

# The Association between Students' Knowledge of Menstruation and Their Preparedness for Menarche in Grades III–V at SDN 158 Sari Babakan

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<https://doi.org/10.58439/jhrt.v4i1.366><https://e-journal.saku.co.id/index.php/JHRT>Tri Ardayani<sup>1\*</sup>, Stephanie Melia<sup>2</sup>, Kinanti Paramesti<sup>3</sup>

## Abstract

**Background:** A school-age child's overall physical, mental, and social well-being in relation to the reproductive system, functions, and processes is referred to as reproductive health. Menarche is one stage at which school-age children mature. School-age children typically experience their first menstruation between the ages of 12 and 14. It can happen at any age in Indonesia, ranging from 10 to 16. When school-age children are nine years of age or older, they go through a physical and emotional transition known as menarche. As a result, knowledge about menarche and menstruation is necessary, as is readiness. School-age children are ill-prepared for puberty, which will negatively affect their experiences in the future.

**The purpose** of this study is to ascertain how menstruation awareness and menarche preparedness relate to each other among female students in the third through fifth grades at SDN 158 Babakan Sari.

**Research Method:** This study employed a cross-sectional, quantitative, correlational methodology. The research was carried out between July 18 and July 19, 2024. Using a stratified sampling technique, 127 female pupils in the third through fifth grades made up the study's population. A questionnaire with chi-square analysis ( $\alpha < 0.005$ ) was utilized for data collection.

**Results of the study** showed that 60 female students (47.2%) did not know enough about menstruation. 78 individuals, or half of the sample, were unprepared for menarche.

**Conclusion:** Among female students in the third through fifth grades at SDN 158 Babakan Sari, there is a correlation between menstrual knowledge and menarche preparedness.

Keywords: Knowledge, menstruation, readiness, menarche

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## Introduction

School-age children's overall physical, mental, and social well-being in relation to the reproductive system, functions, and processes is referred to as reproductive health (Harnani, 2019). Menarche is one aspect of school-age children's development toward adulthood. The process of vaginal bleeding that

results from a woman's body's natural monthly cycle is known as menarche, or first menstruation (Aidina, 2022). School-age children typically experience their first menstruation between the ages of 12 and 14. It can happen at any age in Indonesia, ranging from 10 to 16 (Dwi et al., 2019).

The World Health Organization (WHO) (2023) estimates that 1.2 billion school-age children make up 18% of the world's population. There are 4,314.8 million school-age children in West Java Province between the ages of 9 and 19, according to data from the Central Statistics Agency (2022). In Bandung City, there are 190,043 school-age girls and 381,985 school-age children between the ages of 9 and 19. The WHO estimates that roughly one-fifth of school-age children worldwide, aged 9 to 19, have gone through menstruation (menarche). The average age of menarche in Indonesia is 13 years old (20.0%), according to data from the 2023 Basic Health Research (Riskesdas) on the population of school-age children who had experienced menarche. Menarche can happen later, up to age 20, or earlier, at less than 9 years old. In contrast, the age group with the highest menarche rates in West Java province was 13–14 years old (38.1%) and < 13 years old (23%) (Sholicha, 2020).

As school-age children get closer to adulthood, the first menstruation, or menarche, marks the start of primary and secondary changes as well as an indication of reproductive maturity. Changes in mood, boredom, anger, and melancholy brought on by the release of certain hormones are common indicators and symptoms. Adolescents with this illness may also experience disorientation, anxiety, and discomfort (Dwi et al., 2019).

When school-age children are nine years of age and older, they begin to go through a physical and emotional transition known as menarche. As a result, readiness and knowledge of menarche and menstrual circumstances are required. School-age children who are not prepared for puberty will endure

trauma in the future. Their psychological well-being will be at risk in the future, particularly for kids who reach adulthood earlier. School-age girls are said to experience a range of emotions, including fear, anxiety, and joy, as a result of the psychological influence. Children of school age may feel unprepared to deal with the changes their body are going through. Because menstruation is the primary factor supporting their readiness for their first menstruation (menarche), school-age children require education about menstruation (Riyani & Mintarsih, 2023). Menstruation is one of the ways a school-age child gets ready to transition into early adulthood. For children of school age, the menstrual cycle is a normal and natural physiological function. But a lot of girls don't know anything about menstruation. According to Anna's research, school-age children frequently lack understanding about menstruation, which is linked to their preparedness for menarche (Anna et al., 2018).

When an adolescent experiences their first menstruation, it is a sign that they are ready to reach physical maturity. For school-age girls, this menarche-ready stage necessitates social, psychological, and bodily changes (Riyani & Mintarsih, 2023). When school-age girls are prepared for menarche, they are prepared to react and behave appropriately. In this context, attitude refers to a woman's readiness to embrace the emotional and physical changes that come with menstruation. In terms of conduct, a female is capable of handling issues that may develop during menstruation, such as menstrual pain, and is prepared to handle menstruation on their own, including using sanitary napkins. According to Yuningsih and Mujiyanti (2023), both are interconnected and crucial in preparing school-age girls to face menarche with ease and confidence. Understanding the elements that affect school-age children's health and wellbeing during menarche can be achieved by looking at menarche readiness in terms of attitudes and behavior.

A crucial component of menarche preparation is knowledge. Students in elementary school, ages 9 to 12, including young children, are readily exposed to a variety of information sources. School-age children's conceptions of menarche will be influenced by the information they learn about menstruation. Their preparedness for menarche will be influenced if these perceptions are favorable. Additionally, firsthand experience and other people's experiences can teach us about menarche. The outcome of "knowing," which happens when a person detects a certain item, is knowledge. Lack of knowledge of menarche requires exposure to information to prepare for menarche, and the shame that follows can result in misconceptions about menstruation, leaving school-age children unprepared for it (Nopia, 2020).

In fifth and sixth grade students at SDN 1 Denpina, North Toraja Regency, Wahyuni's (2019) study on menarche knowledge and teenage girls' preparedness for their first menstruation revealed a significant correlation between menstruation knowledge and preparedness for early menstruation. Nurmawati and Erawantini's (2019) study examined the connection between elementary school pupils' understanding of menstruation and their preparedness for menarche. The study's findings demonstrated a connection between elementary school students' understanding of menstruation and their preparedness for menarche.

Four out of ten female students were ignorant about menarche and did not know what to do when it happened, according to a preliminary study done by academics. Knowing that menarche was unavoidable for all girls, six female students said they were prepared to deal with it. Girls' activities and conversations on reproduction, including menstruation, had already taken place at the school. The instructor claimed that since the fourth grade, the school had taught them specific regulations governed by Sharia law (baligh). They felt

unprepared even though there had been conversations about reproduction in the fourth grade since their families, particularly their moms, had not openly discussed their personal experiences with their first menstruation because of their hectic job schedules. The third-grade female students, on the other hand, claimed that their families, particularly their mothers, had not explained what menstruation was or how to deal with it, thus they were unprepared because they had not heard conversations about reproduction, particularly menstruation. A female student in the fifth grade claimed that she was prepared since she had already experienced menarche and knew how to handle it when her period came every month.

### **Research Methods**

Menstrual knowledge is the independent variable, readiness to face menarche is the dependent variable, the population consists of 186 female students, and the sample size is 127. The quantitative research design employs correlation analysis through a cross-sectional approach. Female students from SDN 158 Babakan Sari who are prepared to participate as respondents, female students in grades III–V who have not experienced menarche, female students who agree to participate as respondents and have completed the informed consent form directly, and female students who are able to read and speak fluently are the sample criteria. The sampling technique is stratified sampling. The study employed questionnaires as its instruments, including a 27-item knowledge questionnaire and a There were ten items on the preparedness questionnaire. The reliability results were deemed reliable if the Cronbach's Alpha value was greater than 0.70. The validity test was carried out at SDN Jongkang with the same characteristics as the respondents ( $r_{\text{count}} > r_{\text{table}} 0.361$ ). The reliability of the research questionnaire was demonstrated by the Cronbach's Alpha coefficient of  $0.854 >$

0.70. Data processing techniques began with the editing, coding, data entering, and data cleaning procedures, whereas data collection strategies began with the planning, execution, and final stages. univariate examination of each variable's percentage (%) and frequency distribution, chi square statistical test for bivariate analysis. Research ethics permit No. 050 / KEPK / IKI / VI / 2024 has been received for this study. The study was carried out from March to August 2024 in SDN 158 Babakan Sari Bandung.

## Research Results

### 1. Menstrual Knowledge

Table 1. Level of Menstrual Knowledge among Students in Grades III-V at SDN 158 Babakan Sari

Knowledge	Frequency	Percentage
Good	19	15,0
Sufficient	48	37,8
Poor	60	47,2
Total	127	100

Based on table 4.2, it shows that almost half of the respondents had insufficient knowledge regarding menstruation, namely 60 people (47.2%).

### 2. Readiness for Menarche

Table 2. Distribution of Readiness for Menarche among Students in Grades III-V at SDN 158 Babakan Sari

Readiness	Frequency	Percentage
Ready	43	38,6
Not Ready	84	61,4
Total	127	100

Based on table 2, it shows that almost all respondents were not ready to face menarche, namely 84 people (61.4%).

3. Bivariate data analysis using chi-square test yields the following results:

Table 3. Distribution of Readiness for Menarche in Grades III-V at SDN 158 Babakan Sari

Menstrual Knowledge	Readiness to Face				Total		P Value
	Ready		Not Ready		F	%	
	F	%	F	%	F	%	
<b>Good</b>	13	68,4	6	31,6	19	100	0,000
<b>Sufficient</b>	27	56,3	21	31,7	48	100	
<b>Poor</b>	3	5,0	57	39,7	60	100	
<b>Total</b>	43	33,9	84	66,1	127	00	

The degree of knowledge and preparedness for menarche are related, as this table demonstrates. Students who don't know much about menstruation are poorly equipped to deal with menarche. Table 3 indicates that 19 female students have good knowledge, and 13 of them (68.4%) are prepared for menarche. In the meantime, 57 students (39.7) out of the 60 female students with less knowledge are not prepared for menarche. Menstrual knowledge and preparedness to face menarche in grades III–V at SDN 158 Babakan Sari are related, according to the results of the analysis using the chi-square test, which yielded a P-Value = 0.000.

## Discussion

### 1. Age

According to the findings, 40 respondents (31.5%) were between the ages of 9 and 11, but only 11 respondents (8.7%) were 8 years old, and 36 female students (28.3%) were 9 years old. These findings are consistent with earlier studies by Kusnaningsih (2023), which discovered that the typical menarche age ranged from 6 to 8 years old.

Adolescent girls' ability to reproduce is correlated with their age. One sign that a female is going through a transformation, such as when she reaches puberty,

is her age. One developmental stage that is unique to this time of life is the passage from childhood to adolescent

According to research by Meizela (2019), the number of women who are unprepared for their periods declines with age. This implies that psychological growth, which is linked to mental preparation for puberty, is tied to physical development. Additionally, this result is consistent with a study by Mardilah (2018) that looked at factors impacting menarche knowledge. In the context of menarche, this study discovered no correlation between age and menstruation knowledge.

According to the experts, teenage girls' preparedness for menarche is influenced by their age since it affects their degree of knowledge. Girls' bodies have generally evolved better at a more mature age, notably in terms of hormonal and reproductive development. Additionally, girls usually learn more about menstruation from friends, family, and school as they become older. This knowledge is crucial since it lessens the possibility that menarche may be unexpected or frightening.

## **2. Menstrual Knowledge**

According to the research findings, 48 students (37.8%) had appropriate knowledge, however nearly half of the female students (60 students) had insufficient understanding. Just 19 pupils out of the respondents had sufficient expertise.

The capacity to remember names, words, inspirations, formulas, and other things is known as knowledge (Alghifari, 2023). Knowledge arises from awareness and is determined by how each item is perceived. Sight, hearing, taste, smell, and touch all contribute to the perception of knowledge (Pakhpahan et al., 2021). This study supports the findings of Annisyah (2022),

who discovered that the majority of female students (28 pupils) lacked sufficient understanding about menstruation.

Researchers claim that information can affect behavior since teenage girls who don't know much about menstruation are less psychologically and behaviorally ready for menarche. Low-knowledge adolescent females often struggle since they don't know what to do when they approach menarche. Adolescent girls who are unprepared for menarche may exhibit excessive anxiety, fear, and disturbed sentiments

### **3. Readiness for Menarche**

The majority of respondents (78 pupils) were unprepared for menarche, according to the study's findings. In the meantime, 48 female pupils (38.6%) were prepared for menarche. These findings are consistent with a prior study conducted by Sari (2021) with 90 participants, which discovered that 58.9% of female students were not ready for menarche. Nearly all 23 female students (71.9%) were unprepared for menarche, according to Meylina's (2019) research. This resulted from ignorance of menstruation.

According to Purnamasari's (2020) research, female pupils at SDN 1 Candi Rejo Ungaran appeared unprepared for menarche, which they would both psychologically and physically. They were also finding it difficult to get ready for the profound mental and physical changes that adolescent girls would experience after their first menstruation.

Over half of the female students (56.8%) in Annisyah's (2022) study of 40 respondents were unprepared for menarche. Feelings of being unprepared for their first period are exacerbated by a lack of sexuality education at home and at school. More than half of the female students were unprepared for menarche, according to a related study by Rumiyanidini (2021). According to

this study, menarche is strongly influenced by socioeconomic level. The lack of information available to adolescents from low-income families can make them less prepared for menarche.

#### **4. The Relationship Between Menstrual Knowledge and Menarche Readiness in Third-Value Female Students at SDN 158 Babakan Sari**

60 of the 127 respondents with inadequate knowledge were unprepared for menarche, according to the study's results, which were examined using chi-square statistics. With a P-Value of 0.000, the chi-square statistic showed a strong correlation between menarche preparedness and menstruation knowledge.

This is because the thinking and information-absorbing skills of teenage female students have not developed. A person is more unprepared for their first menstruation if they have less knowledge. The findings of Sari's (2021) study, which discovered that 53 (58.9%) of 90 respondents were unprepared for menarche, are also consistent with this study.

Female students' perceptions of their first period (menarche) will be influenced by the information they learn about menstruation. Female students' readiness to face menarche will be influenced if they have a positive perception of their first period. The commencement of regular menstruation between the ages of 9 and 16 is known as menarche (Anwar and Febrianty, 2017).

According to research by Yazaia (2021), young girls who don't know much about menstruation frequently feel anxious and ashamed since they aren't ready for their first menarche. Girls who have not yet reached menarche nevertheless require instruction about menstruation; otherwise, they will find it difficult to manage.

According to Leliana's (2020) research on the relationship between knowledge and preparedness for menarche, teenage girls who lack knowledge and information about menstruation may have extremely unpleasant experiences, including feelings of panic, fear, trauma, and shame (Ayu Putu, 2017).

## **Conclusion**

The following are the conclusions:

1. Sixty respondents, or nearly half of the sample, lacked sufficient understanding about menstruation. Just 19 responders, or a small percentage, possessed strong expertise.
2. Of the 78 responders, half were unprepared for menarche. In the meantime, 48 female pupils (38.6%) were prepared for menarche.
3. Among female students in the third through fifth grades at SDN 158 Babakan Sari, there is a connection between menarche preparation and menstrual knowledge

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