

Overview of Female Adolescents' Knowledge of the Risks of Adolescent Pregnancy at MA Mamba'ul Ulum Tunjungmuli, Purbalingga Regency

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Abstract

Teenage pregnancy is a health issue that increases the risk of complications for both the mother and the baby. The low level of knowledge among adolescents regarding the risks of teenage pregnancy is one of the factors contributing to the occurrence of early pregnancies. Therefore, it is necessary to understand the level of knowledge among adolescent girls regarding the risks of teenage pregnancy. To understand the level of knowledge among adolescent girls about the risks of teenage pregnancy at MA Mamba'ul Ulum Tunjungmuli, Purbalingga Regency. The research uses a quantitative descriptive design with a cross-sectional approach. The sampling technique used total sampling on 47 students from grades X and XI. The research instrument was a questionnaire containing 15 questions with a Guttman scale. Data analysis was conducted univariately and presented in the form of frequency distribution and percentage. The majority of respondents were 16 years old, 25 people (53.19%), in the 10th grade, 25 people (53.19%), all had received information about teenage pregnancy, 47 people (100%), and the most common source of information was electronic media, 36 people (65.46%). The level of knowledge showed that most respondents had good knowledge, 24 people (51.06%), sufficient knowledge, 19 people (40.43%), and poor knowledge, 4 people (8.51%). The majority of female adolescents at MA Mamba'ul Ulum Tunjungmuli have a good level of knowledge regarding the risks of teenage pregnancy.

Keywords: *Adolescent Girls' Knowledge, Teenage Pregnancy, Pregnancy Risks.*

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A. INTRODUCTION

Adolescent pregnancy refers to pregnancy occurring in females aged more than 15 and less than 20 years. Pregnancy before the age of 20 may increase the risk of medical complications for both the mother and the baby (Wibawa et al., 2023). In addition, premarital sexual behavior and risky social interactions may increase the likelihood of unintended pregnancy. Adolescent pregnancy is also associated with an increased risk of maternal and infant mortality (Lestari et al., 2025).

It is estimated that approximately 21 million adolescent girls aged 15–19 years in developing countries experience pregnancy, with around 12 million giving birth. The adolescent birth rate decreased from 64.5 births per 1,000 women aged 15–19 years in 2000 to 41.3 births per 1,000 women in 2023. Although the global adolescent birth rate has shown a declining trend, the actual number of births among adolescents remains high. In 2021, the highest number of births among adolescents aged 15–19 years was recorded in Southeast Asia, with approximately 6,114,000 births, while the

lowest number was recorded in Central Asia, with 68,000 births (World Health Organization, 2024).

The phenomenon of adolescent pregnancy in Indonesia indicates an ongoing public health issue that requires attention. According to Statistik (2025), females aged 16–18 years accounted for 18.47%, or 25,470,130 individuals, in 2023, which decreased to 17.58%, or 24,541,680 individuals, in 2024. The prevalence of early pregnancy in this province was approximately 12–15%, equivalent to 162,029–202,537 adolescents aged 15–19 years, with the highest rates reported in Purbalingga and Banjarnegara Regencies. Data from the Central Java Provincial Health Office (2022) showed that the adolescent birth rate decreased from 20%, or 533,758 individuals, in 2022 to 18%, or 484,040 individuals, in 2023. However, data obtained from the Karangmoncol Community Health Center showed that the incidence of adolescent pregnancy increased from 2023 to 2024. In 2023, there were 46 cases, while in 2024 the number increased to 70 cases of early pregnancy (Karangmoncol Community Health Center, 2025). These data indicate that adolescent pregnancy remains an issue requiring continuous intervention to achieve a significant reduction in its incidence.

Knowledge is one of the important factors that may be associated with adolescent pregnancy. An understanding of reproductive health is essential for adolescents to obtain accurate information regarding reproductive processes. The availability of accurate information is expected to contribute to the development of responsible attitudes and behaviors toward reproductive health (Seyaningsih et al., 2020). Adequate knowledge of reproductive health, including the risks of adolescent pregnancy, can serve as a basis for adolescents in making informed decisions and taking preventive measures against pregnancy.

Adolescent pregnancy may also be influenced by risky social interactions and premarital sexual behavior. Such conditions may prevent female adolescents from completing their education optimally, which may subsequently affect parenting patterns and the education of their children in the future (Sili et al., 2024). In addition, sociocultural factors also contribute to adolescent pregnancy. In rural areas, for example, early marriage remains relatively common and is generally followed by pregnancy. Other factors contributing to adolescent pregnancy include limited knowledge and restricted access to health information, which may reduce adolescents' ability to protect themselves from unintended pregnancy (Fadilah et al., 2024).

The issue of female adolescents' knowledge regarding the risks of adolescent pregnancy has also been demonstrated by previous studies. A study conducted by Amdadi et al. (2021) among 30 female students at SMA Negeri 1 Gowa found that the majority of respondents, or 53%, had a low level of knowledge regarding the risks of adolescent pregnancy. Furthermore, a study conducted by Fransiska et al. among 301 adolescent girls in Sanggalangi District, North Toraja Regency, found that 24% of adolescent girls had a moderate level of knowledge regarding the effects of early pregnancy. These findings indicate that female adolescents' knowledge regarding the risks and consequences of early pregnancy remains an important issue that requires attention.

Previous studies have focused on various aspects of adolescent pregnancy. Amdadi et al. (2021) conducted a descriptive quantitative study examining female adolescents' knowledge of the risks of early pregnancy at SMA Negeri 1 Gowa. Meanwhile, Claret (2022) investigated the level of knowledge among female adolescents regarding the effects of early pregnancy in Sanggalangi District, North Toraja Regency, using a quantitative approach with a cross-sectional design. Fransiska, Boy Sili, and Sri Kustiyati (2024) conducted an analytical quantitative study using a cross-sectional design to examine female adolescents' knowledge and attitudes toward early pregnancy, with the findings indicating a relationship between knowledge and attitudes toward early pregnancy. Furthermore, Dian Lestari and Meylissa (2025) analyzed female adolescents' knowledge and attitudes regarding early pregnancy and found that their levels of knowledge and attitudes ranged from moderate to low. In contrast to these studies, the present study employs a descriptive approach and focuses on describing female adolescents' level of knowledge regarding the risks of adolescent pregnancy without analyzing relationships between variables.

A preliminary study conducted at the Karangmoncol Community Health Center found that most adolescents who experienced pregnancy during adolescence were 17–18 years old. This indicates that a considerable proportion of pregnant adolescents were still attending school. The highest incidence of early pregnancy was found in Kramat and Tunjungmuli Villages. This condition highlights the importance of assessing female adolescents' knowledge regarding the risks of adolescent pregnancy, particularly among adolescents living in areas with relatively high rates of early pregnancy.

Based on these conditions, MA Mamba'ul Ulum Tunjungmuli was selected as the research site because it is located in the area surrounding Kramat and Tunjungmuli Villages. This study aimed to describe the level of knowledge among female adolescents regarding the risks of adolescent pregnancy at MA Mamba'ul Ulum Tunjungmuli. Specifically, the study aimed to describe respondents' characteristics based on age, grade level, history of receiving information about adolescent pregnancy, and sources of information, as well as to describe female adolescents' knowledge regarding the risks of adolescent pregnancy based on their level of knowledge. The findings are expected to contribute to the development of the author's academic and research competencies, provide additional references for educational institutions in developing knowledge of adolescent reproductive health, and increase public knowledge and awareness regarding the prevention of adolescent pregnancy.

B. METHOD

This study used a quantitative descriptive method with a cross-sectional approach. Quantitative descriptive research aims to describe, analyze, and explain phenomena based on numerical data as they are (Nurhabiba et al., 2023), while the cross-sectional approach is conducted through observation or data collection at a specific point in time (Nyoman et al., 2023). The research was conducted at MA

Mamba'ul Ulum Tunjungmuli, Karangmoncol District, Purbalingga Regency, Central Java, on May 26, 2026. The research location is a place of observation selected to capture the phenomenon that is the focus of the study (Gaspar, 2023).

The study population consisted of all female students in grades 10 and 11 at MA Mamba'ul Ulum who were more than 14 years old and less than 20 years old. The sampling technique used was total sampling, in which all members of the population were included as research samples (Rahayu et al., 2021). The sample consisted of female students who were active students in grades 10 and 11, aged over 14 and under 20 years, willing to participate as respondents, and present during data collection. Students who were not active, male students, students in grade 12, female students who were ill or absent, and female students who refused to participate were not included in the sample (Rizal et al., 2024).

The study used a single variable, namely the level of female adolescents' knowledge regarding the risks of adolescent pregnancy. The operational definition of a variable is the process of transforming a concept into characteristics that can be observed and tested (Chasanah et al., 2025). The research instrument was a questionnaire consisting of 15 questions using the Guttman scale, in which a correct answer was assigned a score of 1 and an incorrect answer was assigned a score of 0 (Asih et al., 2023). The questionnaire was adapted from Lestari (2016) and was declared valid with *r*-calculated values ranging from 0.487 to 0.821 and reliable with a Cronbach's Alpha value of 0.75. Knowledge scores were calculated using the formula proposed by Arikunto (2021), with the categories of good (80–100%), sufficient (60–79%), and poor (<60%).

The data used in this study were quantitative data obtained through questionnaires (Damanik et al 2025). Data collection was conducted by obtaining research permission, coordinating with the school, explaining the objectives and procedures of the study, providing informed consent forms and questionnaires to the respondents, and then collecting and checking the completeness of the completed questionnaires (Jailani, 2023).

Data analysis was performed descriptively using univariate analysis. Descriptive analysis is used to present data according to the conditions obtained without analyzing the causes of a phenomenon and does not require hypotheses or statistical tests (Dewi, 2023). Univariate analysis was used to describe the characteristics of respondents and the level of female adolescents' knowledge through frequency distributions and percentages (Asmila et al., 2025).

Research ethics were applied by considering the principles of respect for human dignity, privacy and confidentiality, justice and openness, as well as benefits and potential harm (Notoatmodjo 2018 dalam Kharunia 2024). Respondents were provided with information about the study and had the right to withdraw without coercion. Respondents' identities were protected by using initials, while all data were used solely for research purposes.

C. RESULTS AND DISCUSSION

1. Respondent Characteristics

The results of the study regarding the characteristics of respondents are presented in the following table and narrative.

Table 1. Frequency Distribution of Respondent Characteristics

Respondent Characteristics	Frequency	Percentage
Age		
15 years	4	8.51%
16 years	25	53.19%
17 years	18	38.30%
Total	47	100%
Grade		
X	25	53.19%
XI	22	46.81%
Total	47	100%
History of Receiving Information about Adolescent Pregnancy		
Yes	47	100%
No	0	0%
Total	47	100%
Source of Information		
Electronic media	36	65.46%
Health workers	4	7.27%
School	15	27.27%
Others	0	0%
Total	47	100%

The majority of respondents were aged 15–17 years, which is categorized as middle adolescence (WHO, 2025.). Middle adolescence is a period in which abstract, logical, and critical thinking abilities develop more optimally, allowing adolescents to understand the information they receive and not merely accept information as it is (Irola, 2024). This is in line with Peters et al., (2022), who stated that adolescence is an important phase in the development of the prefrontal cortex, which plays a role in improving higher-order cognitive functions, such as logical reasoning, decision-making, and information processing. Therefore, adolescents have a better ability to understand and process information into knowledge.

The majority of respondents in this study were female students in grade X (54.35%). It should be noted that since 2025, grade X students have implemented the Merdeka Curriculum, in which the specialization system of Natural Sciences, Social Sciences, and Languages is no longer applied. Students are given the flexibility to select subjects according to their interests, talents, abilities, and plans for further education (Putra, 2024).

The Merdeka Curriculum does not specifically discuss adolescent pregnancy. However, students obtain knowledge related to this topic through the Natural

Sciences subject, particularly Biology, in the human reproductive system material. This material covers reproductive concepts such as fertilization, pregnancy, childbirth, and lactation, thereby indirectly providing a basic understanding of pregnancy (Tenzer et al., 2022).

This curriculum provides students with opportunities to learn broader material and is not limited to specific aspects as in the previous curriculum. This condition allows students to acquire broader knowledge. This is supported by research conducted by Lestari et al., (2025), which stated that the implementation of the Merdeka Curriculum can significantly improve student learning outcomes, thereby contributing to increased understanding and mastery of learning materials.

All respondents in this study had previously received information about adolescent pregnancy. The information obtained by individuals is one of the important factors contributing to the formation and improvement of knowledge. The more frequently a person is exposed to information about a particular topic, the greater the possibility that the individual will have better knowledge related to that topic. This statement is in line with the findings of Lestari et al., (2025), which showed that sources of information are associated with a person's level of knowledge. In addition, Notoatmodjo (2018) stated that information is one of the factors influencing a person's level of knowledge because the information received can broaden one's insight and shape an individual's understanding of an object.

The results showed that the majority of respondents obtained information from electronic media, totaling 36 respondents (65.46%). Electronic media, particularly social media, is one of the means that is easily accessible to the public and plays an important role in disseminating health information (Jihada et al., 2025).

The development of digital technology enables people to access health information more quickly and easily through various social media platforms. This condition is utilized by many health workers and health institutions as a medium for providing education, health promotion, and disseminating health information to the wider community (Wahyuni et al., 2021). Therefore, the use of electronic media as a source of information contributes to increasing a person's knowledge regarding health information.

2. Level of Female Adolescents' Knowledge Regarding the Risks of Adolescent Pregnancy

The results regarding the level of female adolescents' knowledge about the risks of adolescent pregnancy are presented in the following table and narrative.

Table 2. Frequency Distribution of Female Adolescents' Knowledge Level Regarding the Risks of Adolescent Pregnancy

Knowledge Level Category	Frequency	Percentage
Good	24	51.06%
Sufficient	19	40.43%
Poor	4	8.51%
Total	47	100%

The analysis of the table shows that the majority of female adolescents had a good level of knowledge regarding the risks of adolescent pregnancy, consisting of 24 respondents (51.06%), while the minority had a poor level of knowledge, consisting of 4 respondents (8.51%). Knowledge is an understanding or information related to a particular topic obtained through experience or learning (Swarjana., 2022). The measurement of knowledge levels is divided into three categories: good (80–100%), sufficient (60–79%), and poor (<60%).

The research began by gathering all respondents in one room. The researcher then introduced themselves and explained the purpose of the study and the procedures for completing the questionnaire. Respondents who agreed to participate were asked to complete the questionnaire to measure their level of knowledge. Subsequently, the researcher provided health education using PowerPoint and leaflets, followed by a question-and-answer session. The activity concluded with giving prizes to active respondents and taking group photographs.

Based on the data in Table 4.1, the majority of respondents, namely 24 respondents (51.06%), had a good level of knowledge, while 4 respondents (8.51%) had a poor level of knowledge. The variable of knowledge regarding the prevention of adolescent pregnancy was measured using 15 questions about adolescent pregnancy.

The respondents in this study were students of a Madrasah Aliyah (MA), which has an educational level equivalent to senior high school. In the current digital era, most senior high school students have electronic devices that facilitate access to information from various sources, such as the internet, social media, and digital educational platforms. Easy access to information through the internet, social media, and various digital platforms enables adolescents to obtain health information more quickly and extensively. This is supported by research conducted by Agustin et al., (2026), which showed that access to reproductive health information through social media is associated with the level of knowledge among female adolescents.

Research by Saputri et al., (2025) also found that ease of access to information plays a role in improving adolescents' reproductive health knowledge and behavior. Thus, increasingly broad access to information in the digital era is one of the factors contributing to increased adolescent knowledge regarding various health issues, including adolescent pregnancy. In addition, information obtained through educational environments and digital media can broaden students' knowledge and help them understand health-related materials better (Pombaile et al., 2026).

Nevertheless, this study still found 4 respondents (8.51%) with a poor level of knowledge, despite being adolescents living in the digital era with relatively easy access to information. This may be because a person's level of knowledge is influenced not only by educational level but also by other factors such as age, experience, and exposure to information. The more information a person obtains from various sources, the greater the opportunity to have better knowledge (Hidayatullah et al., 2025).

D. CONCLUSION

Based on the results of the study, the majority of respondents were 16 years old, consisting of 25 respondents (53.19%), and were in grade X, consisting of 25 respondents (53.19%). All respondents, totaling 47 respondents (100%), had previously received information about adolescent pregnancy, with the most common source of information being electronic media, reported by 36 respondents (65.46%). The level of female adolescents' knowledge regarding the risks of adolescent pregnancy was predominantly in the good category, with 24 respondents (51.06%).

This study has limitations because it only described the level of knowledge, had a limited number and characteristics of respondents, and the implementation of questionnaire completion was not fully optimal. Future researchers are recommended to conduct studies with a broader range of respondents, use *pre-test* and *post-test* designs, and involve health workers and schools in providing regular health education regarding the risks of adolescent pregnancy.

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