

# Factors Associated With Reproductive Health Knowledge Among Vocational School Students In Padang

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ARTICLE INFO	ABSTRACT
<p><b>ORCHID ID</b> Author 1: <a href="https://orcid.org/0009-0003-8346-1338">https://orcid.org/0009-0003-8346-1338</a> Author 2: <a href="https://orcid.org/0009-0009-0644-6840">https://orcid.org/0009-0009-0644-6840</a> Author 3: <a href="https://orcid.org/0009-0001-0191-9006">https://orcid.org/0009-0001-0191-9006</a> Author 4: <a href="https://orcid.org/0000-0002-6616-1670">https://orcid.org/0000-0002-6616-1670</a></p>	<p>The Ministry of Health of the Republic of Indonesia in 2022 reported that 35.3 persen of women and 31.2 persen of men aged 15-19 have limited or no awareness of reproductive health. The rise of vocational students who are often caught in raids with several cases including sexual deviations is a fatal impact of the lack of reproductive health knowledge on adolescence. The purpose of this study is to find out the factors associated with reproductive health knowledge among vocational students in Padang City. A cross-sectional quantitative research was conducted in July-September 2023 among 538 students at SMK in Padang, with a sample of 85 people selected using stratified random sampling technique. Data was collected through a questionnaire with an interview method, and univariate and bivariate analysis was performed using the chi-square test. The study found a significant relationship between parental role (p equal to 0.037), peer influence (p equal to 0.018), and media influence (p equal to 0.018) with reproductive health knowledge in vocational students. It is recommended that students seek information from trusted sources related to reproductive health, to ensure accurate and useful understanding.</p>
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## 1. Introduction

Reproductive health is synonymous with sexuality as it involves various aspects, including the biological dimension, which pertains to reproductive organs, maintaining cleanliness, and ensuring their health. Reproductive health, like general health, is a fundamental right for every human being. In Indonesia, the vulnerable group to the neglect of reproductive health rights is adolescents, considering that this is the age when reproductive organs are susceptible to reproductive tract infections, pregnancies, and substance use (Meilan et al., 2019).

As of 2022, the World Health Organization (WHO) states that the global adolescent population amounts to 1.2 billion or 18% of the world's total population. The Asia-Pacific region constitutes 60% of the world's population, with half of it being adolescents aged 10-19 (WHO, 2022). According to the 2022 census data from the Central Statistics Agency, adolescents aged 15-24 in Indonesia number 68.82 million, comprising 24% of the total population. More than half of Indonesian adolescents reside in Java (54.79%), Sumatra (22.37%), Sulawesi (7.74%), Kalimantan (6.35%), and other islands (8.75%). Based on BPS data, the population in West Sumatra aged 15-19 is 481,780, accounting for 14.93% of the total

population, and in Padang City, those aged 15-19 constitute 21.72% of the total population (Badan Pusat Statistik, 2023).

Understanding reproductive health is crucial for adolescents. A lack of knowledge about reproductive health can lead to issues affecting their reproductive well-being, such as sexually transmitted diseases and infections (Aryani et al., 2022). In 2022, the Indonesian Ministry of Health reported that 35.3% of young women and 31.2% of young men aged 15 to 19 have little or no awareness of reproductive health. Many are only aware that women can become pregnant after engaging in sexual activity. Furthermore, only 9.9% of adolescent girls and 10.6% of adolescent boys have comprehensive awareness of HIV/AIDS (Kementerian Kesehatan RI, 2022). The fatal consequences of a lack of reproductive health knowledge in adolescents include the potential for deviant sexual behavior and sexually transmitted diseases. Approximately 15 million adolescents aged 15-19 give birth each year, with 4 million resorting to abortion, and nearly 100 million getting infected with sexually transmitted diseases. Indonesia is one of the countries that still considers sex a taboo subject. The country also faces a high abortion rate, ranging from 2.3 million to 2.6 million cases annually, with 30% involving adolescents. Consequently, various priority issues in adolescent reproductive health emerge, such as unwanted pregnancies, abortions, premenstrual syndrome problems, including HIV/AIDS infections (KPAI, 2021).

Good knowledge of reproductive health can transform attitudes and behaviors related to health in adolescents. Knowledge can be influenced by the environment, whether within the family or social circles, as a conducive and supportive environment contrasts with a detrimental one, impacting an individual's thought process (Notoatmodjo, 2018). Therefore, if adolescents have a positive and supportive environment within the family or social circles that understands and supports reproductive health issues, it will influence their thinking and behavior regarding reproductive health. The environment can originate from both the family and social circles. Research conducted by Anjani & Puspita (2019) titled "Parental Communication and Adolescents' Knowledge of Adolescent Reproductive Health" indicates a relationship between parental communication and adolescents' knowledge of reproductive health ( $p=0.000$ ). Additionally, a study by Avianty (2020) titled "Factors Related to the Level of Knowledge of Adolescent Girls Regarding Genital Organ Cleanliness" found a correlation between peer support and knowledge of genital organ cleanliness with a  $p$ -value of 0.030.

Media also plays a significant role in influencing an individual's knowledge. The impact of global information (media exposure), which is increasingly accessible, often prompts adolescents to adopt unhealthy habits such as smoking, drug and illegal injection abuse, unprotected sex, and other deviant behaviors. Cumulatively, these habits can accelerate the onset of early sexual activity and lead them towards risky sexual behaviors. This is because most adolescents lack accurate knowledge about reproductive and sexual health, along with limited access to information and reproductive health services, including contraception (Kementerian Kesehatan RI, 2022). Research conducted by Thaha & Yani (2021) in a study titled "Factors Influencing Adolescents' Knowledge of Reproductive Health" indicates a significant influence between media information and adolescents' knowledge of reproductive health with a  $p$ -value of 0.002. In 2022 at Padang City, based on data obtained from social media and mass media reveal that adolescents are often involved in raids due to various incidents, including dating in dark places, public diseases (unprotected sex in boarding houses or budget

hotels), and being in nightclubs. According to the data, on average, those frequently caught in enforcement actions are adolescents from private high schools and vocational schools.

Based on an initial survey conducted on 15 students from one of the vocational schools with the highest student population in Padang City, it was found that 53.3% of students are unaware of a woman's fertile period, while 46.7% are unaware of the symptoms of sexually transmitted infections. Additionally, 20.0% of students admitted to engaging in sexual relations with a partner. The initial survey results also revealed that 60.0% stated that they obtain most of their information about reproductive health from social media. The objective of this research is to identify the factors related to reproductive health knowledge among vocational school students in Padang City.

## 2. Method

This study was a survey with a cross-sectional design and quantitative method. The dependent variable was reproductive health knowledge, while the independent variables were parental roles, peer influence, and media influence. This study was conducted of Vocational School student in Padang City from July to September 2023 who met the criteria to represent the entire population. The research population comprised 538 students at Vocational School in Padang. A sample of 85 students was selected using stratified random sampling from each class. The criteria for selecting respondents determined by the researcher were as follows: active status as a student at a Vocational High School and willing to participate. Primary data were collected through questionnaires with interview methods. The questionnaire was obtained from multiple sources that had been tested for validity and reliability. The Cronbach's alpha values were 0.840 for knowledge of reproductive health, 0.678 for the role of parents, 0.613 for peer influence, and 0.871 for media influence. The data was then analyzed using the chi-square test. Data analysis, including univariate and bivariate analyses, was conducted using the chi-square test.

## 3. Result and Discussion

The research collected data from 85 respondents and classified them by gender and age to obtain their characteristics. The characteristics of respondents can be seen in table 1.

**Table 1. Distribution of Respondent Characteristics**

<b>Gender</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Male	37	43,5
Female	48	56,5
Total	85	100
<b>Age</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
15 Years	9	10,6
16 Years	40	47,1
17 Years	34	40,0
18 Years	2	2,3
Total	85	100

The respondents in this study were mostly female, 56.5%. Majority of the respondents were 16 years old (47.1%), while the least was 18 years old (2.3%). Table 2 displays the results of the frequency distribution for each research variable

**Table 2. Frequency Distribution of Reproductive Health Knowledge,**

**Parental Role, Peer Influence, and Media Influence**

<b>Characteristic</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
Reproductive Health Knowledge		
Low	46	54.1
High	39	45.9
Parental Role		
Poor	49	57.6
Good	36	42.4
Peer Influence		
Poor	43	50.6
Good	42	49.4
Media Influence		
Poor	31	36.5
Good	54	63.5
<b>Total</b>	<b>85</b>	<b>100</b>

More than half of the respondents (54.1%) have low reproductive health knowledge. This finding aligns with the study by Aryani et al., (2022) titled "Lack of Adolescent Knowledge about Reproductive Health," where 63.8% of students were found to have poor knowledge about reproductive health. Knowledge about reproductive health is crucial for students because, as adolescents, they need accurate information about the reproductive process and its influencing factors. Correct information enables students to develop responsible attitudes and behaviors, empowering them to make informed decisions in addressing reproductive health issues (Meilan et al., 2019).

Based on this research, 57.6% of students stated that parental roles are poor. This result is consistent with the study by Anjani & Puspita (2019), stating that 61.2% of parents do not have a positive role in their children's reproductive health. Education received from the family, especially parents, plays a crucial role in shaping students' understanding of reproductive health. The role or support from parents can be manifested by providing information, values, or perspectives on reproductive health and sexuality issues (Wirenviona & Riris, 2020). Considering that parents are the starting point in a child's personality development, the parental role is highly significant in supporting and monitoring children in obtaining information about reproductive health.

The research results indicate that more than half of the students (50.6%) have a negative peer influence. This finding is consistent with the study by Avianty (2020), which states that 53.3% of peer interactions regarding reproductive health are poor. Peer influence has a significant impact on students because peers serve as a means of exchanging information for adolescents. This is because students tend to feel comfortable discussing personal issues with peers who they perceive to have similar knowledge (Meilan et al., 2019). Information shared by peers can influence adolescents' perceptions and attitudes, both positively and negatively. Additionally, peers serve as role models for adolescent behavior.

Based on Table 2, more than half of the students (63.5%) have positive media influence. This result aligns with the study by Thaha & Yani (2021), where it is revealed that 56.5% of students express that the media has a positive impact on reproductive health information. Media, as a communication tool, enables the delivery of messages and information that can shape or influence an individual's knowledge, attitudes, and behavior. According to

Wirenviona & Riris (2020), information obtained from the media affects an individual's cognitive aspects. Media can provide accurate information about reproductive health; conversely, it also has the potential to influence individuals to engage in deviant sexual behaviors. Table 3 explains the results of the research that has been conducted on the variables of parental role, peer influence, and media influence with reproductive health knowledge.

**Table 3. The Relationship between Parental Role, Peer Influence, Media Influence with Reproductive Health Knowledge in Vocational School Students**

No	Variabel	Reproductive Health Knowledge				Total		PR & CI	P-value
		Low		High		n	%		
		f	%	f	%				
1	Parental Role								
	Poor	29	59.2	20	40.8	49	100	1.946 (1.201-3.152)	0,037
	Good	17	47.2	19	52.8	36	100		
2	Peer Influence								
	Poor	30	69.8	13	30.2	43	100	2.821 (1.837-5.509)	0,018
	Good	16	38.1	26	61.9	42	100		
3	Media Influence								
	Poor	17	54,8	14	45.2	31	100	4.889 (1.393-7.159)	0,014
	Good	19	35.2	35	64.8	54	100		

This study found that respondents with poor parental roles had a higher proportion (59.2%) of low reproductive health knowledge compared to those with good parental roles (47.2%). Based on the results of the chi-square statistical test, a p-value of 0.037 was obtained, indicating a relationship between parental roles and reproductive health knowledge in vocational school students. This aligns with the study by Nurjayanti (2018), which states that there is a relationship between parental support and adolescent knowledge about reproductive health with a p-value of 0.004.

Parents are the primary source of information for a child, and it is crucial for parents not to feel ashamed to share reproductive health information with their children. However, parents need to know the appropriate time to educate their children about reproductive health. This is because accurate and reliable information about reproductive health is essential for adolescents. The role of parents in enhancing adolescent knowledge can be improved by providing early reproductive health education and encouraging positive communication about reproductive health. This way, effective information transfer from parents to children can occur.

Based on Table 3, the proportion of respondents with low reproductive health knowledge is found to be highest among those with poor peer influence (69.8%) compared to those with good peer influence (38.1%). Based on the results of the chi-square statistical test, a p-value of 0.018 was obtained, indicating a relationship between peer influence and reproductive health knowledge in vocational school students. This finding is consistent with the study by Avianty (2020), which found a significant relationship between peer support and knowledge about reproductive hygiene in students (p-value 0.030). Additionally, according to Meilan et al., (2019), peer education can enhance adolescents' knowledge and attitudes.

Most adolescents feel anxious about sharing their stories with their parents, especially regarding sexual issues. Therefore, adolescents prefer to seek information on their own through their peers. Adolescents are believed to have a higher level of trust in their peers due to a tendency not to disclose secrets, openness in discussing issues related to the opposite sex, and the ability to solve the problems they face. However, interactions with peers can influence knowledge, impacting behavior positively or negatively. Peer influence can have a positive impact on students' reproductive health knowledge if it creates a positive interaction and adheres to social norms, sharing positive information related to reproductive health. Conversely, negative effects may arise if peers create unfavorable interactions, leading to social violations such as premarital sexual relationships.

This study found that respondents with low reproductive health knowledge had the highest proportion (54.8%) with low reproductive health knowledge compared to those with good media influence (35.2%). Based on the results of the chi-square statistical test, a p-value of 0.014 was obtained, indicating a relationship between media influence and reproductive health knowledge in vocational school students. Reproductive Health Knowledge in Students. This finding aligns with the research conducted by Sidik (2015), which states a relationship between information media and the level of reproductive health knowledge among students (p-value = 0.001). Additionally, a descriptive study by Amelia (2020) mentions that social media significantly impacts enhancing reproductive health understanding, particularly among women.

Media, whether print or electronic, serves as another source of reproductive health information for students. It contributes as an information source to raise awareness about reproductive health. The use of media in the context of reproductive health poses a dilemma. One advantage is that media can provide precise and accurate information about reproductive health. On the other hand, many adolescents misuse media, including inappropriate exposure to pornographic images and videos. Intensive media utilization can enhance students' knowledge and help them understand the importance of reproductive health knowledge among adolescents better. The role of media needs to be strengthened to broaden adolescents' knowledge of reproductive health. Easily accessible media for adolescents provides an opportunity to disseminate reproductive health information quickly and accurately.

#### 4. Conclusion

Based on the research findings, it can be concluded that more than half of the students have low reproductive health knowledge, more than half of the students state that the role of parents is less than satisfactory, and more than half of the students have negative influences from peers and media. The research also concludes that there is a significant relationship between the role of parents, peer influence, and media influence with reproductive health knowledge in vocational high school students in Padang City. It is recommended for parents and students to establish effective interaction or communication to create closeness that encourages children to share and discuss reproductive health issues openly with their parents. Additionally, students are advised to choose information from reliable sources regarding reproductive health, whether from peers or media, to ensure that the information obtained is accurate and provides positive benefits.

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