

Gender and Spatial Variations in the Use of Digital Media Related to Adolescents Reproductive Health in Yogyakarta Post-Pandemic Covid-19

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Abstract

Teenagers have an essential role as part of the development. The proportion of youth ranks highest in the overall population in the world, including Indonesia. The development of the digital world occurs along with the transition of adolescent life which has both good and bad impacts. The impact of the Covid-19 Pandemic became an accelerator for increasing the utility of youth towards digital media. The increase in risky behavior due to technological developments carried out by adolescents raises concerns. On the other hand, technological developments can also positively impact increasing knowledge and attitudes/behaviors, especially regarding health and reproductive issues which are closely related to adolescent development. The purpose of this study was to analyze the knowledge and attitudes/behaviors of adolescents related to reproductive health, adolescent characteristics and differences in adolescent knowledge according to their demographic characteristics and to analyze the use of digital media for Communication, Information, and Education (IEC) for post-pandemic adolescent reproductive health. This research is quantitative research and the unit of analysis used is the individual level (adolescents). The number of samples was 130 youth and data were analyzed by descriptive quantitative. The results of the study show that adolescents' knowledge of reproductive health is in a good category, but still needs to be improved. Likewise, regarding attitudes and behavior, there are a few teenagers who have attitudes and behaviors which are vulnerable to problems, such as the consumption of alcohol, cigarettes, drugs, free sexual relations, and others. There are four major digital platforms which are often used and teenagers are comfortable using them to access reproductive health knowledge and information, specifically online mass media, Instagram (IG), Tiktok, and Youtube.

Keywords: IEC; reproductive health; adolescent; digital media

Introduction

Data from the 2017 Indonesian Demographic Health Survey - Adolescent Reproductive Health (SDKI-KRR) as in previous years (2012 and 2007) show that adolescents' knowledge regarding reproductive health is

still not entirely good (BKKBN, et.al., 2018). In male adolescents, thirty-seven percent answered correctly about the fertile period of women, while 55 percent could not answer correctly. The percentage of women and men who know how HIV is transmitted from mother to child is highest during pregnancy, 76

percent and 63 percent, respectively. Forty-nine percent of women and 32 percent of men have heard of Voluntary HIV Counseling and Testing (VCT). More women (43%) than men (9%) are aware of the existence of a VCT location. Fewer women (68%) than men (86%) had ever heard of syphilis. Three out of 10 women and men know about gonorrhoea.

Regarding adolescent behavior, based on the 2017 Indonesian Demographic Health Survey Data - Adolescent Reproductive Health (SDKI-KRR), the percentage of men who smoke during interviews increased from 53 percent (2012 IDHS) to 55 percent (2017 IDHS). Some teenagers have also consumed alcohol, that is men who have drunk alcoholic beverages is 15 percent, while for women, it is 1 percent. Of those who drink alcohol, some have consumed it since the age of fewer than 10 years. Seventy percent of men and 58 percent of women started drinking alcohol in the age group of 15-19 years (2 percent of men and 6 percent of women). The percentage of women who have used illicit drugs is less than 1 percent. Regarding drug consumption, five percent of men use illegal drugs, including 2 percent by smoking and 3 percent doing so by drinking or swallowing (BKKBN, 2018).

Adolescents in Indonesia have great access to digital media. Based on data from the 2017 IDHS, eighty-one percent of never-married women aged 15-24 and seventy-seven percent of never-married men aged 15-24 watch television at least once a week. The available literature regarding digital media, both in global and national contexts, shows the magnitude of this access. Roberto, et.al. (2007) stated the importance of an intervention program based on digital media which can improve the reproductive health status of adolescents, for example, it can influence the increase in age at which they start having sexual intercourse. Yang, Zhao, & Ma (2019) and Riyanto (2022) stated that the TikTok application can become a popular culture in Indonesia. Riyanto (2022) shows

data that there are 4 big digital platforms that are popular in Indonesia, namely Whatsapp, IG, Facebook, and Tiktok. Several other studies support Roberto's statement, as stated by Tian, et.al. (2007), and Marsch, et.al. (2011). Socialization through digital media can increase the attitude of avoiding sexual relations or affect the use of condoms, especially among those who have had sexual intercourse.

Formulation of the Problem

Adolescents' knowledge of reproductive health still needs to be improved considering that some adolescents have experienced reproductive health problems. In addition, some others are potentially exposed to these problems. Digital media is a popular tool used by today's youth and has the potential to be used as a means of disseminating knowledge about reproductive health. On the other hand, research which focuses on adolescent IEC regarding reproductive health is still lacking. Therefore, it is interesting to study this research in order to answer these questions.

- 1 What are the characteristics, knowledge, attitudes, and behavior of adolescents regarding reproductive health?
- 2 What are the differences in reproductive health knowledge according to the characteristics of adolescents?
- 3 How is the use of digital media in adolescents in accessing reproductive health, especially in accessing information?

Research Objectives

Based on the description of the background, problem formulation, and justification for authenticity of the research above, this research proposal is intended to:

1. analyze the characteristics, knowledge, attitudes, and behavior of adolescents regarding reproductive health;

2. analyze differences in reproductive health knowledge according to the characteristics of adolescents;
3. utilization of digital media in adolescents in accessing reproductive health, especially in accessing information.

Literature Review

Various kinds of literature show how digital technology has been widely used in the development of Communication, Information, and Education (IEC) programs for adolescent reproductive health. Roberto, et.al. (2007) in an intervention study of adolescents in rural areas, in the United States regarding self-protection skills and surviving negative information. Indonesia is currently based on the results of a survey by the Indonesian Internet Service Providers Association (APJII), there are 210.03 million internet users in the country in the 2021-2022 period. That number increased by 6.78 percent compared to the previous period which amounted to 196.7 million people. This very large number certainly makes the Indonesian people experience cultural changes in media at this time because of course there are new tools and procedures which will be adopted by the people themselves in their use.

This change in media culture has made today's society a lot of media using a variety of increasingly sophisticated devices in the current convergence era, based on data from We Are Social in 2022 there are 370.1 connected mobile devices: 370.1 million while in 2021 only 345.3 million or up 3.6 percent. In addition, there has been an increase in Active Social Media users: 191.4 million in 2022 from 2021 of 170 million, an increase of 12.6 percent.

Ultimately, this is not only about increasing the number of technology users, but how to utilize this technology, one of which is access to reproductive health information by using digital media. Sara, et.al. (2022)'s research

shows that exposure to social media has a significant impact on knowledge of sexual and reproductive health (SRH) among young women.

Digital media in the form of the internet and social media, on the one hand, can play a positive or negative role as a source of fast access to information, communication, and education if balanced with competent online media literacy (Bull, et.al., 2009; Lou, et.al., 2006). Several elements outside of youth are closely related to the process of adolescents obtaining information which influences their principles, attitudes, and behavior. One of the examples is the socio-ecological element proposed by Blum, et.al. (2012), Bronfenbrenner (1979), and the World Health Organization (WHO, 2014).

Research Methods

This research is quantitative research and the unit of analysis in this study is at the individual level (adolescents). The adolescent reproductive health analysed by individual characteristic factors; their knowledge, attitudes, and behavior related to reproductive health. The survey conducted online and offline, in which respondents fill out the questionnaire themselves, the link for which has been received. Referring to the Thinking Framework, survey questionnaires generally dig up information about 1). Individual socio-demographic characteristics (adolescents) and family's background; 2). Knowledge, attitudes, and behavior of adolescents related to reproductive health; 3). Social media utilization and adolescent IEC related to reproductive health. The survey was conducted offline and online with various considerations: teenagers generally familiar with filling out questionnaires online and some of them prefer answer the questionnaire offline.

It was purposively determined that the respondents were Universitas Gadjah

Mada (UGM) students, both male and female, and unmarried living in Special Region of Yogyakarta aged 15-24 years. In addition, it is required that respondents are teenagers who in their daily lives always use information technology. Universitas Gadjah Mada was chosen in this study with the consideration that this university is the oldest and leading state university in the Special Region of Yogyakarta. Of course, Universitas Gadjah Mada students are considered to provide a good picture of the condition of adolescents, including in terms of the use of

communication technology, considering that this research explores more deeply the use of information and technology in reproductive health IEC. A total of 130 respondents were interviewed, including undergraduate and postgraduate students. Quotas were set for 130 respondents with consideration of fulfilling the needs for data analysis and this number met the requirements for further analysis.

Various variables to be measured in this study are as follows (Table 1). All research variables will be collected in primary data collection.

Table 1. Characteristics of Respondents

Aspect	Variable	Indicator
Demographic Characteristics		
Adolescents Characteristics (individual)	<ul style="list-style-type: none"> • age • gender • level education • Main activity • resident • access for online media • sexual and reproductive health (SRH) knowledge 	<ul style="list-style-type: none"> Clear enough • Knowledge about anemia • Knowledge about the sign of puberty • Knowledge about woman's fertile period • Knowledge about a woman becoming pregnant with only one sexual intercourse • Knowledge about contraception method • Knowledge about sexual transmission infections (STI) and HIV/AIDS

	<ul style="list-style-type: none"> • Perception/attitude related to sexual and reproductive (SRH) including perception about value/norm about sexual and reproductive (SRH) 	<ul style="list-style-type: none"> • Perception/attitude about the ideal age of marriage • Perception/attitude about virginity • Perception/attitude about people living with HIV/AIDS • Perception/attitude about Persepsi/sikap terhadap reproductiove (SRH) services
	<ul style="list-style-type: none"> • Behaviour related to sexual and reproductive health (SRH) 	<ul style="list-style-type: none"> • dating behavior • Premarital sex behavior • Abortion • Consumption of cigarettes, alcohol, and drugs
Family Characteristic	<ul style="list-style-type: none"> • Relationship with the head of the household Family resident • Number of family • Family income 	Clear enough
Utilization of Digital Media in Related Reproduction Health		
Utilization of digital media	<ul style="list-style-type: none"> • Information and communication online access for sexual and reproductive health (SRH) during pandemic covid-19 • Communication-related sexual and reproductive (SRH) through online media post-pandemic covid19 	<ul style="list-style-type: none"> • Online media used • Type of information accessed • Online media used • Topics/issues discussed

Results and Discussion

In understanding adolescents and their behaviour, it would be nice to know the characteristics which will influence or underlie the actions they take. The following are some of the characteristics which have been explored based on the results of this study.

Characteristics of Adolescents

Some of the information described in the discussion of characteristics includes, among other things, whether in rural or urban areas, relationship with the head of the household, economic activity, highest education attained, income of all household members, and number of dependents in the household.

The results showed that the percentage of young respondents living in rural areas was 57.4%, while 43% of young respondents lived in urban areas. Most of the status in the household is as a child by 72%. Based on household income, there are several groups/levels. The largest percentage is youth in the income group equivalent to the Regional Minimum Wage (UMR/*Upah Minimum Regional*) of 32%, then 27% of youth have income below the UMR and only 1/2 youth have income equal to above the UMR.

In households in which teenagers live, there are 4 children by 31%, then in second place, 27% consists of 3 children, while respondents with households with \geq 5 children are 25%. This percentage-based assumption refers to the number of family members with the status of children in the household, the majority of which are >2 children.

Knowledge of Reproductive Health and Utilization of Digital Platforms Regarding Reproductive Health Information

The results showed that the percentage of adolescents who had and had never heard of a forum/place to obtain information related to reproductive health did not have much difference. The data shows that the largest percentage is adolescents have not heard about the place to get reproductive health information by 54%. Meanwhile, 46% of adolescents had heard of a place to obtain information related to reproductive health. Some also did not know the place/convenience of obtaining reproductive health information by 61%. Meanwhile, adolescents who know the place/resource with the highest percentage are at the Youth Information and Counseling Center (PIKR), which is usually at school, at 18%. Meanwhile, 13% knew that the place to obtain reproductive health information was at the Community Health Center in the form of the Adolescent Care Health Service program. Only 8% of youth

know that the place/place to get information related to reproductive health is at the Youth Center. Only 18% of adolescents have ever used adolescent reproductive health services in the containers/places which have been provided. Meanwhile, 82% of them have never used it. This can happen due to several factors, such as knowledge, attitudes, and behavior of adolescents related to reproductive health.

Most of them (65%) know that there are certain days when the risk of pregnancy is higher, while the other 3% say no. Meanwhile, 32% of teenagers did not know that there were certain days which had a high risk of pregnancy if they had sexual intercourse. Generally (98%) of young respondents knew information about sexually transmitted infections, while 2% of them were not aware of this disease. The most widely used media to detect the presence of this disease, especially Instagram, online mass media, YouTube, and Twitter.

All of the teenage respondents knew that HIV/AIDS transmission could occur due to the use of injecting needles. Teenagers agree that people with HIV/AIDS can go to school/university with healthy people in general. Meanwhile, another 18% of respondents stated that people living with HIV/AIDS went to school with other healthy people. This shows that there is still a negative stigma against people living with HIV/AIDS which has limited the survivors' space for movement, including their right to education.

The majority (59%) of respondents stated that PLWHA (people with HIV/AIDS) could not be respected in society. While respondents amounted to 41% of respondents stated that they were still respected in society even though they had HIV/AIDS. The majority of teenagers also did not agree that HIV/AIDS could be transmitted through saliva, while 39% agreed that transmission could occur due to saliva. Adolescents state that 30% of the parties which are comfortable sharing reproductive health problems are schools.

This relates to the role of the school as a learning environment and a place where adolescent transitions to adulthood occur.

Most of them who were respondents had never had a smoking experience. This is evidenced by the percentage which has never had a smoking experience, which is 84%, while teenagers who have ever smoked are 16%. This difference is caused by several factors, both internal responses, such as knowledge about the dangers of smoking to external factors such as peers who consume cigarettes.

Most teenagers have never had the experience of consuming alcohol with percentage of 94%, while 6% of teenagers

have had experience consuming alcohol. Generally, they also have no experience/ never had a girlfriend 80.8%, while another 19.2% had experience having a girlfriend. Most of the respondents still uphold the virginity value (87.7%) and the other 12.3% did not.

Guse (2012) said that instead focusing on increasing the number of essential technology users. The main point is how to fully utilize this technology for access to reproductive health information through digital media. It is supported by Sara, et.al. (2022)'s research which stated that social media exposure had a significant effect on SRH knowledge among young women.

Table 2. The Most Convenient Sources of Information to Use in the Post-Covid-19 Era related to Reproductive Health by Gender

Sources of information	Gender	
	Male	Female
	(%)	(%)
Instagram	11.6	19.5
Online Mass Media	30.2	32.2
Radio	0.0	1.1
Tiktok	14.0	20.7
TV	7.0	1.1
Twitter	7,0	5.7
WhatsApp	0.0	3.4
Youtube	18.6	11.5
Others	11.7	4.6
Total	100.0	100.0

Source: Primary data, 2022

Table 2 shows that male and female adolescents have differences and similarities in their choices of information sources which are convenient for accessing information related to reproductive health in the post-Covid-19 period. The similarity between the two is that the largest percentage for both male and female adolescents is the use

of online mass media with the respective percentages being 30.2 percent by male adolescents and 32.2 percent by female adolescents. Online mass media is currently a mass communication medium which is developing very rapidly.

Furthermore, another similarity is the use of TikTok as the most comfortable medium

for both women and men. It can be seen that tiktok is the most convenient source of information for both young women and men. A Yang, Zhao, & Ma (2019) stated that the TikTok application can become a popular culture in Indonesia, for several reasons, namely, because short videos are close to reality and general situations, simple short video services, friendly application interfaces, user freedom, sophisticated production levels, key content which addresses current trends, celebrity effects, and eye-catching marketing.

Meanwhile, the difference is in the tendency for male teenagers to place YouTube as the second most convenient information media, while female teenagers put YouTube in fourth place with a respective percentage of 18 percent and 11 percent. Next is the domination of the use of YouTube which is used as the second most convenient source of information for men, while for female teenagers, Instagram is the

third most convenient source of information. Meanwhile, for male teenagers, YouTube is the third most convenient medium. On the other hand, Instagram is the second most convenient information media for female teenagers, while YouTube is in fourth place with a percentage of 19.5 percent and 11.5 percent respectively. This difference is motivated by the features available on both platforms which are suitable when based on gender. Instagram is a social media which contains pictures and videos with simple shapes and has a fast rate of information dissemination.

The results of the Chi Square analysis to determine differences in access to digital media according to gender produce a P-value of 0.000 with a coefficient of 0.085. If the P-value <0.05 and the coefficient is positive, then H0 is rejected with a positive relationship. In other words, there are significant differences in access to digital media according to gender groups.

Table 3. Information Sources which are Most Convenient to Use in the Post-Covid-19 Period to Obtain Reproductive Health IEC according to Family Income

Sources of Information	Family Income (Rp)			
	<2,000,000	2,000,000 - 4,999,999	5,000,000 - 10,000,000	> 10,000,000
Instagram	21.1	16.3	13.8	14.3
Online Mass Media	26.3	32.7	31.0	42.9
Radio	0.0	0.0	3.4	0.0
Tiktok	13.2	22.4	10.3	35.7
TV	0.0	4.1	6.9	0.0
Twitter	2.6	8.2	6.9	7.1
WhatsApps	7.9	0.0	0.0	0.0
Youtube	18.4	8.2	24.1	0.0
Others	10.6	8.2	3.4	0.0
Total	100.0	100.0	100.0	100.0

Based on the analysis in Table 3, it is known that the most convenient source of information for all income levels of adolescent families is online mass media. The largest percentage was in adolescents with the highest family income > Rp. 10,000,000, that is 42.9 percent, and the lowest with income < Rp. 2,000,000, which was 26.3 percent.

The Chi-Square test results showed that the age group variable had a P-value of 0.042. If the P-value < 0.05 and the coefficient is positive, then H0 is rejected with a positive relationship. In other words, there is a significant difference in the use of media

sources which people feel most comfortable accessing reproductive health information in Indonesia according to family income. Based on the test results, the hypothesis that there is a significant difference in the use of media sources which are considered the most convenient for accessing reproductive health information in Indonesia according to family income can be stated as accepted. This result is in line with the Study (Saha, et.al, 2022) which emphasized education and household wealth as important facilitators of social media accessibility of sexual reproductive health (SRH) knowledge.

Table 4. Information Sources which are Most Convenient to Use in the Post-Covid-19 Period to Obtain Reproductive Health Information, Education, and Communication by Area of Residence

Sources of Information	Region	
	Rural %	Urban %
Instagram	13.0	21.3
Mass online Media	31.9	31.1
Radio	0.0	1.6
Tiktok	20.3	16.4
TV	2.9	3.3
Twitter	8,7	3.3
WhatsApps	4.3	0.0
Youtube	7.2	21.3
Others	12.4	1.6
Total	100.0	100.0

Source: Primary data, 2022

The most comfortable information source platform used both in rural and urban areas with respective percentages of 31.9 percent and 31.1 percent is online mass media. The results of the Chi-Square test on the variable the place one lives show that the P-value is 0.085. If the P-value > 0.05, then H0 is accepted. In other words, there is no significant difference between the location where adolescents live and the most convenient source of information

for accessing reproductive health information services. There are no differences in access to digital media by region. It is possible that Universitas Gadjah Mada (UGM) students are an educated group so even though they come from rural areas, they already have good access to the internet. As for those from Special Region of Yogyakarta, almost all areas of Special Region of Yogyakarta can access the internet.

It is in contrast to the study of Saha, et.al. (2022) where living in a rural area is the most prominent deterrent to social media accessibility and the acquisition of SRH knowledge. The low social media exposure in rural areas is primarily a potential manifestation of the urban/rural digital divide and widespread gender inequality, limiting girls from internet-facilitated social media connectivity. Raj, et.al. (2021) highlighted the low presence of digital connectivity in rural areas of Bihar and Uttar Pradesh (India).

Based on the characteristic data regarding sources of information related to reproductive health, it was seen using the variables age, gender, and family income, it was found that the dominance of the platform was felt to be the most comfortable to use to access all forms of information related to reproductive health. The first is that Online Mass Media is the most comfortable choice to be used as a source of information on reproductive health. Online mass media is

considered the most comfortable because it provides various sources of information needed

The online mass media which are often used as sources of information are Google.com, Detik.com, Tribunnews.com, Kompas.com Google.co.id, Tribunnews.com, Liputan6.com and Suara.com (Riyanto, 2022). This is due to the use of media Additional benefits of using the Internet include low costs and rapid transmission through the wider community (Hudnut-Beumler, Po'e, & Barkin, 2016). Likewise, with the use of the Tiktok application in Indonesia, its users have increased by 63.1 percent of the total population, from 38.7 percent in the previous year. When based on gender variables, family income and place of residence have a high percentage. The variety of information content on Tiktok as well as presentations in various forms makes it convenient to use as a source of youth information.

Table 5. Knowledge Level of Reproductive Health by Region of Residence

Region	Knowledge level		
	Not Good (%)	Moderate (%)	Good (%)
Rural	25.0	43.8	64.1
Urban	75.0	56.2	35.9
Total	100.0	100.0	100.0

Source: Primary data, 2022

The results of the study in Table 5 show that between rural and urban areas there are differences in the level of reproductive health knowledge. Between the two, urban areas have a poor level of reproductive health knowledge of 75 percent, while in rural areas

it is only 25 percent. On the other hand, the level of good reproductive health knowledge has a large percentage in rural areas, specifically 64.1 percent, while in urban areas it is 35.9 percent. Meanwhile, at the moderate level of reproductive health knowledge in

these two regions, the percentages were not much different, to be specific, in rural and urban areas, it was 43.8 percent and 56.2 percent respectively.

The Chi-Square test results showed that the area of residence variable had a P-value of 0.004. If the P-value < 0.05, then H0 is rejected. In other words, there are significant differences in reproductive health knowledge according to the area of residence. This

finding is in line with previous studies in which adolescents in urban areas had higher knowledge of sexually transmitted infections and HIV-AIDS than in rural areas (Nasution and Puspitasari, 2019). This was also supported by research by Kumar, et.al. (2021) which knowledge regarding fertility and age is better for young women to marry in urban areas than in rural areas.

Table 6. Level of Reproductive Health Knowledge by Gender

Gender	Knowledge level		
	Not Good	Moderate	Good
	(%)	(%)	(%)
Male	45	59.4	19.2
Female	55	40.6	80.8
Total	100.0	100.0	100.0

Source: Primary data, 2022

The results of the study in Table 6 show that between women and men, there are differences in the level of reproductive health. At the level of good reproductive health knowledge, knowledge is as much as 80.8 percent for women, while men are only 19.2 percent. Meanwhile, at the level of reproductive knowledge which was not good, the percentages were almost the same for both men and women, that is 45 percent and 55 percent. Meanwhile, at the medium level of knowledge of reproductive health, men have the dominant percentage compared to female adolescents, specifically 59.4 percent and 40.6 percent.

The Chi-Square test results showed that the gender variable had a P-value of 0.000. If the P-value < 0.05, then H0 is rejected

with a positive relationship. In other words, there are differences in reproductive health knowledge according to gender. Based on the test results, the hypothesis for gender with reproductive health knowledge is accepted. Based on Ernawati's research (2018), there are differences in reproductive health knowledge according to gender. Teenagers in male adolescents have lower knowledge than female adolescents. This is caused by the many valid sources of information used by female adolescents (Ernawati, 2018; Hery, 2014)

The findings in this study are in accordance with previous studies in Vadodara City, India, which showed that very few male and female adolescents could correctly explain the processes of the reproductive system (Kotecha, 2012).

Table 7. Level of SRH Knowledge based on Family Income

Family Income	Level Knowledge		
	Not Good	Moderate	Good
	(%)	(%)	(%)
>Rp10,000,000	25.0	9.4	7.7
Rp 5,000,000-10,000,000	20.0	31.2	19.2
Rp 2,000,000-4,999,999	25.0	37.5	41.0
Rp <2,000,000	30.0	21.9	32.1
Total	100.0	100.0	100.0

Source: Primary data, 2022

The level of reproductive health knowledge at a good level is dominated by adolescents from households with an income level of Rp2,000,000 to Rp4,999,000 by 41 percent. Furthermore, those at an income level of <Rp2,000,000 is 32.1 percent and an income of Rp5,000,000 to Rp10,000,000 is only 19.2 percent. Meanwhile, the lowest percentage at the level of reproductive health knowledge is at income above > Rp10,000,000, only 7.7 percent.

The Chi-Square test results showed that the area of residence variable had a P-value of 0.224. If the P-value > 0.05, then H0 is accepted. In other words, there is no significant difference in reproductive health knowledge according to family income. Based on the test results, the hypothesis for family income with reproductive health knowledge is rejected.

This finding is different from previous research conducted by Raj, et.al. (2021) and Scott, et.al. (2021). Affordability and capacity to sustainably support the functioning of new-age digital devices should allow wealthier youth to gain more access to mobile devices and social media exposure compared to their poorest counterparts. Lower opportunities for Sexual and Reproductive Health (SRH) knowledge in poor households can be attributed to less educational background, reduced exposure to health awareness

programs, mass media sources, and limited sociocultural norms/gender role beliefs.

Conclusion

More than half of adolescents have a good level of knowledge about reproductive health (59.6 percent), as many as 24.4 percent are moderate and 15.3 percent are not good. This means that there are still 24.4 percent which needs to be improved and 15.3 percent which really need attention. Adolescents who have good knowledge are dominated by women, while boys and girls are less good and moderate. This means that attention should be emphasized to both girls and boys, but boys must be on the top priority. The difference in the level of knowledge by sex is significant. Meanwhile, according to rural or urban areas, it means that adolescents from rural areas who become Universitas Gadjah Mada (UGM) students are significantly better at reproductive health knowledge. It is possible that this is due to the choice of information sources which are more reliable (because of the norms which are still adhered to even when accessing the internet) and good access even though they come from rural areas.

Adolescents' attitudes and behavior are relatively still very good, but a few of

them need attention. Adolescents who had never had a smoking experience were 84%, while adolescents who had ever smoked were 16%. Most teenagers have never had the experience of consuming alcohol with percentage of 94%, while 6% of teenagers have had experience consuming alcohol. Almost all of the respondents, specifically 99.3% of the youth respondents had never had experience using illegal drugs, while the other 0.7% had experience using drugs. Most of the respondents still uphold the virginity value of 87.7%, while the other 12.3% did not. This means that these adolescents are very vulnerable to reproductive health problems, which strengthens the argument that increasing reproductive health knowledge is urgent. Online mass media (41 percent), IG (22%), Tiktok (24%), and YouTube (18%) are the top four digital media that are mostly accessed by teenagers to gain knowledge about reproductive health. Conventional media, such as TV (4%) and radio (2%), are not very accessible to teenagers for this purpose. Likewise, friends as the source of information, only 2 percent use friendship in obtaining information about reproductive health.

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