



IDENTIFYING THE UNDERSTANDING OF THE PEOPLE LIVING WITH HIV REGARDING PREVENTING HIV TRANSMISSION IN JAYAPURA CITY, INDONESIA

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ABSTRACT

Background: Human Immunodeficiency Virus is a virus that can attack and reduce the human immune system, causing various symptoms of the disease called AIDS. Prevention is very important for people living with HIV in order to break the chain of HIV transmission. The aim of this research is to identify the understanding of the people living with HIV regarding preventing HIV transmission in Jayapura City.

Method: The type of research is quantitative analytic with a cross sectional design. The research was conducted at the Waena and Hebebhulu Yoka Community Health Centers in June-July 2023. The respondents in this study were PLWHA who came to take medicine at the community health centers. Using a saturated sampling technique, there were 63 respondents. The measuring instrument used was a questionnaire, data was analyzed univariately and bivariately using the chi-square test ($\alpha < 0.05$).

Results: The majority of respondents were adults (92.1%), the majority of gender was female (58.7%), high education (79.4%), not working (54.0%), the majority of marital status was unmarried. (52.4%), information about HIV through print media (81%), direct media from health workers (74.6%), good understanding regarding preventing HIV transmission (69.8%). The results of the chi-square test showed a relationship between understanding of PLWHA and actions to prevent HIV transmission in Jayapura City (p -value = $0.005 < 0.05$).

Conclusion: PLWHA will undergo regular treatment and take preventive measures so as not to infect partners or other people.

Keywords: *HIV, understanding, HIV prevention, transmission*

INTRODUCTION

PLWHA are people with (Human Immunodeficiency Virus) or a virus that attacks the body's immune system, causing a condition called AIDS. HIV is a virus that can attack and reduce the human immune system, especially white blood cells called CD4 cells, causing various symptoms of the disease called AIDS to appear. Acquired Immune Deficiency Syndrome (AIDS) is a group of symptoms that arise due to a decrease in the body's immunity caused by HIV infection ⁽¹⁾.

The problem of HIV and AIDS is a big problem that threatens many developed and developing countries even though various efforts have been made to control and suppress its transmission. Based on global reports, in 2022 there will be around 39 million people worldwide living with HIV, 37.5 million are adults and 1.5 million are children under 15 years. The highest percentage of HIV sufferers are women at 53%, so far 40.4 million people have died from AIDS. Globally, the highest cases of HIV are in the Africa and Asia Pacific regions ⁽²⁾.

Indonesia is one of the countries in Asia that is vulnerable to HIV due to the impact of economic and social changes. Indonesia ranks first in terms of HIV cases in Southeast Asia with 630 thousand cases, Thailand 440 thousand cases, Vietnam 250 thousand cases and Myanmar 220 thousand cases ⁽³⁾. In Indonesia, in the period January-June 2022, the number of people with HIV found was as high as 22,331 people out of 2,018,641 people were tested for HIV, and 18,479 people received ARV treatment (82.8%). Of the number of HIV sufferers found, the majority were in the 25-49 year age group (68.1%). Based on gender, the percentage of HIV sufferers found in men is 70% and women is 30%. The cumulative number of HIV/AIDS cases discovered from 2009 to June 2022 is 478,784 cases ⁽⁴⁾.

The Papua Provincial Health Service reported that 43,219 of the 3.3 million Papuan population were living with HIV in 2020. Papua Province was in sixth place in the discovery of new HIV cases found in the January - June 2022 period with 1,126 people. Based on data from the Jayapura City Health Service from 2019 - 2022, the number of people with HIV who have received HIV care is 383,220 people, with 185,922 men and 197,298 women. Of the number of HIV sufferers found, the largest number of cases was in the 25-49 year age group with a total of 124,922 men and 109,547 women ⁽⁵⁾.

Waena and Yoka Health Centers are the health centers with the highest HIV and AIDS cases in Jayapura City based on data from the last three years. In 2020, HIV cases at Waena Health Center reached 910 and at Yoka Health Center 286, in 2021 there will be 26 cases at Waena Health Center and 10 cases in Yoka, and in 2022 there will be 32 cases at Waena Health Center and 28 cases in Yoka. The form of HIV prevention and control at the Waena and Yoka Community Health Centers is by providing VCT tests and taking ARV drugs.

HIV is transmitted through sexual intercourse, blood and organ transfusions, using the same injection needles as HIV sufferers, pregnant women who are HIV positive to their babies. The blood, vaginal fluids, semen and breast milk of HIV-infected mothers contain enough virus to infect other people. The HIV virus can be transmitted if you have unsafe sex. HIV is not transmitted by just kissing unless there are serious wounds in the mouth and bleeding gums, hugging, using a shared toilet, touching, using shared eating utensils, mosquito bites, and living in the same house as PLWHA.

Several actions to prevent the transmission of HIV/AIDS are not having sexual relations outside of marriage and

having contact with one sexual partner, using condoms, especially for high risk groups, following programs to prevent HIV transmission from mother to child, people belonging to high risk groups should not be blood donors, do not use drugs, especially injectable drugs, and exercise caution ⁽⁶⁾.

There are several factors that influence PLWHA's preventive actions on other people, including knowledge, attitudes, age, gender, marital status, level of education, employment, length of time suffering from HIV/AIDS and status of receiving ARVs. However, globally HIV transmission is caused by a lack of knowledge ⁽⁷⁾. Low knowledge has an impact on poor behavior. However, any knowledge that is not understood is just memory that cannot be used for anything. In efforts to prevent transmission, understanding HIV plays an important role. PLWHA must understand HIV transmission and prevention so that they do not risk infecting others.

Based on the description above, researchers are interested in examining the understanding of PLWHA regarding preventing HIV/AIDS transmission in Jayapura City.

METHODS

This type of research is quantitative analytic with cross sectional design. The research was conducted at the Waena Health Center and Hebebhulu Yoka Health Center in June-July 2023. The sampling technique is saturated sampling with a sample size of 110 respondents, but when the research was conducted there were 21 patients who did not come to take medicine at the health center and 26 other patients refused to be respondents so that researchers only got 63 respondents. The measuring instrument used was a questionnaire. To measure understanding using the awareness and knowledge questionnaire from Alemagno (2013) and

Khasanah (2019) which has been modified according to the needs of researchers containing 10 questions. The scale used is a Guttman scale with two answer options, namely: true and false. The minimum score for the questionnaire was 0 and the maximum score was 10. To measure the prevention of transmission by PLWHA using a questionnaire modified from Khasanah's research (2019) and developed based on ABCDE prevention theory contains 5 questions. The scale used is a Guttman scale with yes and no answer options. The correct answer is given a score of 1 and the wrong answer is given a score of 0. Data were analyzed univariately and bivariately using the chi-square test.

RESULTS

Table 1. Frequency distribution based on characteristics of PLWHA

Characteristics	n=63	(%)
Age		
Teenager	4	6.3
Adult	58	92.1
Elderly	1	1,6
Gender		
Man	26	41.3
Woman	37	58.7
Last education		
Low (Elementary, Middle School)	13	20.6
High (high school, college)	50	79.4
Employment status		
Work	29	46.0
Doesn't work	34	54.0
Marital status		
Marry	30	47.6
Not married	33	52.4

In table 1, it can be seen that the majority of PLWHA fall into the adult age category, namely 58 people (92.1%), the largest gender is 37 people (58.7%) women, 50 people (79.4%) with higher education. If we look at employment status, more than half of PLWHA do not work, namely 34 people (54.0%), the highest

marital status is unmarried, 33 people (52.4%).

Table 2. Distribution of sources of information about preventing HIV/AIDS transmission

Information source variables	n=63	%
Print media		
Read booklets, leaflets and posters about HIV and AIDS	51	81
Electronic media		
Watch health programs about HIV and AIDS on the internet	14	22.2
Watch a film that tells the story of HIV and AIDS survivors	7	11.1
Watch public service announcements about HIV and AIDS	31	49.2
Social media		
Read information about HIV and AIDS on social media accounts of the Ministry of Health/other social institutions	20	31.7
Listen to podcasts about HIV and AIDS	12	19
Outdoor media		
Read banners and billboards regarding HIV and AIDS prevention	43	68
Live media		
Get counseling from health workers	47	74.6
Family	25	37.7

Based on table 2, it is known that the media most widely used by PLWHA to access information regarding preventing HIV transmission is print media by reading booklets, leaflets and posters about HIV and AIDS as many as 51 people (81%). Meanwhile, the least accessed media by PLWHA is electronic media, with 7 people (11.1%) watching films about HIV and AIDS survivors.

Table 3. Relationship between understanding and actions to prevent HIV AIDS transmission by PLWHA

Understanding	Measures to prevent HIV transmission				p-value	PR CI 95%
	Not enough		Good			
	n	%	n	%		
Not enough	15	23.8	4	6.4	0.005	6,563 (1,857-23,192)
Good	16	25.4	28	44.4		
Total	31	49.2	32	50.8		

*PR= Prevalence Ratio

Based on table 3, it is known that of the 19 people (30.2%) who had poor understanding, 15 people (23.8%) had inadequate preventive measures for HIV transmission and 4 people (6.3%) had good preventive measures. Meanwhile, of the 44 people (69.8%) who had good understanding, 16 people (25.4%) had inadequate preventive measures for HIV transmission and 28 people (44%) had good preventive measures. Statistical test results were obtained p-value $0.005 < 0.05$, and PR value = 6.563 (95% CI: 1.857 – 23.192) which shows that there is a significant relationship between PLWHA's understanding of HIV and AIDS transmission prevention measures in Jayapura City and PLWHA who have less understanding regarding HIV transmission prevention 6.563 times risk of not preventing HIV transmission.

DISCUSSION

Based on the results of analysis using the Chi square test value is obtained p-value $0.005 < 0.05$, which means there is a significant relationship between understanding of PLWHA and measures to prevent HIV AIDS transmission in Jayapura City. The results of this analysis explain that a good understanding of HIV transmission will have an impact on good actions in preventing HIV transmission. Based on the results of the analysis, an PR

value of 6,563 was obtained, meaning that PLWHA who had a poor understanding of preventing HIV transmission were 6,563 times more likely to not prevent HIV transmission.

The results of this research are in accordance with the theory of Lawrence W. Green (1980) in Priyoto (2018), namely that a person's health behavior is influenced by 3 main factors, namely: predisposing, enabling and driving factors. Understanding is included in the predisposing factors which are factors that facilitate, underlie or motivate to carry out an action, the values and needs that are felt. Understanding is the ability to explain correctly about a known object which is obtained through the process of sensing an object through sight, hearing, smell, taste and touch. Respondents with a good understanding of preventing HIV transmission and taking action to prevent HIV transmission means that the respondent applies the results of what they understand.

However, based on the answers to 10 statements of understanding about HIV prevention, there are still four questions that many PLWHA answered incorrectly, namely the statement that not having sex outside of marriage is one way of preventing HIV transmission (25.4%), bathing or washing private parts after sex prevents a person from contracting HIV (54%), a woman cannot contract HIV if she has sexual intercourse during her menstrual period (38.1%) and women who are HIV positive are advised not to get pregnant because it can infect their baby (61.9%).

Someone who has sexual relations before marriage tends to change partners and does not use condoms, making it easy for them to become infected with HIV. According to research Ilham et al., (2023) unmarried respondents tend not to consistently use condoms because if they are not married, respondents still have economic dependence. All his needs are still met by his family because he doesn't

have his own income, especially to buy condoms⁽⁸⁾.

Bathing, or washing private parts after sex does not guarantee that a person will not contract HIV because during sexual intercourse, semen, vaginal fluids and blood can come into contact with the mucous membranes of the vagina, penis, anus or mouth so that the HIV virus contained in these fluids can already enter the body through the bloodstream so washing private parts does not make the virus come out again⁽⁹⁾.

Having sexual intercourse through the vagina during menstruation carries the risk of transmitting HIV from woman to man and vice versa. HIV transmission occurs more easily during menstruation because the cervix is wide open and the production of cervical mucus is reduced, making it susceptible to injury around the vagina or penis during sexual intercourse. Apart from the risk of transmitting HIV, sexual intercourse during menstruation also carries the risk of causing endometriosis⁽¹⁰⁾.

A woman who is HIV-positive can transmit the virus to her baby during pregnancy, childbirth, or breastfeeding. The process of transmitting HIV from mother to fetus occurs through the placental cord where the fetus gets food, in this process there is an exchange of blood containing the HIV virus. HIV transmission can also occur through breast milk and can even increase up to two times. HIV can be contained in breast milk in quite large quantities. The risk of transmission through breast milk can reach 5 to 20 percent. HIV positive women and their partners need to plan carefully before having children because special conditions are needed that are safe for pregnancy, childbirth, postpartum and breastfeeding. Prevention of HIV transmission from mother to child can be done by regularly taking ARV medication, preventing unwanted pregnancies, and providing formula milk⁽¹¹⁾.

The results of this study also show that there are still many respondents who have little awareness or don't care about the dangers of being infected with HIV AIDS and therefore don't care about the actions they take. Based on PLWHA's answers regarding actions, it was concluded that there was a lack of action to prevent the transmission of HIV and AIDS because there were still many respondents who had sexual relations before marriage (55.6%), were unfaithful to one partner (34.9%) and did not use condoms during sexual intercourse (46 %).

Sexual behavior outside of marriage or changing sexual partners without using a condom is a risky behavior for transmitting or contracting HIV. The more often you change sexual partners, the greater the risk of HIV transmission. According to research Refti (2018) there is a relationship between the behavior of having multiple sexual partners and the incidence of STI and HIV $P=0.001$ and $PR; 6.6$, which means that people who frequently change sexual partners are at 6.6 times greater risk of being infected with STI and HIV AIDS⁽¹²⁾.

According to research Handayani (2018) there is a significant relationship between consistent condom use and HIV incidence, $P=0.044$. Using condoms is an effective way to prevent HIV transmission through sexual intercourse, and can even reduce the risk of HIV transmission by 90-95 percent. Condoms can only prevent HIV transmission if they are used correctly, such as using condoms only once, not using expired condoms, and storing condoms in a good place to avoid leaks and using condoms made from synthetic materials latex or polyurethane because it has pores 10 times smaller than sperm so it is considered effective enough to prevent the entry of the HIV virus⁽¹³⁾.

An active role is needed from PLWHA to break the chain of HIV/AIDS transmission. PLWHA prevent HIV transmission by understanding how to transmit and prevent HIV well, therefore,

effective and efficient counseling and socialization is needed to increase the understanding of PLWHA.

The shortcomings of this study are that it cannot represent the overall results of the city of Jayapura because researchers only took the health center with the highest HIV / AIDS cases to be used as a research site.

CONCLUSION

There is a significant relationship between the understanding of PLWHA and the prevention of HIV/AIDS transmission in Jayapura city. The relationship is positive so that the higher the understanding, the better the prevention of HIV/AIDS transmission. This is in accordance with the expectations of my research, namely the higher the understanding of PLWHA, the better the prevention measures where the majority of respondents have a good understanding of 44 people (69.8%) and the majority of respondents have good prevention measures, namely 32 people (50.8%).

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