

Improving Research, and Practice to Reproductive Health Understanding: An Indonesian Perspective for Sexual Education

Indah Sukmawati, Afdal Afdal*, Miftahul Fikri, Rezki Hariko, Zikra Zikra,
Gusni Dian Suri, Denia Syapitri

Department of Guidance and Counseling, Universitas Negeri Padang, Indonesia

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Abstract The lack of knowledge about reproductive health makes Indonesia face various health risks. This is because information about reproductive health is still considered taboo by most Indonesian people. The purpose of this study is to improve research, especially on reproductive health and describe the understanding of reproductive health in adolescents in Indonesia. The instrument used is the Indonesian Reproductive Health Scale (IRHS) which is valid and reliable. The sample in this study was 2506 adolescents in Indonesia, who were tested using a purposive random sampling technique. Data were analyzed using a t-test and ANOVA techniques. The results showed that the understanding of reproductive health based on male gender (48.50%) and female (68.24%) was in the moderate category, and there were significant differences in the understanding of reproductive health. Adolescent girls have a higher understanding of reproductive health than adolescent boys. Another result found that there was a significant difference in the understanding of adolescent reproductive health based on domicile, where adolescents who lived in the sub-district had the highest percentage (66.37%) compared to adolescents who lived in cities (54.11%), and in villages (45.91%). Research findings can be input for teachers, especially for guidance and counseling services to increase students' understanding of reproductive health in rural areas of Indonesia.

Keywords Adolescents, Guidance and Counseling, Reproductive Health, Sexual Education

1. Introduction

Adolescence is a period of transition from childhood to adulthood which is marked by dynamic growth and development both physically, psychologically, intellectually, socially, and sexually [1]–[4]. At this stage, adolescents are not mentally and socially mature, so they have to face many conflicting emotional and social pressures both from outside and within [5], [6]. The phenomenon that occurs today is not optimal for adolescents to know and understand reproductive health [7]–[13].

In recent years, reproductive health is understood as an important human right for every individual [14]–[20]. Reproductive rights in this case are related to the right to obtain information, facilities, standardization of sexual health and the right to make decisions without discrimination, pressure and violence, both normal individuals and individuals with disabilities [21]–[24]. Reproductive health is a condition experienced by individuals related to physical, mental and social health, systems and functions of the reproductive organs [12],

[25]–[30]. Problems that occur in adolescent reproductive health can be in the form of free sex, use of contraceptives, abortion, HIV/AIDS infection, use of illegal drugs, early marriage and menstrual disorders [23], [26], [31]–[34]. The problem is that there is a lack of information and agencies on sexual and reproductive health and risks to sexual health outcomes [35], furthermore, the sexual and reproductive health needs of adolescents are still poorly understood, underserved and/or unmet in many parts of the world [36]–[39]. There need to be preventive efforts to provide an understanding of reproductive health in adolescents because of the many problems that occur. One of the efforts to increase the understanding of reproductive health in adolescents is through education. Reproductive health and sexuality education is considered important to be taught, but the challenges in various countries to education related to reproductive health [14], [40]; there is still an assumption that reproductive health education is something that should not be discussed publicly; in addition, concerns about this education have an impact on the tendency to want to know and encourage premarital sex. This needs to be done to get a clearer picture regarding adolescents' self-understanding of their reproductive health. The assumption is that knowing the understanding of adolescents on reproductive health can provide alternative solutions by related parties in providing understanding regarding adolescent reproductive health. One of the parties in the field of education who can provide an understanding of reproductive health is a Guidance and Counseling Teacher or counselor. Counselors allow youth to use their preferences at the time of early marriage or partner selection, to make health-related decisions and to access health services. Therefore, this study aims to analyze the understandings of adolescent reproductive health and how to provide information and service delivery needs for adolescents in terms of gender and area of residence and help inform communication interventions that focus on the education of young adolescents, especially in Indonesia.

2. Methods

The method in this study uses a cross-sectional survey to characterize the knowledge, attitudes and understanding of adolescent reproductive health (aged 11–22 years) in three community areas (Urban, Regency and Rural) in Indonesia. The specific objectives of this study are to: identify the understanding of adolescents regarding reproductive health, and whether there are differences in the understanding of adolescent reproductive health in terms of gender, and area of domicile. This study has also undergone an ethical review and has been approved by the respondents to provide an assessment of the understanding of reproductive health from both the school and the family.

A two-stage sampling strategy was used to select a representative sample of adolescents in the school. In the

first stage, adolescents are selected using probability proportional to size sampling [41]. Adolescents with eligible participants were selected through systematic random sampling of detailed adolescents prepared for each of the included schools. The characteristics of the sample in this study are as follows Table 1.

Table 1. Characteristics of the sample

Age					
Interval		F		%	
19-22		38		1.51	
15-18		1582		63.12	
11-14		886		35.35	
Gender					
Male		F		%	
		831		33.20	
Female		1675		66.80	
Domicile					
City	%	Districts	%	Village	%
863	34.40	1240	49.50	403	16.1

Table 1 explains that 2506 were sampled in this study, consisting of 831 males (33.20 %) and 1675 females (66.80 %). The research sample generally (1240 people, 49.50%) reside in the district, while the rest live in the city (863 people, 34.40%) and in the village (403 people, 16.1%). All adolescents gave consent to participate in this study; for adolescents aged 15–18 years, parental consent was also obtained. Data collection was carried out through the Indonesian Reproductive Health Scale (IRHS) questionnaire which measures (1) understanding of reproductive processes, functions and systems, (2) understanding of sexually transmitted diseases, (3) attitudes about reproductive health, (4) understand the influence of media and social on sexual activity, (5) understand the ability to communicate online. This questionnaire is also divided into two variations which are used to understand male and female reproductive health. The questionnaire uses a 5-point Likert scale (from very dissatisfied to very agreeable). This instrument has been validated as evidenced by the results of the RASCH model analysis showed a reliability score of 0.92 for items and 0.93 for items with a Cronbach's alpha (KR-20) value of 0.94.

Data were analyzed and measurements were made using descriptive statistics to test categories (frequency and percentage) and independent sample t-test analysis was used to assess differences in understanding of male and female reproductive health. ANOVA analysis is used to determine the comparison of understanding possessed by adolescents who live in cities, districts, and villages. Adolescents answer knowledge-based questions in five reproductive health domains: (1) understanding of reproductive processes, functions and systems, (2) understanding of sexually transmitted diseases, (3)

attitudes about reproductive health, (4) understanding the influence of media and social activities on activities sexual intercourse, (5) understand the ability to communicate.

3. Results and Discussion

Based on the results of the general description of the understanding of adolescent reproductive health in Table 2. It can be seen that the understanding of male reproductive health is in the moderate category (48.50%) and the understanding of female adolescent reproductive health is moderate (68.24%). Based on the results of the study, it was shown that Females better understand reproductive health conditions than Males.

Table 2. General description of the understanding of adolescent reproductive health

Category	Score Interval	Male		Female		
		f	%	f	%	
Very High	138-163	3	0.36	127-148	2	0.12
High	112-137	10	1.20	105-126	59	3.52
Medium	86-111	403	48.50	83-104	1143	68.24
Low	60-85	387	46.57	61-82	455	27.16
Very Low	34-59	28	3.37	39-60	16	0.96

Ideally, feminine hygiene will be more cared for by women themselves to maintain reproductive health so as not to experience vaginal discharge, or skin irritation, and infectious diseases[42]–[44]. A healthy sexual self-concept that captures an understanding of the risks and positive aspects of sexuality is essential for lifelong well-being [45]. Parents have a unique opportunity to instill knowledge about sexual risks as well as confidence and comfort around sexuality in their teens [46]–[48].

Furthermore, the results of the t-test understanding of reproductive health between male and female adolescents are presented in Table 3. In Table 3, the understanding of adolescent reproductive health in groups is represented by the amount of data for male adolescents as many as 831 people and female adolescents as many as 1675 people.

While the results of the study showed the average value for each group, where the average score for the male group was 84.19 and the female group average was 87.95. Based on the average value, it looks not too different, but to clarify whether there is a significant difference, the t-test is used. In the independent sample T-test table, the F value is 0.452 with a Sig value of 0.501 which states that the significance value is greater than 0.05 ($0.501 > 0.05$), then this explains the homogeneity of the population variance. So that the homogeneity requirements are met to test the differences in understanding of reproductive health between male and female adolescents. The further test of the reproductive health hypothesis showed a statistical

value ($\text{sig}=0.001$), it was stated that the p-value was >0.05 . So it can be concluded that there are differences in the understanding of reproductive health between male and female adolescents.

Table 3. Statistical Results of Independent Sample T-Test in terms of gender

	Group Statistic		
	Gender	N	Mean
Reproduction health	Male	831	84.19
	Female	1675	87.95
<i>Independent Sample T-test</i>			
Value	Levene Test		T-test
	F	Sig.	Sig. (2-tailed)
Reproduction health	.452	.501	.001

Women have a greater curiosity and they feel more physiological changes in themselves such as menstruation [49], [50] and changes in body shape, so women will try to find information regarding reproductive health [51]–[53]. Information and knowledge about adolescent reproductive health is higher for female adolescents than male adolescents, due to the many sources of information used [21], [54]. Meanwhile for boys, understanding reproductive health is more about how to clean themselves after puberty takes place, male adolescents tend to not have enough information, causing ignorance and unpreparedness to face the first wet dream. Wet dreams can be said to be involuntary ejaculation that occurs during night dreams, Wet dreams are also marked as physical maturity in men. In one study, half of teens believed that night-time emissions were a sign of masculinity [5], [55], [56], and the lack of closeness with parents causes excessive anxiety from teenagers and confusion about expressing the problem [57], [58]. This also reinforces the need for an understanding of reproductive health given to young people in Indonesia to understand the importance of understanding reproductive health. Furthermore, the researcher wants to see the understanding of adolescent reproductive health in terms of the area of residence, which is described in Table 4 below.

Table 4. ANOVA Statistical Results of Adolescent Reproductive Health in View of Domicile

	Descriptive				
	domicile	N	Mean		
Reproduction health	City	863	87,89		
	Districts	1240	86,67		
	Village	403	84,27		
<i>ANOVA</i>					
Reproduction health	Sum of Squares	df	Mean Square	F	Sig.
	3598.969	2	1799.485	13.749	.000

Table 5. Adolescent Reproductive Health by Domicile

Category	City			District			Village		
	Interval	F	%	Interval	F	%	Interval	F	%
Very High	141-165	2	0.23	130-153	3	0.24	105-122	12	2.98
High	116-140	2	0.23	106-129	45	3.62	87-104	172	42.67
Medium	91-115	467	54.11	82-105	823	66.37	69-86	185	45.91
Low	66-90	369	42.75	58-81	355	28.62	52-68	29	7.20
Very Low	41-65	23	2.67	34-57	14	1.12	34-51	5	1.24
Total		863	100	Total	1240	100	Total	403	100

Table 4 explains the understanding of adolescent reproductive health as a group represented by the number of data on adolescents living in cities as many as 863 people, 1240 people living in districts and 403 people living in villages. While the results of the study show the average value for each group where the average value of the group of adolescents living in the city is 87.89, domiciled in the district is 86.67 and domiciled in the village is 84.27. Based on the average value, it looks not too different, but to clarify whether there is a significant difference, the ANOVA test is used. The results of the ANOVA analysis showed that the Sig value was 0.000, which means that there are differences in adolescent understanding based on domicile. Based on these results, it was also found that there need to be practical efforts made by regional parties in providing understanding to adolescents regarding reproductive health, each region can provide an understanding according to the needs of teenagers in the area and this can also provide input to the region, enabling further exploration of the conditions related to reproductive health, which is done to prevent the impact experienced by adolescents when they do not understand related to reproductive health. Furthermore, Table 5 will describe the results of understanding adolescent reproductive health based on domicile.

In Table 5, it can be seen that in general the understanding of reproductive health of adolescents who live in cities is in the medium category (54.11%), adolescents who live in districts are in the medium category (66.37%) and adolescents who live in villages are in the medium category (45.91%). Based on the results of the study, the average value of adolescents based on domicile has differences so when tested with ANOVA there are differences in understanding of reproductive health based on domicile. The results showed that adolescents who live in districts have the highest understanding (66.37%) compared to adolescents who live in cities (54.11%) and villages (45.91%). This situation is probably caused by the information received is still very minimal. Only a small proportion of the respondents have attended formal education on reproductive health, either through lectures, discussions, or seminars. Information received through this method is relatively more appropriate

for adolescents compared to other sources. In contrast to adolescents in rural areas, adolescents in urban areas have relatively better knowledge about reproductive health. This situation may be because adolescents in urban areas have more opportunities to sense objects, especially those related to reproductive health. In addition, teenagers often feel uncomfortable or taboo to talk about reproductive health issues. However, because of their curiosity, they will try to get this information. Often teenagers feel that their parents refuse to talk about reproductive health issues, so they then look for alternative sources of information such as friends or the mass media. These findings will also form the basis for the formation of regulations in the future so that in the regions it is necessary to improve understanding of reproductive health, this is done because every teenager who has a different domicile tends to be able to change the existing rules.

Adolescents' understanding is still low because one of them is influenced by information received either from the school environment or others. One of the factors that cause a lack of understanding of reproductive health in adolescents is due to limited facilities and the availability of health service infrastructure which is generally considered to be one of the main factors hindering reproductive health education efforts. The lack of availability of implementers who handle reproductive health issues has resulted in no place to express all complaints, and the lack of the role of community groups as sources of reproductive health information providers, as well as the lack of the role of the media as providers of reproductive health information sources. Other evidence of adolescent ignorance of reproductive health is seen from the many questions regarding reproductive organs, sexual behavior during courtship, infectious tract infections, unwanted pregnancies, contraception, sexual harassment, homosexuality to self-confidence problems [26], [42], [59]–[62]. The results also show that adolescence is always accompanied by a lack of knowledge related to self-change which is closely related to reproductive health. As a result, many teenagers seek knowledge about reproductive health from sources that are not reliable and appropriate.

Sources of information regarding reproductive health can be obtained through various sources, such as

newspapers, magazines, books, health workers and the internet. Lack of knowledge about reproductive health is very influential on the future of adolescents, with low knowledge about adolescent reproductive health resulting in many teenagers marrying young and getting pregnant when the age of the female organs is still vulnerable [63] [64]. In addition, the lack of understanding of adolescents on reproductive health is caused by the low level of education and knowledge of adolescents, parents and the community, so there is a tendency to marry off their daughters who are still underage. The lack of information obtained regarding reproductive health both at school and at home can cause adolescents to have poor practices in the care of their external genitalia. The findings of previous studies found various efforts to provide understanding to adolescents regarding reproductive health. These results also affect current technological advances which emphasize information obtained through social media information such as YouTube or Facebook, but the implementation of this activity still highlights the untapped potential of using digital platforms (especially YouTube and Facebook) to distribute accurate information on reproductive health and the challenges of providing individual information via mobile phones [65]. This study acknowledges the limitations of only measuring students' understanding of reproductive health in general. For further research it is recommended to classify research subjects in girls and boys using an ex post facto design, or apply a case study design with a qualitative approach where research samples can be classified in more detail.

4. Conclusions

In summary, this study provides a special examination of the understanding of the reproductive health of male and female adolescents. This special examination revealed that there are still teenagers who have a low and very low understanding of reproductive health. In addition, the area of residence also has a special influence on the understanding of adolescent reproductive health. This has an impact on adolescents who become the forerunners in the future to care for themselves and embody a clean attitude, especially in reproductive health. These results provide input to related parties in order to provide an understanding regarding reproductive health. The existing system forbids adolescents to be able to know the condition of reproductive health, which should be changed by providing understanding and special rules in preventing negative impacts that will arise in conditions of reproductive health. It is crucial to prioritize the education of future adolescents, particularly in terms of their understanding of reproductive health.

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