

## DETERMINANTS OF STIGMA ON PEOPLE LIVING WITH HIV AND AIDS IN INDONESIA (EVIDENCE FROM 2017 IDHS DATA)

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### ABSTRACT

**Introduction:** People living with human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) face bio-psycho-socio-spiritual problems. The stigma against PLWHA exists in more than 65 countries. Indonesia occupied the highest position in the Pacific with a case rate of 62.8%. Stigma has contributed to the failure of HIV and AIDS epidemic-control programs. **Aims:** To determine the stigma against PLWHA in Indonesia. **Method:** This study used the 2017 IDHS dataset with a cross-sectional design. The study sample comprised 47,233 people. The variables studied included age, sex, marital status, educational level, economic status, employment status, mass media exposure, type of residence, knowledge about HIV and AIDS, and stigma against PLWHA. The data analysis technique was the chi-square test and logistic regression with  $\alpha$  0.05 (5%). **Result:** Factors that determined the stigma of PLWHA include age 15-19 (OR 1.611), age 20-24 (OR 1.438), age 25-29 (OR 1.131), age 30-34 (OR 0.993), male gender (OR 0.834), married status (OR 1.416), educational level less (1.247), very poor economic status (OR 1.503), poor (OR, 1.134), medium (OR 1.080), rich (OR 0.972), not working (OR 1.065), and lack of knowledge (OR 2.588). **Conclusion:** person aged 15-24 years, female, single, have low education, poorest/poor, do not have a job, and have a low level of knowledge about HIV and AIDS are very likely to be stigmatized towards PLWHA. Education related to HIV and AIDS, especially how HIV and AIDS are transmitted, still needs to be improved so that it can reach all levels in society.

**Keyword:** HIV and AIDS, stigma, socio demography, PLHIV

### INTRODUCTION

In the social sciences, stigma is often referred to as the harsh criticism of someone because of what is perceived as a negative characteristic that sets them apart from others (Solanke, 2017). Stigma is a major social determinant of health that drives morbidity, mortality, and health disparities and has been described as a hidden burden of disease by *World Health Organization* (WHO, 2001). Stigma towards people with HIV/AIDS (PLWHA) is considered dangerous because it hinders the HIV/AIDS prevention process. The number of HIV cases reported in Indonesia, from April to June 2019 was 11,519, and 1,463 people (12.7%) had AIDS. The number of cases found and reported was Only 60.7% of the estimated cases (Ministry of Health, 2019).

The discrepancy between cases that are found, reported, and expected indicates a problem with finding and reporting (Ministry of Health, 2019). One of the causes of the difficulty in identifying PLWHA is the low level of public interest in screening *Voluntary Counseling and Testing (VCT)*. There are 72.9% of pregnant women in the Karanganyar Health Center area of Tasikmalaya City do not take advantage of VCT services (Dudi, Mulyanti & Nuraeni, 2019). Only 56.8% of men who have sex with men (MSM) in Jakarta use VCT (Widsono, A.F. & Nurfadhilah, 2020).

Society's stigma towards PLWHA affects a person's interest in VCT (Kelly, Weiser and Tsai, 2016; Aminuddin, A. and Kurniawati, 2017). The stigma against PLWA also contributes to the failure of opportunities for prevention, education, and treatment, thus undermining efforts to

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manage and prevent HIV transmission (Vorasane *et al.*, 2017). The impact of stigma on PLHIV also affects individuals, families, communities, and the healthcare system. For HIV-infected patients, the stigma of HIV makes it difficult for them to maintain their physical, mental, and emotional health (Lokko & Stone, 2016).

Many factors influence the occurrence of stigma against PLWHA, such as individual sociodemographic characteristics, including age, gender, marital status, education level, employment status, and economic status (Sari and Yovsyah, 2014; Li *et al.*, 2017; Maharani, 2017; Vorasane *et al.*, 2017; Mateveke *et al.*, 2016; Mawarni, Ismarwati and Indriani, 2017). Mass media exposure and type of residence also contribute to the stigmatization of PLWHA (Sari and Yovsyah, 2014). In other studies, religion, level of knowledge, and perceptions about HIV and AIDS were also causes of a person's attitude of being stigmatized towards PLWHA (Damalita, 2014; Stringer *et al.*, 2016; Maharani, 2017; Hati, Shaluhiyah and Suryoputro). Research to find out the response of the people of Heilongjiang, China to PLWHA found that 49.6% of people living in rural areas and 37% of people living in urban areas had a stigmatizing attitude towards PLWHA (Li *et al.*, 2017). The proportion of Indonesian youth who have a stigma toward PLWHA is 71.63% (Situmeang, Syarif & Mahkota, 2017). Research on stigma towards PLWHA among nurses in Jakarta found that 75.7% of nurses had an unfavorable attitude towards PLWHA (Urifah, 2017). Research on stigma towards PLWHA among housewives in Yogyakarta found that 65.6% of respondents had moderate stigma and 12.5% had severe stigma. (Aminuddin, A. & Kurniawati, 2017). Forty-four percent of people in Kupang City, East Nusa Tenggara Province, have a high stigma towards PLWHA, and there is a stigma of 26.1% in the family, 19.1% in the workplace, 55.8% in health services, 23.3% in the community, and 29.3% in the school

environment (Hati, Shaluhiyah & Suryoputro, 2017).

Therefore, there is a need for research related to the determinants of stigma against PLHIV to be used as a basis for making programs that are more targeted. This study aimed to analyze the determinants of stigma towards PLWHA in Indonesia.

## METHODS

This study uses data from the 2017 IDHS. We conducted an observational analytical study with a cross-sectional approach. The sample consisted of men and women in Indonesia, with 59,636 respondents to the 2017 IDHS. The inclusion criteria had heard about HIV/AIDS, and the data were missing, so the number of samples that met the inclusion criteria was 47,233.

The independent variables of this study were age, gender, marital status, education, level of welfare, employment, exposure to mass media (print, electronic, and internet), place of residence, and knowledge using the IDMR71SV male dataset and the IDIR71SV female dataset. The stigma against PLWHA is the dependent variable, sourced from the IDHS questionnaire section 7 HIV/AIDS (married male respondents used question numbers 720, 720A, 720B, 721, 726 – married female respondents used question nos 1035, 1035A, 1035B, 1036, and 1041). Education level was divided into two categories: low and sufficient education. The level of education is lower if the respondent's last education is  $\leq$  junior high school, while it is sufficient if the last education attained is  $>$  junior high school (Grieb *et al.*, 2017). The level of knowledge about HIV and AIDS was divided into two groups: poor and moderate. Poor knowledge was indicated if the respondent's correct answer score was  $<8$  of 12 questions, while the level of knowledge was moderate if the respondent's correct answer was  $\geq 8$  of 12 questions (Situmeang, Syarif and Mahkota, 2017).

Stigma against PLHIV is divided into two groups: yes and no stigma. The stigma category is if the respondent gets a score  $<4$  from the answers to questions about the willingness to care for an HIV-positive family, the willingness to keep buying fresh vegetables from shop owners or sellers even though they know that the seller is suffering from HIV-AIDS, consent for children suffering from HIV-AIDS must be allowed to go to school with children who do not suffer from HIV, the fear of getting HIV-AIDS if they come into contact with the saliva of someone who has HIVAIDS, and the desire to keep family members who suffer from HIVAIDS. The category is not stigmatized if the respondent receives a score  $\geq 4$  on the answers to the questions above (Situmeang, Syarif & Mahkota, 2017).

The data obtained from the DHS measure were analyzed in stages from univariable analysis to analysis of the frequency distribution of each variable, bivariable analysis with the chi-square test, and multivariate analysis with the logistic regression test using  $\alpha=0,05$ .

## RESULT

### Characteristic of respondent

the results of the descriptive analysis are presented in Table 1. This shows that the distribution of respondents who had heard of HIV and AIDS was highest in in those age range 35-39 years (15.7%) and 30-34 years (15,2%). The majority of respondents were women (83.1%), married (72%), and had poor education (78.1%). Based on economic status, most of the respondents belonged to the richest economic group (23,8%), and the fewest belonged to the poorest economy (15,6%).

Most of the respondents had occupations (61.1%) and have moderate

knowledge about HIV and AIDS (66.54%). The majority of respondents exposed to mass media (94.19), lived in urban areas (58.77 %), and had a stigma towards PLWHA (85.20%).

### Analysis of Bivariable

The results of the chi-squared analysis and odds ratios are presented in Table 2. Based on the information in table 2, the p-value of all variable characteristics respondents was  $\leq 0.05$ , so it can be interpreted that age, gender, marital status, education, wealth index, occupational status, exposure to mass media, residence, and knowledge had a significant difference in the proportion of stigma against PLHIV based on age, gender, marital status, education, wealth index, occupational status, exposure to mass media, residence, and knowledge.

Level of knowledge had the highest OR (2.85). The OR value means that someone who has less knowledge about HIV and AIDS is 2.85 times more at risk of being stigmatized by PLWHA than someone who is sufficiently knowledgeable. Two variables become protective factors: gender and place of residence. Male respondents and those living in urban areas had a smaller tendency to stigmatize PLHIV.

### Analysis of Multivariable

The multivariable analysis results with the enter logistic regression method in Table 3 show that the variables with a p-value  $\leq 0.05$  are age, gender, marital status, education, economic status, occupation, and knowledge. Thus, all the independent variables in this study were included in the multivariate analysis.

**Table 1.** Characteristics of the respondents

Variable	N	%
<b>Age</b>		
15-19	6.754	14,3
20-24	6.206	13,1
25-29	6.572	13,9
30-34	7.179	15,2
35-39	7.439	15,7
40-44	6.569	13,9
45-49	5.500	11,6
50-54	1.014	2,1
<b>Sex</b>		
Male	7.994	16,9
Female	39.239	83,1
<b>Marital Status</b>		
Separated/No Longer Living Together	125	0,3
Divorced	1.037	2,2
Widowed	585	1,2
Cohabitation	304	,6
Married	34.026	72,0
Never Married	11.156	23,6
<b>Education Level</b>		
Poor	36.910	78,1
Moderate	10.323	21,9
<b>Wealth Index</b>		
Poorest	7.376	15,6
Poor	8.676	18,4
Middle	9.517	20,1
Rich	10.436	22,1
Richest	11.228	23,8
<b>Occupational Status</b>		
No	18.389	38,9
Yes	28.844	61,1
<b>Mass Media Exposure</b>		
No	2.742	5,81
Yes	44.491	94,19
<b>Residence</b>		
Urban	27.757	58,77
Rural	19.476	41,23
<b>Knowledge Level</b>		
Poor	15.805	33,46
Moderate	31.428	66,54
<b>Stigma</b>		
No	6.992	14,8
Yes	40.241	85,2
<b>Total</b>	<b>47.233</b>	<b>100</b>

**Tabel 2.** Relationship between socio-demographic characteristics, media exposure, and knowledge about HIV and AIDS with stigma against PLWHA in Indonesia

Variable	Stigma of PLWHA				<i>p-value</i>	OR ( <i>Confidence Interval 95%</i> )
	No		Yes			
	n	%	n	%		
<b>Age</b>					0,000*	
15-19	744	1,58	6.010	12,72		1,54 (1,28-1,85)
20-24	804	1,70	5.402	11,44		1,28 (1,06-1,54)
25-29	935	1,98	5.637	11,93		1,15 (0,96-1,38)
30-34	1.088	2,30	6.091	12,90		1,06 (0,89-1,27)
35-39	1.274	2,70	6.165	13,05		0,92 (0,77-1,10)
40-44	1.105	2,34	5.464	11,57		0,94 (0,79-1,13)
45-49	880	1,86	4.620	9,78		1,00 (0,83-1,20)
50-54	162	0,34	852	1,80		1
<b>Sex</b>					0,000*	
Male	1.354	2,87	6.640	14,06		0,82 (0,77-0,88)
Female	5.638	11,94	33.601	71,14		1
<b>Marital Status</b>					0,015*	
Separated	18	0,04	107	0,23		0,97 (0,59-1,61)
Divorced	150	0,32	887	1,88		0,97 (0,81-1,16)
Widowed	95	0,20	490	1,04		0,84 (0,67-1,06)
Cohabitation	30	0,06	274	0,58		1,49 (1,02-2,18)
Married	5.132	10,87	28.894	61,17		0,92 (0,87-0,98)
Never Married	1.567	3,32	9.589	20,30		1
<b>Education Level</b>					0,000*	
Poor	4.948	10,48	31.962	67,67		1,60 (1,51-1,69)
Moderate	2.044	4,33	8.279	17,53		1
<b>Wealth Index</b>					0,000*	
Poorest	688	1,46	6.688	14,16		2,18 (1,99-2,39)
Poor	1.127	2,39	7.549	15,98		1,51 (1,39-1,63)
Middle	1.362	2,88	8.155	17,27		1,35 (1,25-1,45)
Rich	1.756	3,72	8.680	18,38		1,11 (1,04-1,19)
Richest	2.059	4,36	9.169	19,41		1
<b>Occupational Status</b>					0,000*	
No	2.371	5,02	4.621	9,78		1,29 (1,22-1,36)
Yes	16.018	33,91	24.223	51,28		1
<b>Mass Media Exposure</b>					0,000*	
No	303	0,64	2.439	5,16		1,42 (1,26-1,61)
Yes	6.689	14,16	37.802	80,03		1
<b>Residence</b>					0,000*	
Urban	4.433	9,39	23.324	49,38		0,80 (0,76-0,84)
Rural	2.559	5,42	16.917	35,82		1
<b>Knowledge Level</b>					0,000*	
Poor	1.167	2,47	14.638	30,99		2,85 (2,67-3,05)
Moderate	5.825	12,33	25.603	54,21		1

**Table 3.** Results of the determinant of socio demographic characteristics, media exposure and knowledge about HIV and AIDS with stigma against PLWHA in Indonesia

Variable	B	Wald	Sig.	OR	95% CI	
					Lower	Upper
<b>Age</b>		124,128	0,000*			
15-19	0,48	17,845	0,000*	1,611	1,291	2,010
20-24	0,36	11,849	0,001*	1,438	1,169	1,768
25-29	0,12	1,529	0,216	1,131	0,930	1,376
30-34	- 0,01	0,005	0,944	0,993	0,820	1,203
35-39	- 0,17	2,906	0,088	0,848	0,701	1,025
40-44	- 0,14	2,147	0,143	0,867	0,716	1,049
45-49	- 0,08	0,683	0,408	0,922	0,760	1,118
50-54				1		
<b>Gender</b>						
Male	- 0,18	21,773	0,000*	0,834	0,773	0,900
Female				1		
<b>Marital Status</b>		48,629	0,000*			
Separated	-0,029	0,013	0,910	0,971	0,588	1,605
Divorced	-0,034	0,137	0,711	0,966	0,806	1,158
Widowed	-0,171	2,195	0,138	0,843	0,672	1,057
Cohabitation	0,400	4,251	0,039*	1,493	1,020	2,184
Married	-0,083	7,142	0,008*	0,920	0,866	0,978
Never Married				1		
<b>Education Level</b>						
Poor	0,22	44,357	0,000*	1,247	1,169	1,331
Moderate				1		
<b>Wealth Index</b>		73,619	0,000*			
Poorest	0,41	56,231	0,000*	1,503	1,351	1,672
Poor	0,13	7,974	0,005*	1,134	1,039	1,237
Middle	0,08	3,499	0,061	1,080	0,996	1,170
Rich	- 0,03	0,575	0,448	0,972	0,904	1,046
Richest				1		
<b>Occupational Status</b>						
No	0,06	4,113	0,043*	1,065	1,002	1,133
Yes				1		
<b>Mass Media Exposure</b>						
No	0,04	0,447	0,504	1,045	0,918	1,190
Yes				1		
<b>Residence</b>						
Urban	0,04	1,947	0,163	1,043	0,983	1,106
Rural				1		
<b>Education Level</b>						
Poor	0,95	748,543	0,000*	2,588	2,417	2,770
Moderate				1		
<b>Constant</b>	0,91	68,593	0,000*	2,480		

\*Significance at  $\alpha < 0,05$ 

Table 3. also presents the odds ratio (OR), which indicates the risk of an event

occurring. Age 15-19 and 20-24, female sex, single, less educated, very poor and

poor economic status, unemployed, and lack of knowledge are risk factors for stigma against PLHIV because it has a p-value  $\leq 0.05$ , and  $OR > 1$ .

The value of  $E(Y/X)$  in the logistic regression is always between zero and one. Based on The equation model with a constant value of 0.908, it shows if a woman is 15-24 years old, single, has a low level of education, has a very poor or poor economic status, does not have a job, and lacks knowledge about HIV and AIDS, then the chance of having a stigmatizing attitude towards PLWHA is 97.4%. This can be observed based on the following calculations:

$$p = \frac{1}{1 + \exp(-y)}$$

$$y = \text{constant} + a_1X_1 + a_2X_2 + a_3X_3 + \dots + a_nX_n + \epsilon$$

$$y = 0,908 + 0,477T1(1) + 0,363T1(2) - 0,181T2(1) + 0,400T3(4) - 0,083T3(5) + 0,221T4(1) + 0,407T5(1) + 0,125T5(2) + 0,063T6(1) + 0,951T9(1) = 3,651$$

$$p = \frac{1}{1 + \exp(-4,713)}$$

$$p = 0,974$$

## DISCUSSION

Adolescent girls who are young, have less education than junior high school, have no occupation, come from poor or poorest families, and have poor knowledge about HIV and AIDS tend to have a stigmatizing attitude towards PLWHA. In other words, the results of the study show that there is a relationship between age and stigma towards PLWHA. The Odds Ratio (OR) value for each age group decreased as the respondent's age increased, which means that the older a person, the lower the risk of stigmatizing behavior toward PLWHA.

The results of this study align with those of Sari and Yovsyah (2014), which state that younger people are more at risk of being stigmatized by PLWHA than those who are older. Research on predictors of

stigma and discrimination against PLWHA in Jember District states that younger age (15-19 years) has a two times greater risk of being stigmatized towards PLWHA than older age (20-24 years) (Baroya, 2017). Research by Li *et al.* (2018) in China also stated that younger respondents were associated with greater stigma towards PLHIV.

Age is often associated with an individual's life experience and mental maturity, which leads to the level of acceptance of the differences and uniqueness of others (Hartini *et al.*, 2018). The level of acceptance which is still low compared to other age ranges causes respondents in the age range 15-19 years to have the highest percentage of stigma compared to other age ranges.

This study shows the relationship between the gender of the respondent and stigma towards PLWHA. Male sex had an OR value of 0.82 (95% CI: 0.77-0.88  $OR < 1$ ), which means that male sex is a protective factor for someone to be stigmatized against PLWHA. Therefore, it can be concluded that women are more at risk of being stigmatized by PLWHA than are men. The results of this study are supported by research by Lokko *et al.* (2016), where women have a greater potential than men to be stigmatized. Research by Baroya (2017) and Maharani (2017) also mention something similar: women are twice as likely to be stigmatized and discriminated against PLWHA than men. Women are more likely to be stigmatized than men because women have higher moral standards than men, and HIV and AIDS are often associated with immoral behavior (Vorasane *et al.*, 2017). Marital status in this study had a significant relationship and was a determinant of stigma towards PLWHA. This is in line with previous research that stated that someone married is less likely to be stigmatized by PLWHA than someone who is single or has never been married. (Mateveke *et al.*, 2016). A married person

is more tolerant toward others than a single or divorced person (Hartini *et al.*, 2018).

The results of this study indicate that there is a relationship between educational level and stigma toward PLHIV. Education level is also a determinant of stigma towards PLHIV. The results of this study support previous research stating that the lower a person's education level, the greater the likelihood of being stigmatized and discriminated against PLWHA (Baroya, 2017). Individuals with more than five years of education have a significantly lower risk of stigmatization than those with less than five years of education (Mateveke *et al.*, 2016). Educational level is generally associated with knowledge. The higher a person's education, the wider the information they receive and the more knowledge they have (Dharmawati & Wirata, 2016). This is why more respondents had a stigmatizing attitude towards PLHIV in the group with less knowledge than in the group with sufficient knowledge.

Economic status is related to stigma against PLWHA. The poorest family had an OR of 2.18 (95% CI 1.99-2.39), which indicates that very poor economic status is a risk factor for stigma against PLWHA. The OR value of economic status decreases as a person's economic status increases, meaning that the richer a person is, the less likely they are to be stigmatized against PLHIV. The results of this study are supported by the research of Mateveke *et al.* (2016), who stated that stigma was positively related to middle (OR = 1.73) and low (OR = 1.97) economic status. Maharani (2017) also mentions a similar matter, where people with low family economic status are 2 times more at risk to be stigmatized than people with high family economic status. HIV stigma continues to exist as social capital diminishes. Poor people tend to have limited access to health services (Lokko & Stone, 2016). This causes poor communities to be less exposed to correct health information, so the

potential for having a stigmatized attitude is even greater.

This research shows that employment status has a significant relationship with stigma toward PLWHA. The unemployed category had an OR value of 1.29 (OR > 1). An OR value > 1 indicates that not working is a risk factor for stigma against PLWHA, with a risk of 1.3 times greater than those with working status. Unemployed individuals have a two times greater risk of being stigmatized and discriminated against than someone working (Baroya, 2017). A reduced usable income after job loss creates financial constraints, so maintaining a minimum standard of living while still participating in social and cultural activities can be even more challenging. Unemployment is also a major factor in social exclusion; it can be a potential source of stress and can cause emotional, physical, and alienation. Sociologists and psychologists emphasize that termination can result in feelings of insecurity, shame, and stigmatization (Pohlan, 2019).

Exposure to mass media has a significant relationship with stigma against PLHIV. Someone who is not exposed to mass media is at risk of 1.4 times more being stigmatized compared than someone exposed to the media mass. This result is in line with Sari and Yovsyah's research (2014:14), where it is stated that people who do not utilize mass media have the potential 1.3 times higher to be stigmatized against PLHIV than people who use mass media more. This study also showed that there is a significant relationship between place of residence and stigma against PLHIV. This is in line with the findings of Situmeang *et al.* (2017:38), which state that residence has a significant relationship with stigma against PLHIV. The OR value of the place of residence in urban areas in this study was 0.80 (< 1), which means that living in an urban area is a protective factor against stigma of PLHIV Residential urban areas can also be a protective factor, meaning that someone who lives in a rural area is more at



risk of being stigmatized against PLWHA. This is in line with Sari and Yovsyah's research (2014:11), which states that people living in rural areas tend to be stigmatized more than those living in urban regions.

Lack of knowledge is a risk factor for the stigma against PLHIV. A person with a low level of knowledge about HIV and AIDS has a 2.9 times greater risk of being stigmatized than someone with sufficient knowledge. This is in line with Maharani (2017), who stated that respondents with low knowledge were three times more at risk of being highly stigmatized by PLWHA than respondents with good knowledge. Situmeang et al. (2017) also stated that respondents with less knowledge were 1.2 times more likely to have a stigmatizing attitude towards PLHIV. The stigma in the process is related to free and bound knowledge. This is because stigma can poison cognitive interactions and contaminate social relationships (Solanke, 2017). Ignorance and misinformation about HIV transmission, disease prognosis, and treatment options contribute to the stigma (Lokko & Stone, 2016).

## CONCLUSION

The following conclusions can be drawn based on the results of this study: The characteristics that contribute to stigma are age, gender, and marital status. Young age (15-29 years), female, living with a partner without marriage ties. Socioeconomic status was significantly associated with stigma. Those with low education, unemployed, poor, and low knowledge about HIV/AIDS are more likely to have a stigmatizing attitude towards PLHIV than those with higher education, wealthier economic status, employed, and good knowledge about HIV/AIDS. Meanwhile, exposure to the mass media and place of residence was not significant.

Based on the results of this study, there is a need to increase education for middle school-age children and women

regarding the methods of transmission and ways of identifying PLHIV/PLWHA through learning at school, extracurricular activities such as PMR, and optimizing the functions of the UKS Triassic, especially health education. It is also necessary to optimize the use of mainstream mass media, such as television advertisements, billboards, newspapers, and online media to increase public understanding of how HIV/AIDS is transmitted and how to identify people with HIV/AIDS. Thus, they can be easily accessed and can reach all levels of society.

This study had several limitations. First, researchers could not control data quality directly because the data used in this study were secondary data from the 2017 IDHS results. In addition, the variables analyzed in this study were limited to the data available in the 2017 IDHS dataset per the research objectives. During the implementation of the 2017 IDHS, the data collection method was based on a questionnaire. Bias by the interviewer was still possible even though, before conducting the interview, the interviewer was given training. Although there are some limitations related to the IDHS, the instruments used in the 2017 IDHS had good validity and reliability.

The results of this study need to be followed up with a policy on integrating HIV and AIDS materials into the basic education curriculum or integrated into extracurricular activities, such as the Youth Red Cross (MR), as well as optimizing the functions of the *Usaha Kesehatan Sekolah* (UKS), especially regarding the triad of adolescent reproductive health.

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