their parents, but feel comfortable discussing it with their peers, even though they cannot help them. The internet is still the main source for asking questions about reproductive health, but often they do not get the right answers.

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#### INTRODUCTION

Adolescence is a period of transition from childhood to adulthood. the World Health Organization (WHO) defines adolescents as individuals aged between 10 and 19 years. In this period, adolescents experience significant bodily changes, including changes in reproductive organs known as puberty. In addition, adolescents also experience identity development, as well as an increase in complex cognitive and social abilities. This phase is also characterized by a search for self-identity and a decreasing dependence on parents, but tends to be stronger towards peer group influences (WHO, 2020).

According to data from UNICEF (2022), there are more than 1.2 billion adolescents aged 10 to 19 years in the world, accounting for about 16% of the total global population. This figure shows that adolescents are a demographically significant age group, with a greater proportion in developing countries, especially in Asia and Africa (UNICEF, 2022). Based on data from Indonesia's Central Bureau of Statistics (BPS), by 2023, the number of adolescents in Indonesia aged 10-19 is estimated to reach around 70 million people. This number accounts for almost 30% of Indonesia's total population. According to data from the Central Bureau of Statistics (BPS) of Yogyakarta City and the Yogyakarta City Health Office (2023), the population of adolescents aged 10-19 years in Yogyakarta City is estimated to reach around 15-20% of the total population (BPS, 2023).

Reproductive health problems among adolescents are important health issues that require special attention, ranging from sexually infections (STIs), unwanted transmitted pregnancies, and unsafe abortions, to menstrual disorders and mental health problems related to reproductive health. According to the World Health Organization WHO (2020), adolescents who engage in unprotected or unsafe sexual relations are more vulnerable to teenage pregnancy and the transmission of sexually transmitted diseases. It is estimated that by 2023, 16 million adolescent girls worldwide will give birth each year. Most of these pregnancies will occur in countries with limited access to sex education and reproductive health services (Blanchard et al., 2023). In Indonesia, early marriage and teenage pregnancy remain major problems, with around 10% of women under 20 having married or become pregnant (BPS, 2023). These conditions pose a high risk to the physical and mental health of adolescents and can exacerbate gender inequality in society. Furthermore, adolescents are not immune to the issues of juvenile delinquency, substance abuse, and other negative behaviours. According to the Yogyakarta City Health Office (2023), cases of teenage pregnancy and illegal abortion are high in the city, especially among students. In addition, other reproductive health problems such as menstrual disorders, menstrual irregularities, and anxiety and depression due to reproductive health problems are also widely reported by local health facilities. Despite having access to better education and information, most adolescents in Yogyakarta still face challenges in gaining knowledge about reproductive health. Barriers to preventing more serious reproductive health problems include a lack of open communication between adolescents and parents and ignorance about sexual and reproductive rights (Yogyakarta City Health office, 2023).

Adolescents in rural areas often face greater challenges with reproductive health problems than adolescents in urban areas, including more difficult access to health services, less access to reproductive health information, and limited social support. This affects the high prevalence of reproductive health problems such as teenage pregnancy, sexually transmitted infections (STIs), and limited understanding of sexual and reproductive health rights. Unintended teenage pregnancies not only affect the physical and mental health of adolescents but also threaten to increase poverty and social inequality and hinder education and employment opportunities for adolescent girls. In many rural areas, strong social norms and limited access to sexuality education and reproductive health services exacerbate the problem.

According to the World Health Organization (WHO), adolescents in rural areas often face difficulties in accessing accurate information and reproductive health services that suit their needs. In addition, awareness about contraceptive use remains low

in many rural areas, leading to more frequent unintended pregnancies and STI transmission (WHO, 2020). The lack of comprehensive sexual education in schools and families, as well as the stigma attached to talking about sexuality, exacerbates this situation. Unsafe abortions are also common in rural areas, as there is limited access to health facilities that can provide safe and legal abortion services. According to research conducted by the World Health Organization (WHO), nearly 45% of all abortions performed in developing countries are unsafe, and adolescents in rural areas are among the most vulnerable groups to illegal abortions that pose a high risk to their health (WHO, 2020). Based on these data, researchers are interested in digging deeper into the issue of adolescent education needs on reproductive health in the rural area of Kulon Progo, Yogyakarta.

## **METHODS**

## Study design and setting

The research that has been conducted is a qualitative study, with a phenomenological approach, and data collection methods with in-depth interviews. This design is ensured to describe the ideas, opinions, and experiences of adolescents related to education about reproductive health, especially adolescents living in rural areas. This research was conducted in September -December 2023 ethical clearance from the Medical and Health Research Ethics Commission, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada -RSUP Dr. Sardjito, with number KE/FK/1447/ EC/2023. This research has been conducted in Kulon Progo, one of the regencies in Yogyakarta, which is located at the western end of Yogyakarta Province. Kulon Progo consists of 12 sub-districts, most of which are rural areas. One of them is Girimulyo sub-district. There are 6 junior high schools in Girimulyo Subdistrict, then one school was chosen which is located the farthest from the district city, which is located in a rural area, located quite far from the city center, far from the crowd, and because of its height and area it is rather difficult to reach by internet.

### Study population

The sample of this study was 10 junior

high school adolescents aged 11-14 years who attended school and lived in Girimulyo District in rural areas. The number of samples is determined until the data meets data saturation. The sampling technique used was purposive sampling and sought maximum variation. sample selection was assisted by the accompanying teacher, with variations in the characteristics of students in grades 7 to 9, male and female, and students who were active and inactive in student activities. Data collection techniques were chosen with semistructured in-depth interviews considering the topics discussed were rather sensitive and so that students could talk more openly with researchers.

### **Data collection**

Data collection was carried out through in-depth interviews with each respondent. The researcher conducted the interviews herself, which took place at the school. Participants were invited to the school individually for their interviews. The interview was guided by a simple interview guide that had been prepared by the researcher beforehand. The interview guide was developed based on references related to the need for education on reproductive health in adolescents. During the interview, the main researcher was also supported by 4 assistants, who were nursing students, who acted as facilitators of the activities, prepared places, prepared recording devices, recorded the results of the interviews, made observations, and recorded important conditions that occurred during the in-depth interviews. Each in-depth interview lasted approximately 30-45 minutes. During data collection, the interviews were recorded using a digital recorder, and the files were downloaded to a laptop for later transcription, coding, and data analysis. To ensure the confidentiality of the data, respondents' names were not included in the data collection; the researcher used initials only.

### Data quality assurance

To ensure the quality and consistency of the data, the interviews were conducted by the lead researcher who had some experience in qualitative research interviews and was guided by an interview guide that had been developed by the research team regarding the research objectives. The researcher conducted bracketing, where the researcher held back ideas, prejudices, and personal knowledge when listening to and reflecting on the life experiences of the participants. During the interviews, the main researcher was also assisted by several research assistants who were in charge of making field notes that occurred during the interviews. The results of the interviews were immediately recorded and then transcribed by the research team. The researcher also conducted member checking by conveying the results of the transcript and whether it was by the opinions of the participants. In addition, the researcher also triangulated the source, namely the student assistant teacher. In the analysis process, the researcher conducted

peer debriefing (between the research team) to improve the accuracy of the research results.

# Data analysis

Data were transcribed using the patternmatching method, and data were analysed using thematic analysis. The data was combined into relevant themes derived from the research objectives for analysis and interpretation.

#### RESULT

In this qualitative research, interviews were conducted with 10 adolescents from one of the schools located in a rural area in Girimulyo District, Kulon Progo Regency Yogyakarta. The following characteristics of the respondents can be seen in Table 1.

Table 1. Characteristic Participant

Participant	Age	Gender	Class in junior high school
1	14	female	8
2	12	female	7
3	13	female	8
4	15	female	9
5	14	male	8
6	13	male	7
7	14	male	8
8	12	female	7
9	14	female	9
10	14	male	8

Based on the results of this study, 4 major themes consisting of 7 sub-themes with 29 categories and 100 codes were found. The full list of themes can be seen in Table 2.

Table 2. Themes and categories related to the issue of adolescent education needs on reproductive health in rural areas.

No	Tema	Sub Tema	Kategori
1	A d o l e s c e n t s 'experience of reproductive health education	F	<ol> <li>Mother's source of information</li> <li>Parents' source of information</li> <li>Father's source of information</li> </ol>
2	Challenges faced by adolescents around reproductive health education	1. Some adolescents do not feel comfortable asking and discussing	how to clean reproductive
		•	Have had discussions with parents about menstruation and how to care for menstruation

2. Friends are comfortable as a

help solve problems

reproductive health.

3. Adolescents

their peers

place to share, but they cannot

themselves

lack the confidence to provide

reproductive health education to

- 3. Never talk to my parents, because I am not close to them.
- 4. Never talked to parents because of embarrassment
- 5. Never shared with parents, only with friends.
- 6. Friends can give simple advice, but expect more
- From friends, we hope to be given solutions to the problems we are facing.
- 8. Friends can be used as a place to share
- 9. Friends sometimes provide solutions, but sometimes not
- still 10. A little more confident when providing education to close friends.
  - 11. Lack of confidence due to fear of being noticed and fear of getting the answers wrong
  - 12. Not confident, for fear of giving the wrong information
  - 13. Somewhat confident, for fear that the material delivered or the way it is delivered does not suit the friend
  - 14. Not confident due to a lack of mastery of the material
  - then comparing it with the information provided by my mother.
  - 16. Googling, but not getting answers
  - 17. Access the internet and don't get answers
  - 18. Internet, but the information is too broad

- 4. The internet is still a mainstay 15. Accessing TikTok media and for asking questions about reproductive health, but often does not get appropriate answers and cannot help
- The most appropriate person to provide reproductive health education to adolescents
- 1. The most appropriate person 1. to provide reproductive health education or the most appropriate person to provide solutions to 2. reproductive health problems is parents.
  - Parents, because it's more open, closer to, so it's more comfortable
  - Parents, because the language is easy to understand
  - Parents, but rarely talk to parents, but if it's hard to tell parents
  - Parents (Mother), because mothers provide more solutions and can maintain privacy
  - Parents, because they provide more explanation and ask the midwife. Parents are more experienced than friends.

# needs on reproductive health

Adolescent education 1. The need for knowledge about 1. reproduction according adolescents is recognize 2. to reproductive organs and their functions, how to care reproductive organs, how to avoid diseases of the reproductive 4. organs and how to avoid unwanted pregnancies.

- Issues surrounding reproductive health
- Reproductive organs, wet dreams
- How to maintain reproductive
- Menstruation and how to maintain reproductive organs
- diseases of Avoiding reproductive organs
- Avoiding unwanted pregnancy

# Theme 1. Adolescents' experience of getting education about reproductive health

Adolescents reported that they first gained knowledge about reproductive health from their parents, as the people closest to them. For male participants, it was the father who provided information about reproductive health, while for female participants, it was the mother who delivered the information. This is corroborated by some quotes from participants as follows:

> "I have received information from my mother when I was in grade 6, I was advised to pay attention during menstruation and when to change pads if it is about organs, diseases, and teenage pregnancy, I have never received information." (Participant 2)

> "I have been told by my parents (mother), told about how to clean the reproductive organs, how to clean the reproductive organs, what to do when I am menstruating." (participant 6)

> "My father once told me about the importance of reproductive organ hygiene" (participant 10).

# Theme 2. Challenges faced by adolescents around reproductive health education

Based on the results of this study, it turns out that adolescents living in rural areas experience several challenges surrounding education about reproductive health, namely: Some adolescents do not feel comfortable asking or discussing reproductive health with their parents. Although based on the experience of adolescents, the people who convey information about reproductive health are parents, some adolescents do not feel comfortable asking and discussing reproductive health with their parents. This is due to several reasons, namely: because they are not close to their parents, or

because they are embarrassed. This is shown in the following quotation:

> "I never talk to my parents, because I am not close to my parents" (participant 6).

> "I never discuss with my father or mother, because I am embarrassed." (participant 10) "I never talk to them (parents), I just talk to friends, especially about reproductive organs." (participant 9)

Friends are comfortable as a place to share, but cannot help solve problems about reproductive health. Adolescents stated that the theme is the most comfortable place to share, but for solving reproductive health problems, they often do not get the answer, as shown by the following quotations:

> "Friends can be playmates or friends to express feelings. "Confide about daily life, reproductive health (saying that they are in the menstrual phase, feeling menstrual pain, and stories about the volume of menstrual blood that is sometimes a lot and sometimes a little each period)."(participant 1)

> "Friends sometimes provide solutions, but not solutions. Friends as a place to tell and discuss." (participant 7)

> "Friends, yes, provide solutions, but the way to respond is 'it's like that" (Participant 3)

> "Once told/ express feeling, why her stomach felt painful during menstruation, then her friend suggested drinking warm water and herbal medicine. Hopefully, friends can provide information clearly." (Participant 4)

Adolescents themselves still lack the confidence to provide reproductive health education to their peers.

Based on adolescents' opinions, it is expected that friends can be a good source of information about reproductive health, so it is expected that a friend can provide reproductive health education to their peers. However, based on the results of the interview, it was found that adolescents themselves lack the confidence to provide health education on reproductive health for several reasons that can be seen in the following quotation:

"A little confident, if it's to a close friend. If it's a presenter, I'm not yet conficent because I'm afraid of being noticed and afraid of the wrong answer." (participant 1)

"I am not confident, because I am afraid of giving the wrong information." (participant 3)

"I am somewhat confident because I am afraid that the material delivered or the way of delivery is not by the friend." (participant 4)

"I am not confident because I haven't mastered the material. I will if I have mastered the material and will only share it with close friends." (participant 10)

The internet is still a mainstay for asking questions about reproductive health, but often does not get appropriate answers, and cannot help. Adolescents living in rural areas can still access the internet, although the opportunities are more limited compared to adolescents living in urban areas. The problem often encountered in internet access is the signal that is lost and in some areas, is not covered by the internet signal. Related to information about reproductive health, adolescents also often utilize the internet to find answers to their problems about reproductive health. Sometimes they get answers, but sometimes they cannot help, as can be seen in the following quotation:

"Usually I ask my mom, but I once searched on TikTok why menstruation hurts so much, sometimes it is also compared to my mom's answer." (participant 1)

"I have searched on Google about the disease, but it doesn't answer." (participant 2)

"I have searched the internet, but rarely, because sometimes if you find out through the internet, there is a lot of information that makes you guess and become afraid. So it's better not to find out more." (Participant 6) "Once, I wanted to know about an itchy disease in the genital organs, then searched the internet about the cause of the itch

and felt that the internet was not helpful."

(participant 10)

# Theme 3. The most appropriate person to provide reproductive health education to adolescents

The most appropriate person to provide reproductive health education according to adolescents is parents for several reasons, namely because parents are closer so they are more comfortable telling stories, parents use simple language so that it is easy to understand, parents provide solutions and can maintain privacy, and also because parents are more experienced than just asking friends. Evidenced by some of the following quotations:

"Parents are the most appropriate people, because they are more open, closer to, so it is more comfortable." (participant 1)

"Parents are reliable because they are closer, more open, and the language is easy to understand." (participant 2)

"Parents, because they give more explanations, and parents are more experienced than friends." (participant 8)

"I don't tell my parents because of prestige and embarrassment, and my parents also don't ask about our problems!" (participant 9)

# Theme 4. Educational needs of adolescents on reproductive health

The results of this study obtained interesting results related to the educational needs of adolescents on reproductive health. According to Adolescents, they need several educational materials related to reproductive health, namely: knowing reproductive organs and their functions, how to care for reproductive organs, how to avoid diseases of the reproductive organs, and how to avoid unwanted pregnancies. This opinion of adolescents can be seen in full in the following quotation:

"The core materials I need are about menstruation, how to treat diseases, what needs to be done." (participant 1)

"Reproductive health diseases or risks, the menstrual process, why can it hurt during menstruation?" (participant 2)

"Material about diseases related to reproductive health, because what is in the textbook is still incomplete." (participant 4) "About reproductive organs, wet dreams, why can you have strange dreams during wet dreams when you are not thinking about anything?" (participant 5)

"I need important information on how to avoid an unwanted pregnancy." (participant 9)

### **DISCUSSION**

# Theme 1. Adolescents' experience of receiving education on reproductive health

Reproductive health education is very important for adolescents, as this period is a transitional period full of physical, emotional, and social changes. To prepare adolescents to understand body changes and make healthy decisions, they need to get correct and reliable information. Based on the results of this study, the experience of getting education comes from parents, information is obtained from mothers for female participants and information is obtained from fathers for male participants. Previous research suggests that parents need to increase the urgency to have conversations with their children about sex, and educators and pediatricians should encourage parents to initiate conversations at least as early as adolescence, and with increasing frequency over time (Laura and Padilla-Walker, 2018). Based on a literature review conducted by Kramer et al, (2010) states that the more positive the quality of the relationship between fathers and adolescents will reduce risky sexual behavior in adolescents, which is equivalent to the role of the mother. Although fathers independently shape the sexual behavior of their adolescent children compared to mothers. (Kramer et al, 2010)

In some countries, reproductive health education is provided through the school curriculum. These programs generally include information on body changes, menstrual cycles, contraception, and prevention of sexually transmitted diseases (STDs). However, research shows that the quality and coverage of the material taught often vary between schools. In some places, the materials taught are more limited or only cover inadequate basic information, while in others, topics are more in-depth and comprehensive (Mark and Wu, 2022). Adolescents' experiences in receiving reproductive health education at school can be influenced by the attitude of teachers and the support system in the school.

In some schools, there is a more open and nonjudgmental approach to teaching sensitive topics, while in other schools, the material may be more normative or based on certain religious and cultural views, which affects the way information is delivered.

# Theme 2. Challenges faced by adolescents around reproductive health education

Some adolescents do not feel comfortable asking and discussing reproductive health with their parents. In some cultures, talking about sexuality and reproductive health is often considered taboo and inappropriate. This is reflected in a study by Dahlberg and Krug (2002), which found that cultural stigma related to sexual talk is still strong in many societies. Parents often assume that these topics should not be discussed openly, so adolescents feel that questions about these topics will cause embarrassment (Dahlberg & Krug, 2002) Research by Wamoyi et al (2010), shows that many parents feel that they do not know the right way to initiate conversations about reproductive health. As a result, adolescents tend to seek information from peers or other sources that are not always reliable (Wamoyi et al, 2010). According to Bankole et al (2007), many countries still provide very minimal sexual education, which affects adolescents' knowledge about their bodies and reproductive health. This ignorance can lead to embarrassment or uncertainty, which in turn reduces adolescents' encouragement to ask questions or discuss with their parents.

Friends are comfortable as a place to share, but cannot help solve problems about reproductive health. Peers are often a comfortable place for adolescents to share feelings, experiences, or personal problems, including issues related to reproductive health. Many adolescents find it easier to talk about sensitive topics such as sexuality with their friends than with parents or teachers. While friends can be a comfortable place to share, it is important to note that they may not have sufficient knowledge or skills to provide accurate advice or help resolve reproductive health-related issues. Peers and family have an important role in promoting health during adolescence, as well as the perceptions

adolescents have about their quality of life and subjective well-being. Health not only depends on health services when sick; instead, influences from different environments can be very important. Bankole et al (2007) revealed that one of the main reasons why many adolescents do not receive sex education is that it is not provided in their schools, causing adolescents to rely more on unreliable sources, such as peers, who often cannot provide adequate information (Bankole et al, 2007).

Adolescents themselves still lack the confidence to provide reproductive health education to their peers. Research by Friedman et al. (2005) shows that although peers can provide emotional support, they usually do not have the expertise to provide concrete solutions or suggest appropriate medical measures. In such cases, adolescents need to seek guidance from trained health professionals for accurate and safe help. One of the main reasons why adolescents lack the confidence to provide reproductive health education to peers is the lack of sufficient knowledge on the topic (Friedman, & Stryker, 2005). Although some adolescents may have a basic understanding of reproductive health, many feel that their knowledge is still limited or not in-depth enough to provide accurate information. Research by Wamoyi et al (2010), showed that many adolescents do not have adequate knowledge about reproductive health issues, which causes them to feel less confident to talk about the topic with their peers. They worry if the information they convey is incorrect or incomplete, which could lead to confusion or even mistakes. (Wamoyi et al, 2010)

The Internet is still a mainstay for asking questions about reproductive health but often does not get appropriate answers and cannot help. According to Nwagwu (2007), the Internet was not the first choice of reproductive health information source for both in-school and out-of-school adolescent girls in Owerri, Nigeria (Nwagwu, 2007) However, this source was more frequently used by out-of-school adolescents than in-school adolescents, but inschool adolescents had a better assessment of the quality of information they obtained from the Internet. In Jones and Biddlecom's (2011) study, most adolescents used the Internet daily,

but few considered it their primary source of information on reproductive health. Students are more likely to rely on and have greater trust in traditional sources of sexuality education such as schools, family members and friends (Jones and Biddlecom, 2011).

Peer-led sexual health education is one way to address deficiencies in adolescent sexual health. Health education by peers is based on health beliefs and habits formed during childhood and adolescence that carry over into adulthood and adolescents influence each other's attitudes and behaviors (Kim and Free, 2008). Research by Selkie et al (2013) shows that adolescents are enthusiastic and insightful about technology to improve sexual health education. The use of technology has an impact on inhibiting adolescent health communication with peers (Selkie et al, 2011) Information obtained from peers or the internet is often incomplete or even incorrect. This creates further discomfort in asking parents, as adolescents feel that parents may not understand or keep up to date with the latest information. The study also revealed that many adolescents seek information about sexuality from unreliable sources, such as the internet, rather than from health professionals or trained adults.

# Theme 3. The most appropriate person to provide reproductive health education to adolescents

Adolescents perceive parents authoritative figures who provide information that is more accurate and in line with their family values. This is particularly important in the context of reproductive health, where incorrect or inadequate information can lead to negative impacts on adolescents' sexual behavior. In addition, parents who are involved in reproductive health education can also reduce the risk of risky behaviors that are often associated with a lack of knowledge, such as unsafe sexual intercourse, teenage pregnancy, or sexually transmitted infections (STIs). According to a study by Murry et al (2007), changes caused by interventions in parenting behaviors, including communication, were associated with changes in sexual behavior among African-American adolescents.(Murry et al, 2007) Adolescents who get adequate reproductive health education from parents tend to have a better level of knowledge and are wiser in making decisions about their sexual health. Ndugga et al (2023) showed that parents are the most appropriate source of education in providing information about reproductive health because they can provide in-depth guidance and in accordance with existing family and cultural values (Ndugga et al, 2023). If adolescents feel comfortable with this communication, they will be more open and responsible in maintaining their health.

# Theme 4. The need for adolescent education on reproductive health

Adolescents need several educational materials related to reproductive health, namely: recognizing reproductive organs and their functions, how to care for reproductive organs, how to avoid diseases of the reproductive organs, and how to avoid unwanted pregnancy. This culture-based and theory-based intervention successfully improved mother-child communication on sexual risk reduction. Parents as protective factors, including communication by mothers, to reduce HIV risk and control the behavior of African American adolescent boys (Zhang et al, 2018).

Without adequate education, adolescents may not have a proper understanding of how to take care of their reproductive health, which can lead to risky behaviors, such as unprotected sexual intercourse, which can increase the risk of transmission of sexually transmitted infections (STIs) and unwanted pregnancy (Speizer et al, 2003). In addition, this education also provides a space for adolescents to learn about healthy communication in relationships, the importance of consent, and how to deal with peer pressure that can encourage risky education, behaviors. Without sufficient adolescents may feel confused or unprepared to deal with various situations related to reproductive health. Research shows that a lack of adequate reproductive health education can increase the likelihood of adolescents engaging in risky sexual behavior or even experiencing violence in relationships (WHO, 2020). According to a study by Frans (2015), adolescents need a more holistic approach to

reproductive health education, which not only teaches about the anatomy and physiology of the body but also helps them understand personal values, life choices, and healthy relationships (Frans, 2015). This is important because education that only focuses on the physical aspect often lacks a deeper understanding of feelings, communication, and responsibility in the context of sexual relationships.

#### **CONCLUSION**

Adolescents' experience of getting reproductive health. education about adolescents reported that they first gained knowledge about reproductive health from their parents, as the people closest to them. Challenges faced by adolescents living in rural areas around reproductive health education: Some adolescents do not feel comfortable asking or discussing reproductive health with their parents. Friends are comfortable as a place to share, but cannot help solve problems about reproductive health. Adolescents themselves still lack the confidence to provide reproductive health education to their peers. The Internet is still a mainstay for asking questions about reproductive health, but often does not get appropriate answers and cannot help. The need for knowledge about reproduction, according to adolescents, is to recognize reproductive organs and their functions, how to care for reproductive organs, how to avoid diseases of the reproductive organs, and how to avoid unwanted pregnancies.

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# CONFLICT OF INTEREST

The authors declare that there's no conflict of interest.

# REFERENCES

Bankole A, Biddlecom A, Guiella G, Singh S, Zulu E (2007), Sexual Behavior, Knowledge and Information Sources of Very Young

- Adolescents in Four Sub-Saharan African Countries, *Afr J Reprod Health*. 2007; 11(3): 28–43. https://pmc.ncbi.nlm.nih.gov/articles/PMC2367131/pdf/nihms42614.pdf
- Blanchard, S., et al. (2023). Adolescent Pregnancy: A Global Health Issue. *The Lancet Global Health*.
- Central Bureau of Statistics (BPS) (2023) of Yogyakarta City and the Yogyakarta City Health Office https://www.bps.go.id/
- Dahlberg, L. L., & Krug, E. G. (2002). Violence prevention and intervention: Evidence-based strategies. *World Health Organization*. Retrieved from https://www.who.int
- Frans E, (2015), A Practical Guide to Holistic Sexuality
  Education, Evidence-based Approaches to
  Sexuality Education, 1st Edition, 2015, Imprint
  Routledge, eBook ISBN 9781315755250,
  https://www.taylorfrancis.com/chapters/
  edit/10.4324/9781315755250-12/practicalguide-holistic-sexuality-education-erikafrans
- Friedman, L. S., & Stryker, J. (2005). Teens and sexual health: Knowledge, attitudes, and behaviors. *Adolescent Medicine: State of the Art Reviews*, 16(1), 137-145. Retrieved from https://journals.lww.com
- Jones R K, and Biddlecom U E (2011) Is the Internet Filling the Sexual Health Information Gap for Teens? An Exploratory Study, *Journal of Health Communication*, 16:112–123, 2011, Copyright # 2011 Guttmacher Institute ISSN: 1081-0730 print=1087-0415, https://doi.org/ 10.1080/10810730.2010.535112112
- Kim C R and Free C (2008) Recent Evaluations of the Peer-Led Approach in Adolescent Sexual Health Education: A Systematic Review, *International Family Planning Perspectives*, Jun., 2008, Vol. 34, No. 2 (Jun., 2008), pp. 89-96 Published by: Guttmacher Institute Stable URL: https://www.jstor.org/stable/30039271
- Kramer, Laurie. "The essential ingredients of successful sibling relationships: An emerging framework for advancing theory and practice." *Child Development Perspectives* 4.2 (2010): 80-86. https://srcd.onlinelibrary.wiley.com/doi/abs/10.1111/j.1750-8606.2010.00122.x
- Laura M and Padilla-Walker (2018). Longitudinal Change in Parent-Adolescent Communication About Sexuality, *Journal of Adolescent Health* 63 (2018) 753-758, https://doi.org/10.1016/j.jadohealth.2018.06.031
- Mark N D E and Wu L L (2022), More comprehensive sex education reduced teen births: Quasiexperimental evidence, PNAS 2022 Vol. 119

- No. 8, e2113144119, https://doi.org/10.1073/pnas.2113144119
- Ministry of Health of the Republic of Indonesia and the Central Bureau of Statistics (BPS). Profil Kesehatan Indonesia 2022. Kementerian Kesehatan Republik Indonesia. Retrieved from https://www.kemkes.go.id/
- Murry VM, Berkel C, Brody GH, (2007), The strong African American families program: Longitudinal pathways to sexual risk reduction. *J Adolesc Health* 2007; 41:333–42. DOI: 10.1016/j.jadohealth.2007.04.003
- Ndugga P, Kwagala B, Wandera S O, Kisaakye P, Mbonye M K, Ngabirano F (2023)"If your mother does not teach you, the world will…": a qualitative study of parent-adolescent communication on sexual and reproductive health issues in Border districts of eastern, *BMC Public Health* (2023) 23:678 https://doi.org/10.1186/s12889-023-15562-6
- Nwagwu W E, (2007) The Internet as a source of reproductive health information among adolescent girls in an urban city in Nigeria, *BMC Public Health* 2007, 7:354 doi:10.1186/1471-2458-7-354, http://www.biomedcentral.com/1471-2458/7/354
- Selkie EM, Benson M, Moreno M (2011) Adolescents' Views Regarding Uses of Social Networking Websites and Text Messaging for Adolescent Sexual Health Education, *American Journal of Health Education*, 42:4, 205-212, DOI: 10.1080/19325037.2011.10599189 To link to this article: https://doi.org/10.1080/19325037.2011.10599189
- Speizer, I. S., Magnani, R. J., & Colvin, C. E. (2003). The effectiveness of adolescent reproductive health interventions in developing countries: a review of the evidence. *Journal of adolescent health*, 33(5), 324-348.
- Tome G, Gaspar de Matos M, Simoes C, Camacho I, Diniz J A (2012)How Can Peer Group Influence the Behavior of Adolescents: Explanatory Model, *Glob J Health Sci* 2012 Mar 1;4(2):26–35. doi: 10.5539/gjhs. v4n2p26, https://pmc.ncbi.nlm.nih.gov/articles/PMC4777050/
- UNICEF. (2022). Adolescents: The age of opportunity.
  United Nations Children's Fund. https://
  www.unicef.org/documents/adolescenceage-opportunity
- Wamoyi J, Fenwick A, Urassa M, Zaba B, Stone W (2010), Research Parentchild communication about sexual and reproductive health in rural Tanzania: Implications for young people's sexual health interventions, *Reproductive Health* 2010, 7:6

- http://www.reproductive-health-journal.com/content/7/1/6,
- World Health Organization (WHO). (2020). Adolescence development. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/adolescents-health-risks-and-solutions
- World Health Organization (WHO). (2020). Adolescents: Health risks and solutions. World Health Organization. Retrieved from https://www.who.int/news-room/fact-sheets/detail/adolescents-health-risks-and-solutions
- World Health Organization. (2020). Adolescent

- health and well-being. https://www.who.int/news-room/fact-sheets/detail/adolescent-health
- Yogyakarta City Health Office (2023), *Profil Kesehatan Remaja Kota Yogyakarta 2023.*Dinas Kesehatan Kota Yogyakarta. https://dinkes.jogjakota.go.id/
- Zhang J, Cederbaum J A, Jemmot J B, Jemmot L S, (2018) Theory-Based Behavioral Intervention Increases MotherSon Communication About Sexual Risk Reduction Among Inner-City African-Americans, *Journal of Adolescent Health* 63 (2018) 497-502, https://doi.org/10.1016/j.jadohealth.2018.04.017