

Level of Knowledge and Compliance in Taking Antiretroviral Drugs in HIV/AIDS Patients

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ABSTRACT

Introduction: HIV and AIDS is one of the health problems in Indonesia that has been very worrying, this can be seen from the prevalence of HIV and AIDS in Indonesia, especially in sentani district.

Objective: This study aims to determine the relationship between the level of infection with minimal treatment of antiretroviral drugs (ARV) that cause HIV/AIDS in polyclinics Puskesmas Harapan.

Methods: In this study using descriptive design method of analysis with Cross Sectional measurements. The population in this study was all patients diagnosed with HIV and undergoing antiretroviral therapy at the Harapan Health Center Polyclinic. The number of respondents in this study as many as 25, the variables of this study using univariate and bivariate using chi-Square statistical test.

Results: The results were obtained at the level of achievement of 25 respondents with a level of achievement of (80%), while the respondents adequately meet the target of Antiretroviral (ARV) in the high category with the number of respondents 13 with a stick percentage (52%), There is a significant relationship between the achievement of PLWHA with the highest achievement of Antiretroviral (ARV) in the high category with the number of respondents 13 with a stick percentage (52%) (ARV) with a p value of 0.007.

Conclusion: is that there is a relationship between knowledge and knowledge about Antiretroviral drugs in patients with HIV / AIDS in the Hope Health Center Polyclinic. In order to further improve its services to the wider community in providing correct and complete information to the wider community from non-compliance or disconnection of antiretroviral drugs.

Keywords : HIV / AIDS, knowledge, compliance

INTRODUCTION

The cause of the onset of HIV / AIDS has not been fully elucidated. Not everyone who is infected with the HIV virus is infected with AIDS. There are several other factors that contribute to the onset of AIDS in HIV patients including the use of alcohol and drugs that are not sterile, malnutrition, high levels of stress and the presence of other diseases, especially diseases transmitted through the genitals. HIV continuously weakens the immune system by attacking and destroying certain groups of white blood cells, namely T-helper cells. Normally, these T-helper cells (called T4 cells) play an important role in preventing infection.

Upon the onset of an infection, these cells proliferate swiftly, indicating to other components of the immune system that an infection is present. Consequently, the body generates antibodies that target and eliminate detrimental germs and viruses. T-helper cells not only activate the immune system to combat infection but also communicate with T-suppressor cells, or T8S, to indicate when to cease the immunological response. Generally, there are more T-helper cells in the blood than T-suppressor cells. The proportion of T-helper cells to T-suppressor cells in a healthy immune system is roughly 2:1. AIDS

patients, on the other hand, have the opposite ratio, with more T-suppressor cells than T-helper cells. Thus, AIDS patients not only exhibit a deficiency of T-helper cells, which are crucial for infection prevention, but also experience the presence of attacking cells that target the functioning helper cells, leading to a compromised immune system and increased susceptibility to disease.

People who suffer from HIV / AIDS are referred to as ODHA. Studies conducted by (Asra et al., 2020) mentioned that until now ODHA still gets a negative stigma. ODHA has unfavorable treatment, is undervalued, and faces discrimination that may adversely affect ODHA. Individuals living with HIV/AIDS are profoundly affected by those who exhibit insufficient knowledge, anxiety, fear, and rejection. Currently, HIV disease is intractable; however, pharmacological interventions can still impede its infection and replication (Safitri et al., 2019).

Vianitati's 2019 research revealed that frequent exposure to information is one of the key factors in a person's successful ARV treatment, and is also influenced by education level, age, and length of treatment. The greater a person's knowledge and the greater their exposure to information related to HIV and AIDS, the more likely they are to behave better than before. To improve the success of treatment for patients, it is important to emphasize and increase knowledge through health education and provide strong counseling on medication adherence.

MATERIALS AND METHODS

The research used is a descriptive analytical research design with a cross sectional approach, this study was conducted at the Hope Health Center Polyclinic of Sentani Regency against 25 respondents, taken by purposive sampling technique. Sample inclusion criteria are PLWHA who can read and write, have passed basic education and are using PLWHA.

Data collection for the level of knowledge related to HIV / AIDS using HIV/AIDS knowledge questionnaire containing 22 units of questions and prepared by the researcher. While to measure the level of adherence to antiretroviral therapy, data were taken using 3 questionnaires.

Validity and reliability tests have been conducted with the results of $r_{hitung} > r_{table}$ (0.355) and the results of Alpha cronbach reliability coefficient of 0.735, which indicates that the questionnaire used has been valid and reliable. As for the questionnaire of knowledge about HIV/AIDS, especially PLWHA.

RESULTS

A. Univariat Analysis. In this univariate analysis will be explained each of the variables studied, both independent and dependent variables. To see an overview of each of these variables can be seen in

Table 1 Frequency Distribution Based on Demographic Characteristics of Patients with HIV/AIDS at the Harapan Health Center Polyclinic.

No	Respondent Characteristics	Category (N=25)	Frequency (N=25)	Percentase (100%)
1	Gender	Man	7	28%
		Woman	18	72%
2	Age	Teenagers	0	0%
		Early Adulthood	16	64%
		Late Adulthood	9	36%

3	Education	SD	2	8%
		SMP	0	0%
		SMA	20	80%
		College	3	12%
4	Work	PNS	1	4%
		Wiraswasta	4	16%
		Karyawan	2	8%
		Buruh	2	8%
		Tidak Bekerja	16	64%

Based on **table 1.** above, the following conclusions can be drawn:

1. Gender The characteristics of the gender of HIV/AIDS sufferers who take ARV drugs at the Harapan Health Center Polyclinic show that the number of female respondents is greater (72%) than male respondents, which is 7 respondents with a percentage level (28%). The analysis results indicate that 72% of the subjects are female, which indicated that among 25 HIV/AIDS respondents, all were male, with 7 respondents (28%).
2. Chronological age The analysis of respondents with HIV/AIDS receiving ARV treatment at the Harapan Health Center Polyclinic revealed that the predominant age group was early adulthood, comprising 16 individuals, which corresponds to 64%, whereas the late adulthood category included 9 individuals, accounting for 36%. The research results indicated that the majority were in early adulthood at 64%.
3. Instruction The analysis of respondents with HIV/AIDS receiving ARV treatment at the Harapan Health Center Polyclinic revealed that the majority, including 20 individuals, possessed a high school education, accounting for 80% of the sample.
4. Profession The educational background of respondents with HIV/AIDS receiving ARV treatment at the Harapan Health Center Polyclinic indicates that the majority, comprising 16 individuals, are unemployed, representing 64% of the total respondents. The data indicates that 16% of individuals with HIV/AIDS on antiretroviral (ARV) treatment are mostly self-employed. This aligns with Inga Ifada's research (2010), which revealed that among 25 respondents, there was 1 civil servant (4%), 2 employees (8%), and 2 laborers (8%), indicating that the majority of HIV/AIDS respondents receiving treatment are not civil servants. People with HIV/AIDS' adherence to ARV treatment is greatly influenced by their occupation.

Table 2. Characteristics of respondents based on research variables (level of knowledge of taking antiretroviral drugs)

No	Variabel	Kategori	Frekuensi (N=25)	Percentase (100%)
1	Knowledge	low	3	12%
		Medium	2	8%
		Height	20	80%
2	Compliance taking antiretroviral drugs	Low	5	20%
		Medium	7	28%
		Height	13	52%

Table 2 showed that among respondents with HIV / AIDS undergoing antiretroviral therapy, the majority consisted of 20 people (80%), extensive knowledge of antiretroviral therapy can provide more motivation in the attitude towards adherence in the treatment of antiretroviral therapy (Martiana et al, 2019). Individuals who have great potential good knowledge in carrying out ARV therapy treatment with understanding can have a great influence on attitude and compliance (Isnaini et al, 2023). Although there were three individuals in the low Category (12%) with a percentage rate, there were two individuals in the medium category (8%). With a frequency of 13 and a percentage of 52%, the high category has the highest compliance rate. The middle category has a frequency of 7, corresponding to 28%, while the low category has a frequency of 5, totaling 20%.

B. Bivariate Analysis

The objective of bivariate analysis is to investigate the correlation between the independent and dependent variabels. Table 3 illustrates the link in the following manner:

Variabel		Knowledge						Total	%	P value	C
		Low		Medium		Height					
		N	%	N	%	N	%				
Compilience	Low	3	100%	0	0,0 %	0	0,0%	3	100,0%	0,007	0,599
	Medium	0	0,0%	1	50 %	1	50%	2	100,0%		
	Height	2	10%	6	30 %	12	60%	20	100,0%		
Total		5	20%	7	28 %	13	52%	25	100,0%		

The table above indicates that the knowledge level categorized as high includes 20 responses, representing 80% of the total. The highest compliance level is represented by 12 responders, constituting 60% of the total. A p-value of 0.007 was obtained from the statistical tests, suggesting that a significant correlation exists between adherence to antiretroviral medication and knowledge levels at a 95% confidence level (alpha 5%).

DISCUSSION

The statistical analyses produced a p-value of 0.007, signifying a strong correlation between knowledge levels and compliance with Antiretroviral medication intake. This is consistent with the perspectives of Lawrence Green and Marshall Kreuter as presented in Sciavo (2007). Asserting that an individual's knowledge is a predisposing factor influencing behavioral change. According to Siswanto et al (2010).

Compliance must be consistently checked and frequently assessed during drug collection trips. The accurate diagnosis, appropriate medicine selection, and administration by healthcare professionals do not ensure therapeutic success in the presence of patient noncompliance with medication regimens. Furthermore, engaging cadres can enhance the oversight of ARV therapy programs (Kurniawan et al., 2023)

The incidence of HIV/AIDS must be reduced by improving the compliance of individuals living with HIV/AIDS to antiretroviral therapy. Improving the role of nurses may also reduce non-compliance and attrition (Kurniawan et al., 2022).

The findings of the 2010 Riskesdas indicated that 57.5 percent of those aged 15 and older were aware of HIV/AIDS. A high percentage does not ensure comprehensive knowledge of HIV/AIDS transmission. Over fifty percent of the public is aware of HIV transmission via unprotected sexual intercourse and the utilization of shared needles, namely 51.4 percent and 46.6 percent, respectively, as well as through unsafe blood transfusions. 38.1 percent of the community is aware that HIV/AIDS can be transmitted from mother to child during pregnancy, 39.0 percent after childbirth, and 37.4 percent during breastfeeding (Ministry of Health, 2010).

CONCLUSIONS

The results are from a study conducted with 25 participants at the Harapan Puskesmas Polyclinic in Sentani Regency. The results regarding the correlation between knowledge and adherence to antiretroviral therapy (ARV) in HIV/AIDS patients are as follows: 1. The demographic profile reveals that 64% are in early adulthood, 72% are women, 80% have reached higher education, 64% are unemployed, 80% show a high level of knowledge, and 52% comply with prescription rules. There is a correlation between the level of knowledge and adherence to antiretroviral treatment in HIV / AIDS patients at the Hope Health Center Polyclinic, indicated by a P value of 0.007. There should be efforts to increase compliance in HIV patients by paying attention to factors other than knowledge about HIV/ AIDS, such as motivation, antiretroviral side effects experienced PLWHA, or support needed by PLWHA

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Conflict of Interest

There is no conflict of interest in this research

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