



**ANALYSIS OF FACTORS AFFECTING COMPLIANCE ANTIRETROVIRAL
TREATMENT IN HIV AIDS PATIENTS**

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ABSTRACT

Human Immuno deficiency Virus / Acquired Immune Deficiency Syndrome (HIV / AIDS) can not be cured but this infection can be controlled with antiretroviral drugs (ARVs). Compliance of people with HIV/AIDS (PLWHA) is very important to cope with HIV/AIDS. Non-compliance with antiretroviral therapy gives the effect of drug resistance so that the drug cannot function or fail. The purpose of this study was to determine the factors that affect the compliance of antiretroviral therapy program in PLWHA in Puskesmas Harapan. The design of this study is cross sectional. The respondents of this study were PLWHA patients undergoing antiretroviral therapy program in infection health centers totaling 25 respondents determined by purposive sampling. The Data was collected with a questionnaire sheet and Pill Count. Analysis of the data using Pearson correlation test, spearman rho and multivariate logistic regression CI $\alpha = 0.05$. The results showed that ARV treatment adherence is related to knowledge ($p = 0.017$), side effects ($p=0.418$) no relationship, and support taking medication ($p = 0.278$) conclusion drug side effects are the dominant factors affecting ARV therapy adherence.

Keywords: antiretroviral treatment; compliance; HIV AIDS patients

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INTRODUCTION

Human Immunodeficiency Virus (HIV) is a retrovirus of the Ribonucleic Acid (RNA) group that attacks human immunity. HIV infects human immune system cells especially CD4 T cells and macrophages. Both are vital components of the immune system. A decrease in the immune system due to HIV facilitates the occurrence of infection. The condition of the body that is prone to infection will give rise to an immune deficiency syndrome or so-called Acquired Immuno deficiency Syndrome. People with HIV / AIDS (PLWHA) need to get antiretroviral therapy (Antiretrovirals) to control the HIV virus and maintain immunity body so as not to become AIDS (Kemenkes RI, 2014). Antiretroviral therapy aims to stop the replication of the HIV virus, restore the immune system immune and reduces the occurrence of opportunistic infections. How ARVs work through stages inhibition of virus entry into the cell, the process of transcription and catalysis protein. ARV therapy is able to prolong the life of PLWHA as long as consumed correctly and regularly. Strict schedule of antiretroviral therapy should not be missed in order to can suppress the number of viruses optimally.

Non-compliance with taking antiretroviral drugs has a serious impact on the personal safety of PLWHA (Ministry of Health, 2014). Non-compliance has an impact on drug resistance so that the drug cannot function or fails to reach the planned therapeutic dose (Ramiah and Reich, 2005). Failure of therapeutic doses of antiretrovirals are not able to control the development of viral load. The HIV Virus gets the opportunity to multiply massively and sporadically without proper dose control of antiretrovirals. In fact, even if only one dose of antiretrovirals is missed, it has a significant impact on the development of the HIV virus systemically. The inevitable result is a risk to public health at large due to the transmission of HIV strains that have been resistant. Resistant

conditions cause the drug consumed can no longer slow the rate of HIV to the stage of AIDS, so it needs to be replaced with other drugs that may be more expensive or more difficult to obtain.

A preliminary study in the form of interviews was conducted by researchers in September 2019 involving 10 patients undergoing antiretroviral therapy. The results of the preliminary study showed that seven patients expressed a desire to recover so that they were obedient in following antiretroviral treatment. This is evidenced by the accuracy of the date of control in the Poly trophic infection and the results of calculating the remaining amount of antiretroviral drugs. The remaining three patients were late in control and reports of taking antiretroviral drugs several days late because they ran out of stock at home. Further interviews found the dominance of the cause of the inaccuracy of the control schedule due to feelings of fatigue, saturation, and boredom taking medication. Another reason is because the last few days the patient feels his body is weak, nauseous and vomiting so it is too late for control. Almost all PLWHA live with their families and stated there is support from the family to take medicine every day. However, there are two of them who are single and stated that there is no support for taking medication except from friends who sometimes visit them. All PLWHA have understood the meaning, benefits, procedures, and side effects of antiretrovirals and how to overcome them. This indicates that knowledge about antiretrovirals is adequate enough for PLWHA who control in Poly trophic infection. The purpose of this study was to determine the factors that affect adherence to antiretroviral therapy in PLWHA in Hope Health Center Jayapura regency.

METHOD

This study is an observational analytical method with cross sectional study design (cross-sectional), which is a study to study the dynamics of correlation between risk factors with effects by approach, observation or data collection at the same time so that it is quite effective and efficient (point time approach). The research will be conducted at the Sentani Health Center in Jayapura regency conducted in April-May 2026. The population in this study is HIV patients where the sampling technique used is purposive sampling. The sample of this study was 25 HIV patients in april-May 2026 at Sentani Health center. in this study data were collected based on questionnaires given to respondents. then grouped in microsoft excel to get tabulated data. after getting the data and then testing using SPSS. This study was conducted at the Infectious Diseases Poli at Puskesmas Harapan, with a total number of respondents were 25 outpatients. Data collection in this study was conducted using questionnaires and observation sheets containing five variables, namely knowledge, drug side effects, drug saturation, drug support and drug adherence. The collected Data were then analyzed using univariate, bivariate and multivariate analysis

RESULT

Table 1 it is known that out of 25 respondents. In the gender category, the highest presentation was obtained by men with a percentage of 52%. In the category of marital status the highest married status with a percentage of 72%. The highest education category is in higher education with a percentage of 44%. In the highest category of work is a housewife (IRT) with a percentage of 40% while for the category of medical history tertinggi is more than 5 years with a percentage of 72%.

Table 1.
Respondent Characteristic (n=25)

Respondent Characteristic	Category	f	%
Gender	Man	13	52
	Woman	12	48
Age	<26 age	6	24
	26-45 age	19	76
Marital status	Not Married	7	28
	Already Married	28	72
Education	Junior High School	5	20
	Senior High School	9	36
	Higher Education	11	44
Job	Private sector employee	6	24
	Homemaker	10	40
	Merchant/Trader	9	36
Treatment history	<= 5 years	7	28
	>= 5 years	18	72

Tabel 2.
Patient Knowledge

Patient Knowledge	f	%
Good	15	60%
Enough	8	32%
Not enough	2	8%

Based on the data in the category of knowledge data data shows the highest is on good information with a frequency of 15 percent obtained 60%.

Table 3.
Family Support

Family Support	f	%
Good	15	60
Enough	8	32
Not enough	2	8

Based on the data data on the category of family support data shows the highest is on good information with a frequency of 15 percent obtained 60%.

Table 4.
Side Effects

Side Effects	f	%
No side effects	12	48
There are side effects	13	52

Based on the data on the category of side effects data showed that the highest is the information there are side effects with a frequency of 13 percent obtained is 52%.

Table 5.
Compliance taking antiretroviral drugs

Compliance taking antiretroviral drugs	f	%
Non-compliant	8	32%
Compliant	17	68%

Based on the data data on the category of drug compliance data showed the highest is on the description of compliance with the frequency of 17 with a percentage of 68%.

Table 6.
Bivariat Anlisis

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12,094 ^a	2	,002
Likelihood Ratio	13,411	2	,001
Linear-by-Linear Association	11,471	1	,001
N of Valid Cases	25		

a. 4 cells (66,7%) have expected count less than 5. The minimum expected count is ,64.

Bivariate analysis showed that there is a relationship where the p value obtained is 0.02. while the standard is, 0,05.

Table 7.
Multivariat Analysis

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	2,481	,182	13,616	,000
	pengetahuan	-,359	,139	-,492	,017
	dukungan keluarga	-,134	,121	-,217	,278
	efek samping	-,136	,165	-,146	,418

a. Dependent Variable: kepatuhan minum obat ARV

In Multivariate analysis there is no relationship between each indicator. said to be significant >0.05

DISCUSSION

The results indicate that the majority of respondents have average knowledge in both categories. Further knowledge analysis almost all respondents know the benefits of antiretroviral drugs that inhibit the development of HIV in the blood. All respondents also knew that Antiretrovirals could be obtained at the hospital. The majority of respondents said the preparation before undergoing antiretrovirals is to have undergone counseling and there is a doctor who is responsible for supervising. The majority of respondents were also able to determine the benefits, definitions of compliance, and dangers due to non-compliance with taking antiretrovirals appropriately.

Based on the data of the study, the high knowledge score of respondents was found in respondents with a treatment history of more than 5 years. As supported also from the research data that the majority of respondents have a treatment history of 5-10 years. The results of this study in accordance with the opinion of Sari Hassanah 2022 a person's knowledge is influenced by experience. someone is obedient in following antiretroviral therapy due to personal experience. They shape our thoughts and feelings, reinforcing our perceptions, attitudes and beliefs and our judgments of knowledge from both personal experience and the experience of others.

Based on the data of the study, it is known that some respondents with low knowledge value, have a level of education in the junior and Senior High School categories of 5 & 9 respondents (20%) & (36%). This research in line with research Sigalingging 2022. Education high can not necessarily influence in obedience take medicine Respondent berpendidikan tinggi even though he was educated, I want to heal them together the disease is so advanced education does not affect adherence to treatment

The low knowledge score of respondents can be overcome by providing intervention notes or guidebooks that can be brought by respondents. Knowledge is still low in respondents due to lack of remaining or relearning about antiretroviral therapy. Respondents forget things that have been learned before. These guidelines are additional information in addition to the lecture or counseling methods that have been given by nurses during the control time at the poly. This Data is based on Puspitasari & lesatri, 2023 factor is often forgotten. Many health workers assume that patients will follow what is advised, without realizing that these patients will do it or not and DNA binding

(UI,2012), primaquin in use for relapse therapy in P.Tropical, and P.Tertiana P.Vivax and also as a complement to the treatment of radical P.Falciparum to prevent transmission. There were 94 malaria patients who received primaquine. It is also used to treat Plasmodium malaria. There were 99 malaria patients who received DHP.

CONCLUSION

The majority of respondents are 26-45 years old, male, married, have a college education and work as a housewife (IRT). The majority of respondents had a history of treatment in the range of 5-10 years. There is a relationship between the knowledge of respondents with compliance consume antiretrovirals. There is a relationship between drug side effects with compliance taking antiretrovirals. There is a relationship between support taking medication with compliance taking antiretrovirals

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