



The Impact of Source of Information on Teenagers' Knowledge of *Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS)*

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ABSTRACT

Background: The many cases of *Human Immunodeficiency Virus (HIV)/Acquired Immuno Deficiency Syndrom (AIDS)* in Indonesia within the age range of 25-49 years. Teenagers who are infected by HIV-AID in Indonesia shows an increasing number, misinformation and ignorance in teenagers are among the major causes of those increase. Teenagers are on a high risk since they have the tendency of involving in short term relationships with numerous partners. Therefore, to prevent further increase on the case, teenagers need to expand their source of informations and increase their knowledge n the matter. Researchers focused on studying the impact of source of informations towards the teenagers' knowledge. **Objective:** to find out the co-relations between source of informations towards teenagers' knowledge in a high school in in West Java. **Method:** Quantitative descriptive with cross sectional design. The number of samples taken are 99 respondents with purposive sampling technique and the statistic test using Chi Square test. **Result:** shows that there was significant correlations between the source of information on teenagers' knowledge on HIV/AIDS with *p-value* 0,000. There is a significant impact between sources of information towards teenagers' knowledge on HIV/AIDS. **Conclusion:** Increased knowledge on HIV-AID and understanding the steps on how to prevent the transmission became very important to encourage the teenagers to avoid getting infected by HIV/AIDS.

Keywords: *AIDS; HIV; Knowledge; Teenagers; Source of Information*

BACKGROUND

HIV/AIDS is a disease that is known to attack the body's immune system and causes fear for most people, because a cure has not been found. A person who contracts this disease can be said to have a low life expectancy. The phenomenon of people contracting HIV/AIDS is increasing rapidly in both developed and developed countries, including Indonesia. Several studies show that people with HIV/AIDS attack all elements. This disease not only attacks adults but also children and teenagers . With the increasing number of world teenagers aged 15-24 years who are infected with HIV (Calugi et al., 2011).

By 2022, 39 million people will be infected with HIV, 630,000 people will die from HIV. Africa still holds the record for the highest number of victims with 25.6 million people dying from HIV, followed by Southeast Asia and America with 3.9 million and 3.8 million people infected with HIV respectively (WHO, 2016). In Indonesia, the prevalence of HIV/AIDS from January – March 2023, of the 1,230,023 people tested, 13,279 people were infected with HIV/AIDS. Meanwhile, 4,188 people were confirmed to have AIDS, with a death rate of 0.22% (Humphrey et al., 2019). West Java is in third place with 57,914 cases of HIV infection and 12,353 confirmed cases of AIDS (Ivanova et al., 2018). Based on data released by the Bogor City Health Service in 2022, there were 408 reported cases of HIV infection and 1,744 people were registered as PLHA (People with HIV/AIDS).

Demographically, the number of people infected by HIV/AIDS found dominated by the age group of 25-49 years by 70,2%. The major cause of HIV/AIDS transmissions are risky sexual relations among heterosexuals (66.5%), homosexuals (10.4%), unknown factors (8.9%), and injection needles (7%). This ratio confirms the assumption that the major cause of HIV transmission is through risky sexual relations. Someone who is infected by HIV/AIDs on average does not require 5-10 years to shows symptoms which indicates they are most likely got infected by HIV/AIDS during their teenage years. The impact of HIV/AIDS since adolescence is that many people who are diagnosed with HIV too late during the course of their disease tend not to receive standard antiretroviral therapy, do not know that they are HIV positive and have limited knowledge exchange of information related to HIV/AIDS. This challenge is compounded by the shortage of infectious disease specialists and primary care physicians.

The problem of HIV/AIDS in adolescents not only has a negative physical impact, but can also affect mental health, emotions, economic conditions and social well-being in the long term. This not only affects teenagers themselves, but also their families, communities and nations (Ministry of Health In Indonesia, 2021).

Teenage years are human developmental stage which is very unique and also important stage to obtain proper education on basic health. During this stage, teenagers tend to act without prior thinking, which more involving their emotions and curiosity on certain things, actively involved in sexual experiments and other risky behaviour which among them HIV/AIDS. Due to those characteristics, teenagers need to be assisted and advised in regards to obtaining their knowledge on their sexual prowess (World Health Organisation, 2016).

Knowledge is obtained through several things such as hearing, sight, and reading books. education and knowledge related to reproductive health and sexual relations must be carried out as early as possible. Factors that influence knowledge are education, employment, age, interests, experience, environment and sources of information (Rujumba et al., 2012; Stallard et al., 2016).

The importance of quality information sources is the most important part of health promotion, especially HIV/AIDS prevention. Quality information can enable individuals and society to increase their ability to rely on factors that influence health so that they can improve their health status.

The efforts made by the Indonesian government are the policy of the Minister of Health Regulation Number 21 of 2013 concerning the Management of HIV and AIDS ("Permenkes 21/2013 article 5 states that the strategies used in carrying out HIV and AIDS prevention activities include: increasing community empowerment in the management of HIV and AIDS through national, regional and global cooperation in legal aspects, organization, financing, health service facilities and human resources; , quality, fair and evidence-based, by prioritizing preventive and promotive efforts; increasing the reach of services to high-risk community groups, disadvantaged, remote, border and island areas and health problems; increasing financing for HIV and AIDS prevention; increasing development and empowerment of resources equitable and quality human resources in the fight against HIV and AIDS; increasing the availability and affordability of treatment, supporting examinations for HIV and AIDS and ensuring the safety, usefulness and quality of drug preparations and materials/equipment needed in the fight against HIV and AIDS; and improving management of HIV and AIDS prevention that is accountable, transparent, efficient and effective. However, the obstacle faced is the current high number of HIV and AIDS cases due, among other things, to society's indifference in dealing with HIV and AIDS so far. This is caused by a lack of quality and targeted information.

Getting more knowledge requires a lot of reading and looking for various information. Information sources are a collection of information that has been grouped based on each category in the form of libraries, magazines, newspapers and websites which are useful for meeting the need for information or news. The most common information media obtained by teenagers are television, friends/relatives, newspapers/magazines, radio, and health professionals. The information that teenagers get will increase their knowledge. The more sources of information, the more knowledge about HIV/AIDS will increase (Chulach et al., 2016).

A preliminary study was carried out to determine the knowledge of students at the school by distributing questionnaires. So, the results obtained from 10 respondents were 6 people who had poor knowledge and 4 people who had good knowledge. From the results of a preliminary study conducted by researchers, it can be concluded that the average knowledge of teenagers about HIV/AIDS at the school is lacking. This study was confirmed by direct interviews with 15 students who asked about HIV/AIDS. From the results of these interviews, the researcher concluded that the knowledge of teenagers about HIV/AIDS was still lacking.

OBJECTIVE

The objective of this research is to analyze the relationship between information sources on teenagers' and knowledge about Human Immunodeficiency Virus (HIV)/ Acquired Immune Deficiency Syndrome (AIDS) in West Java.

METHOD

Research methods This is quantitative descriptive with *cross-sectional* design. The research is performed at a senior high school in West Java . The Population in this research is all boys and girls in their teenage period which consist of 1,065 students. The

sampling technique used in this research is *purposive sampling* with the total of 99 respondents. Source of data obtained are primary data by distributing questionnaires.

The questionnaire in this research has been tested for validity and reliability, the validity test was carried out with the same respondents as the sample in this study. Validity test results using the product moment Pearson correlation method. The test uses a two-sided test with a significance level of 0.05 which has an r table value of 0.361 for a sample of 30 people. It is said to be valid if $r_{count} > r_{table}$. Based on the results of reliability tests on all dimensions of service quality. The results of the reliability test using the Cronbach's Alpha method (using a statistical test program) show that the Cronbach's Alpha value for each dimension of good performance is > 0.7 , which means that all dimensions are reliable. consists of 20 question statement related to HIV/AIDS with 11 favorable statements and 9 unfavorable statements. Favorable statements are statements with positive and supporting nature in relations to the aspects of the variable, whereas unfavorable statements are negative and non-supportive nature in relations with to the aspects of the variable. The content of statements are HIV/AIDS related, from definition, symptoms, causes, methods of transmission, prevention and control about HIV/AIDS. Meanwhile, there are 20 statements which are source of information related. The content of statements itself are types source of information such as TV, films, videos, radio, books, posters, social media, seminars, friends, peers, parents, and others. During the implementation of the research it is stipulated that the respondents may choose more than one source information obtained (Leyva-Mora et al., 2017; Pinto et al., 2020).

This research ethics prepares the requirements before carrying out research, some of which are the principle of benefit: Every teenager in this research gets the benefit of additional insight related to HIV/AIDS knowledge and teenagers are free from danger (non-maleficence) and exploitation. The research carried out does not endanger lives and endanger teenagers. The principle of respecting the rights of respondents; Every teenager who took part in this research was given a consent form so that the respondent could know the aims and objectives of the research as well as the impacts that would be studied during the research process. They had to sign a consent form and if the respondent refused to be researched, the researcher would not force them and would still respect their rights. The confidentiality of information provided by teenagers is guaranteed by the researcher and only certain groups of data are in accordance with research needs that will be reported by the researcher (Fasoulakis, 2017; Hidayanti, 2016). Principles of justice; Adolescents who took part in this research were treated fairly and given the same rights.

RESULTS

Table 1 Distribution Frequency Based on Respondents' Characteristics

No	Respondents' Characteristics	N	%
1.	Gender		
	Female	79	79.8
	Male	20	20.2
	Total	99	100
2.	Age		
	Teenagers (14-16 years)	53	53.5
	Teenagers (17-20 years)	46	46.5
	Total	99	100

3.	Parents' Economic Status		
	Low (<Rp.2,500,000)	57	57.6
	Medium(Rp.2,500,000-4,500,000)	30	30.3
	High (>Rp.4,500,000)	12	12.1
	Total	99	100
4.	Parents' Education Level		
	Low (Primary to Middle School)	35	35.4
	Medium (high school/vocational school)	48	48.5
	High (University)	16	16.2
	Total	99	100

Based on table 1 above show distribution frequency respondents' characteristics based on gender dominated by female as many as 79 (79.8%). Whereas For teenager the mid teenager (14-16 years) has the most respondents as many as 53 (53.5%). In Parents' economic status, the low economic status category (<Rp. 2,500,000) dominated the respondent with 57 people (57.6%). Whereas For characteristics parents' education level, the medium education category (SMA/SMK) dominated the respondent with 48 people (48.5%).

Table 2 Distribution Frequency Based on Source Information and Teenagers' Knowledge

No	Variable	N	%
1.	Source Information		
	Deficient (≤ 2 sources)	79	79.8
	Sufficient (> 3 sources)	20	20.2
	Total	99	100
2.	Knowledge		
	Lacking (mean<69.65)	32	32.3
	Good (mean $\geq 69,650$)	67	67.7
	Total	99	100

Based on table 2 above, it shows that the distribution frequency of respondents based on information sources is dominated by the category of sufficient information sources (> 3) with 53 people (53.5). Meanwhile, the knowledge variable was dominated by the good knowledge category with 67 people (67.7%).

Table 3 The Correlation of Source Information Towards Teenagers' Knowledge About HIV/AIDS

Source Information	Knowledge						P-Value
	Not enough		Good		Total		
	N	%	N	%	N	%	
Not enough (<2 sources)	25	54.3	21	45.7	46	46.0	
Enough (>3 sources)	7	13.2	46	86.8	53	53.0	< 0,001
Total	32	32.3	67	67.7	99	100	

From table 3 above the group of teenagers getting source information enough (>3 sources) with level Good knowledge of HIV/AIDS totaling 46 respondents (86.8%) which is greater compared to the group of teenagers who get Insufficient source information (<2 sources) with level knowledge Good totaling 21 respondents (45.7%). Statistical test results were shows that there is significant influence between source information towards teenagers' knowledge about HIV/AIDS with p -value $0.000 < 0.005$.

DISCUSSION

The result of the study shows that the group of teenagers who has enough source of information (>3 source) with good level of knowledge regarding HIV/AIDS is at 46 respondents (86,8%) which means at a bigger proportion compared to the group of teenagers who are lacking in source of information (<2 source) with good level of knowledge at 21 respondents (45,7%). Chi Square analysis obtained *P value* = 0,000 (<0,05) which means there is a correlation between source of information towards teenagers' knowledge of HIV/AIDS.

Other study parallel to this research is the research by (Calugi et al., 2011) with a conclusion some teenagers in another city have good knowledge regarding HIV/AIDS as many as 25 persons (35,7%) with p value = 0,001 which means there is a significant correlation between attitude in preventing HIV/AIDS towards teenagers' knowledge. Other study parallel to this research is with the result showing good level of knowledge with numerous source of information totaling 37 persons (74%) with P value 0,001 which means there is a significant correlation between source of information and peers with teenagers' knowledge regarding the transmission of HIV/AIDS (Shaluhayah, 2017; Venugopal et al., 2017).

Knowledge as a result of knowing after people doing their sensing towards certain object. Sensing occurs through the five human senses, such as the senses of sight, smell, taste and touch. Most human knowledge is acquired through the eyes and ears. Knowledge is needed as support in creating self-confidence as well as daily attitudes and behavior (Notoatmodjo, 2012). The more sources of information obtain whether in the format of printed media, such as poster, leaflet, brochures, pamphlet, books and magazines (Moghadam et al., 2016; Sherrard et al., 2011). Electronic media such as social media, journal, e-book, etc., the better level of knowledge can be obtained. All of the Information received will form new understanding and behavior which will bring up confidence and influence to behavior, though behavior can formed without through a belief process if information submitted effective (Suryavanshi et al., 2020).

This research learned that students have had many sources of information and getting information regarding HIV/AIDS. The teenagers' need to find out about an information made them curious and find out, hence the result of such information will elevate the knowledge level of the students. The information obtained was dominated by social media, books, peers, parents and teacher (McLeish & Redshaw, 2016).

This study is also in line with research conducted by (Abteu et al., 2016) with the obtained p value 0.001 (<0.05) where obtained results that there is a correlation between exposure of source information with teenagers' knowledge at SMAN 1 Rantau Utara. Information will give influence on someone's knowledge. Despite having low level of education, if given correct and valid information from various media such as TV, Radio, or newspaper hence it will increase the knowledge level (Ross et al., 2018). The more often people hear or see information the more possibility for them to have better insight and improve their knowledge on the matter. Mental readiness of adolescents can be seen through teenagers' perception towards reproductive health. Among the factors influencing the perception is the knowledge regarding reproductive health. Study shows that only small part of teenagers in Indonesia have knowledge about reproduction and few get information about reproductive health from competent source. The main problem that often occurs in teenagers is the lack of information about reproductive health.

CONCLUSION

Sources of information have a significant effect on teenagers' knowledge about HIV/AIDS. The majority of sources of information obtained by teenagers are quite good (>3 sources) such as social media, television, videos and good knowledge is obtained. Even though the majority of teenagers receive sufficient sources of information and good knowledge, additional sources of information are still being provided such as making posters, leaflets, counseling with health workers in collaboration with schools, seminars, etc. It is hoped that health education programs about reproductive health, especially HIV/AIDS, will be included in additional subjects that are given regularly so that the level of knowledge of high school students increases. The more source of information obtained; the better teenagers' knowledge will increase. The recommendation in this research is that there is an information forum on a website that contains detailed information about HIV/AIDS.

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