

## Relationship Between Sources of Information on Knowledge and Adolescent Attitude AT SMA N 1 Kayuagung, OKI, Sumatera Selatan

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**Abstract---**Adolescence is a transition from childhood to adulthood. Teenagers experience rapid growth and need good nutrition to support their growth and development. One of the factors that play a role in the formation of adolescent behavior is that the cue factor acts in the form of mass media campaigns where mass media is one source of health information. Information sources obtained by adolescents are not matched by the existence of health education related to reproductive health by teachers and parents so that not a few adolescents engage in premarital sexual relations. This research was conducted to see the relationship of information sources to the knowledge and attitudes of Adolescents in SMA Negeri 1 Kayuagung, South Sumatra. This study was an observational study with a cross-sectional study design in which the sample was taken using cluster random sampling techniques on students of SMAN 1 Kayuagung that met the inclusion and exclusion criteria. Statistic test used the chi-square test with significance level  $p < 0.05$ . The results showed that respondents who have less knowledge is 34.5% of 142 respondents while respondents who have less perception/attitude are 26.1%. Adolescents who did not get information from the mass media were 2.3 times more likely to have less knowledge than adolescents who got information from the mass media (95% CI: 1.5-3.7). While adolescents who did not get information from the mass media were 2.0 times more likely to have less attitudes than adolescents who received information from the mass media (95% CI : 0.9-4.3). It is recommended to conduct regular counseling to Adolescents regarding reproductive health by coordinating with the health center and selecting adolescent reproductive health ambassadors to be able to increase adolescent knowledge about life skills so as to make adolescents a peer counselor for their peers.

**Keywords:** adolescents, source of information, health reproductive

### I. INTRODUCTION

Adolescent sexual and reproductive health is an area that requires evidence-based research and policy. For almost two decades, the International Conference on Population and Development (ICPD) action program focused on specifically issues relating adolescents. This includes pregnancy of

teenager, HIV transmission and gender inequality in health and reproductive rights, and the impact of this problem on poverty and development in general.

It especially highlights young people in the general development process that relates health, population and development in the effort to achieve the Millennium Development Goals (MDGs) (WHO, 2011; Hindin et al., 2012).

The results of the 2007 Indonesian Youth Reproductive Health Survey (SKRRI) reported that unhealthy sexual behavior among unmarried adolescents tended to increase. Some research results show that adolescents aged 15-24 years have had premarital sexual relations of 1% in women and 6% in men, adolescent dating experiences in Indonesia tend to be more courageous and open such as holding hands (men 69% and women 68.3 %), kissing (41.2% male and 29.3% female), fingering (26.5% male and 9.1% female) (SKRRI, 2007). Unintended pregnancy rates in adolescents also have increased.

Adolescence is a transition from childhood to adulthood.. According to the 2017 National Socio-Economic Survey (Susenas), 63,360,000 of them were adolescents consisting of 31,993,663 people (50.49%) and 31,369,536 people (49.51%). The size of the population of these adolescent groups will greatly influence population growth in the future (BPS, 2017)

One of the factors that play a role in the formation of adolescent behavior is that the cue factor acts in the form of mass media campaigns where mass media is one source of health information. Sources of information obtained by adolescents are not matched by the existence of health education related to reproductive health by both teachers and parents so that not a few adolescents engage in premarital sexual relations (Momongan, et al, 2016). Due to lack of information and knowledge about reproductive health and family planning (KB) which causes adolescents can not find alternative protection for themselves in preventing pregnancy. Socio-cultural, economic factors, family support and the role of health workers are associated with teenage pregnancy (Ramadani, et al, 2015)

The low knowledge of adolescents about reproductive health is another problem with adolescent reproductive health. As many as 13% of adolescent girls do not know about their physical changes and almost half (47.9%) do not know when a woman's fertile period (Kemenkes, 2010). The results of Lou's (2014) research on adolescents 15-24 years in Shanghai, Hanoi, and Taipei, show that the message presented in the media is a factor influencing adolescent knowledge, attitudes, and behavior.

Therefore, this study was conducted to see the relationship of information sources to the knowledge and attitudes of young women in Senior High School 1 Kayuagung..

## II. METHOD

This study was an observational study with a cross-sectional study design in which sample collection using cluster random sampling techniques on students of Senior high school 1 Kayuagung that met the inclusion and exclusion criteria, which were young women and aged between 15-19 years. Statistical tests used the chi-square test with degree significance of  $p < 0.05$ .

## III. RESULTS

Table I present the distribution of adolescents by background characteristics.

TABLE I.

Distribution of adolescent by background characteristics

Variables	Total (n)	Percent
<b>Knowledge of Reproductive Health</b>		
Less/Enough	49	34,5
Good	93	65,5
<b>Perception/Attitude of Reproductive health</b>		
Less/Enough	37	26,1
Good	105	73,9
<b>Mass Media</b>		
No	8	5,6
Yes	134	94,4
<b>Flyer/Poster</b>		
No	110	77,5
Yes	32	22,5
<b>Formal Educator</b>		
No	6	4,2
Yes	136	95,8
<b>Near Environment</b>		
No	10	7,0
Yes	132	93,0
<b>Religious leader</b>		
No	86	60,6
Yes	56	39,4
<b>School-level</b>		

Primary	42	29,6
Secondary	64	45,1
Tertiary	36	25,4
<b>Father's education</b>		
Low	29	20,4
High	113	79,6
<b>Mother's education</b>		
Low	23	16,2
High	119	83,8
<b>Father's job</b>		
Not working/labors	5	3,5
Employee	137	96,5
<b>Mother's job</b>		
Not working/labors	71	50,0
Employee	71	50,0

Source: Primary data, 2019

Based on Table I, the frequency distribution of 142 respondents shows that adolescents who have insufficient/sufficient knowledges are 34.5% while adolescents who have insufficient/sufficient attitudes are 26.1%. adolescents who get sources of information on reproductive health come from the mass media by 94.4%, leaflets/posters by 32%, formal educators by 95.8%, the immediate environment by 93.0%, and religious leaders by 39.4%. Thus it can be seen that most teenagers get sources of information about reproductive health that comes from formal educators. The majority of respondents were at level II of 45.1%. Father and mother education that has been taken is at the highest level with 79.6% and 83.8% respectively. The occupation of the majority of fathers is 96.5% of employees while the work of mothers who do not work/labors and employees has the same percentage of 50.0%.

Table II shows that adolescents who did not get information from the mass media had a higher percentage of knowledge about reproductive health that was less / sufficient compared to an adolescent who received information from the mass media. Among girl who did not get information from the mass media, 75.0% had insufficient/sufficient knowledge, while among girls who got information from the mass media, 32.1% had insufficient/sufficient knowledge. In addition, adolescent who did not get information from leaflets/posters had a higher percentage of knowledge / 39.1% compared to adolescent who got information from leaflets / posters (18.8%). Also, adolescent who did not receive information from formal educators had a higher percentage of less / sufficient knowledge (50.0%) compared to adolescent who received information from formal educators (33.8%). Likewise, adolescent who did not get information from the immediate environment had a percentage of knowledge that was less / quite higher (50.0%) compared to adolescent who received information from the

immediate environment (33.3%). While adolescent who did not get information from religious leaders had a percentage of less / sufficient knowledge that was not much different (36.0%) when compared to adolescent who received information from religious leaders (32.1%). In addition, adolescents in class and 2 have a higher / moderately higher percentage of knowledge (57.1% and 32.8%) compared to class 3 youth (11.1%). In addition, adolescent girls with low father education have a percentage of compared to adolescent girls with high father education (33.6%). Whereas adolescent with low maternal education has less / moderately lower percentage of knowledge (30.4%) when compared to adolescent with high maternal education (35.3%). Likewise, adolescent with father's work as laborers / not working have a lower percentage of less / sufficient knowledge (20.0%) when compared to adolescent with father's occupations as employees (35.0%). Likewise, adolescent with maternal occupations as laborers / not working have a lower / moderately lower percentage of knowledge (33.8%) than adolescent with maternal occupations as employees (35.2%).

TABLE II

The relationship between information sources and adolescent characteristics on adolescent knowledge about reproductive health

Variables	Categorized	Number of risks	% Knowledge Less/ Enough	PR (95%CI)*
Mass media	No	6	75.0	2.337 (1.461-3.739) <sup>#</sup>
	Yes	43	32.1	Ref
Flyer/ Poster	No	43	39.1	2.085 (0.977-4.449)
	Yes	6	18.8	Ref
Formal educator	No	3	50.0	1.478 (0.642-3.304)
	Yes	46	33.8	Ref
Near environment	No	5	50.0	1.500 (0.771-2.917)
	Yes	44	33.3	Ref
Religious leader	No	31	36.0	1.121 (0.699-1.800)
	Yes	18	32.1	Ref
School level	Primary	24	57.1	5.143 (1.968-13.436) <sup>#</sup>
	Secondary	21	32.8	2.953 (1.099-7.933) <sup>#</sup>
	Tertiary	4	11.1	Ref
Father's education	Low	11	37.9	1.128 (0.662-1.922)
	High	38	33.6	Ref
Mother's education	Low	7	30.4	0.862 (0.444-1.675)
	High	42	35.3	Ref
Father's job	Not working/ laborers	1	20.0	0.571 (0.097-3.344)
	Employee	48	35.0	Ref
Mother's job	Not working/ laborers	24	33.8	0.960 (0.610-1.511)
	Employee	25	35.2	Ref

\*Prevalence Rate (PR) (95% confidence interval (CI)) unadjusted

<sup>#</sup>Sig < 0.05

Ref: reference

Table II presents the relationship between types of information sources and characteristics of adolescent girls' knowledge. This study has found a positive relationship between mass media (PR: 2.337; 95% CI: 1.461-3.739) and level/class (PR: 5.143 (95% CI: 1.968-13.436); (PR: 2.953 (95% CI: 1.099-7.933) with the knowledge of adolescent in SMA N 1. Kayuagung, while leaflets / posters, formal educators, close environment, religious leaders, father's education, mother's education, father's occupation, and mother's occupation do not correlate.

Table III shows that adolescent girls who did not get information from the mass media had a higher percentage of less / sufficient attitudes (50.0%) compared to adolescent girls who got information from the mass media (24.6%). Meanwhile, adolescent who did not get information from leaflets/posters had a percentage of attitudes less / sufficient that is not much different (27.3%) compared to adolescent who got information from leaflets / posters (21.9%). In addition, adolescent girls who did not get information from formal educators had a higher percentage of less / sufficient attitudes (50.0%) compared to adolescent who received information from formal educators (25.0%). Likewise, adolescent who did not get information from religious leaders had a higher percentage of less / sufficient attitudes (31.4%) compared to adolescent who received information from religious leaders (19.7%). Adolescent girls with less / sufficient knowledge have a higher percentage of attitude / less (34.7%) than adolescents with good knowledge (21.5%). In addition, adolescents class 1 and 2 have a percentage of attitudes less / enough (47.6% and 25.0%) compared to adolescent class 3 (2.8%). In addition, girls with a low father's education had a higher percentage of less / sufficient attitudes (37.9%) than girls with a high father's education (23.0%). Whereas adolescent with low maternal education have less / moderately lower percentages of attitudes (21.7%) when compared to adolescent with high maternal education (26.9%). Likewise, teenage girls whose father's job as a laborer / non employed has a much lower percentage of attitude / adequacy (0%) when compared to adolescent with father's occupation as an employee (27.0%). Meanwhile, adolescent with maternal occupations as laborers / unemployed have a higher / lower percentage of attitude (32.4%) compared to adolescent with maternal occupations as employees (19.7%).

Table II presents the relationship between the types of information sources and characteristics of

the attitude of adolescent. This study found a positive relationship between level / class (PR: 17,143 (95% CI: 2,419-121,509); (PR: 9,000 (95% CI: 1,244-65,093) with the attitudes of adolescent in SMA N 1 Kayuagung. Meanwhile, mass media, leaflets / posters, formal educators, close environment, religious leaders, father's education, mother's education, father's occupation, and mother's occupation have no correlation.

TABLE III  
The relationship between information and adolescent characteristics on adolescent attitude about reproductive health

Variables	Categorized	Number of risks	% Persepsi/ Sikap Kurang/ Cukup	RR (95%CI)*
Mass media	No	4	50.0	2.030 (0.965-4.314)
	Yes	33	24.6	Ref
Flyer/Poster	No	30	27.3	1.247 (0.605-2.568)
	Yes	7	21.9	Ref
Formal educator	No	3	50.0	2.000 (0.854-4.686)
	Yes	34	25.0	Ref
Near environment	No	4	40.0	1.600 (0.709-3.613)
	Yes	33	25.0	Ref
Religious leader	No	27	31.4	1.758 (0.924-3.344)
	Yes	10	17.9	Ref
School level	Primary	20	47.6	17.143 (2.419-121.509) <sup>#</sup>
	Secondary	16	25.0	9.000 (1.244-65.093) <sup>#</sup>
	Tertiary	1	2.8	Ref
Father's education	Low	11	37.9	1.649 (0.928-2.929)
	High	26	23.0	Ref
Mother's education	Low	5	21.7	0.808 (0.352-1.854)
	High	32	26.9	Ref
Father's job	Not working/ labors	0	0	-
	Employee	37	27.0	Reff
Mother's job	Not working/ labors	23	32.4	1.643 (0.922-2.926)
	Employee	14	19.7	Ref
Perception/ Attitude	Less/Enough	17	34.7	1.613 (0.934-2.786)
	Good	20	21.5	Reff

\*Prevalence Rate (PR) (95% confidence interval (CI)) unadjusted

<sup>#</sup>Sig < 0.05

Ref: reference

#### IV. DISCUSSION

Based on statistical calculations in this study, it was found that in young women in Senior high school 1 Kayuagung there were students who had less / enough knowledge of 34.5% and insufficient attitude of 26.1% of the total 142 respondents. These results are not much different when compared with the results of research conducted by Ernawati (2018) who found that adolescents who have poor knowledge about reproductive health by 38.3%.<sup>1</sup> These results are also almost the same as the research conducted by Ajiningsih

and Anisa (2018) which found that adolescents who had negative attitudes about reproductive health were 27.8%.<sup>2</sup> When viewed based on the results of the 2012 IDHS KRR showed that adolescent knowledge about reproductive health was still inadequate, this could be seen with only 35.3% of adolescent girls who knew that with one sexual intercourse a woman could get pregnant. Likewise regarding PMS symptoms that are less known by adolescents. Information on HIV is relatively more widely accepted by adolescents, although only 9.9% of adolescent girls have comprehensive knowledge about HIVAIDS. Teenagers also do not know much about youth service place (Ministry of Health Republic of Indonesia, 2014).<sup>3</sup>

Adolescent knowledge about reproductive health is knowledge possessed by adolescents about a physical, mental, and social condition that is intact and not only free from disease or disability, bbut in all aspects related to reproductive processes, functions, and systems in all stages of life (Sirupa, et.al., 2016)<sup>4</sup> Piaget's Theory states that adolescents tend to build their knowledge from sources of information they get that can come from the mass media, friends, or parents (Santrock, 2003).<sup>5</sup>

A univariate analysis was carried out to see the frequency distribution of respondents and a bivariate analysis was carried out to see the relationship between the types of information sources and the characteristics of the respondents to the knowledge and attitudes of adolescents regarding reproductive health. Types of information sources are divided into 5 varibales, namely mass media, leaflets / posters, formal education, the immediate environmetn, and religious leaders. While the characteristics of respondents consisted of level / class, father's education, mother's education, father's occupation, and mother's occupation.

Based on the results of bivariate analysis using the chi-square tests, it was found that the variables associated with adolescent knowledge about reproductive health were mass media. While variables related to adolescent knowledge and attitudes about reproductive health are the level / class of adolescents. The results of the bivariate analysis in this study prove that the mass media have a significant relationship to adolescent knowledge about reproductive health (p-value : 0.020) with a PR value of 2.333 (95% CI : 1.461-3.739). This shows that adolescents who do not get sources of information from the mass media are 2.333 times higher risk of having less / enough knowledge about reproductive health compared to adolescents who get sources of information from the mass media. With a 95% degree of confidence, researchers believe that in the general population the mass media is a risk factor for adolescent knowledge about reproductive health ranging from 1.461 to 3.739. This is in line with

research conducted by Rahmawati, et al. (2011) which shows that there is a relationship between the use of various mass media and the level of knowledge of adolescent reproductive health. According to him, one of the influences of mass media is that it can influence one's knowledge so that the more information obtained from the mass media, the higher the level of one's knowledge (Rahmawati, et al., 2011).<sup>6</sup> In addition, these results are also in line with research conducted by Hakim and Kadarrullah (2016) who showed that the more mass media used to search for information, the better the level of reproductive health knowledge in adolescents.

Mass media is a type of information source that is one of the communication tools that enables the delivery of messages and information from sources to the public. The mass media used as criteria in this study include radio, television, internet / website / blog, newspaper / magazine / tabloid, banners / billboards / billboards, social media / chat, and service / SMS hotline. Senjaya (2009) states that adolescents most use the internet or online media to get information in accordance with research results obtained in this study, from 134 adolescents who get information sources from the mass media, adolescents who get information from the internet / website / blog by 94.8% .7 In addition to mass media, there are level / class variables related to adolescent knowledge about reproductive health with p-value : 0.000, PR : 5.143 (1.968-13.436) (class 1) and 0.030, PR : 2.953 (1.099-7.933) (class 2) with a grade 3 comparison. This means that grade 1 and grade 2 adolescents are at risk 5.143 and 2.953 times higher to have less / enough knowledge compared to grade 3. This is in line with the opinion according to Mubarak (2007) which states that the factors which affect the level of knowledge there are three and one of them is education. The higher a person's education the easier it is to receive information so the more knowledge he has.<sup>8</sup> According to Refirman, et al. (2008) say that highly educated people will have better knowledge compared to someone whose education level is lower.<sup>9</sup>

Furthermore, there are level / grade variables related to adolescent attitudes regarding reproductive health with p-value : 0.000, PR : 17.143 (2.419-121.509) (grade 1) and 0.010, PR : 9.000 (1.244-65.093) (grade 2) with a grade 3 comparison. This means that grade 1 and grade 2 adolescents are 17.509 and 9.000 times higher at risk of having insufficient / inadequate knowledge compared to grade 3. This is in line with the statement of the theory of Notoatmodjo (2010) in Limoy and Panjaitan (2017) ) that attitude is a reaction or response of someone who is still closed to the stimulation or object. Manifestations of attitudes cannot be directly seen, but can only be interpreted in advance from closed behavior.

## V. CONCLUSION

Based on the results of the study obtained from 142 respondents showed that respondents who have less knowledge that is equal to 34.5% while respondents who have less perception/attitude that is equal to 26.1%. showed that adolescents who did not get information from the mass media were 2.337 times higher risk of having less knowledge than adolescents who got information from the mass media (95% CI : 1.461-3.739). It is recommended to conduct regular counseling to young women regarding reproductive health and coordinate with the health center. Selecting adolescent reproductive health ambassadors to be able to increase adolescent knowledge about life skills to make adolescents a peer counselor for their peers.

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