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Antiretroviral drug adherence among patients with HIV/AIDS based on socio-demographic characteristics

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Abstract

Background : The government has set a target for accelerating the prevention of HIV/AIDS in Indonesia, namely zero new infections, zero people dying from HIV/AIDS, and zero stigma and discrimination. Stigma against people living with HIV has a major impact on HIV/AIDS prevention and control programs, including the quality of life for people living with HIV. Good knowledge will reduce the stigma that appears. Adherence to the use of ARV (antiretroviral) is one of the factors that can significantly extend the life expectancy of people living with HIV (people living with HIV AIDS). ARVs work against infection by slowing the reproduction of HIV in the body

Purpose: To identify the factors that influence the adherence of people living with HIV to taking ARVs.

Method: This is an observational, descriptive, and quantitative research project with a cross-sectional approach. The research will be conducted at the Sukabumi Health Center in Bandar Lampung in 2021. The population in this project is 103 HIV patients. The sampling technique used is total sampling.

Results: Meanwhile, there are more PLHIV patients from urban areas than from rural areas. People living with HIV usually need ARV if the CD4 level is 350 mm³.

Conclusion: The univariate variables of age group, occupation, education, gender, and origin of residence did not affect whether people living with HIV were non-adherent to treatment.

Keywords: Adherence; HIV/AIDS; Prevention.

INTRODUCTION

Human Immunodeficiency Virus (HIV) is a type of virus that infects white blood cells and causes a decrease in human immunity (Crux & Elahi, 2017). Acquired Immune Deficiency Syndrome (AIDS) is a collection of symptoms that arise due to decreased immunity caused by infection with HIV (Putranti et al., 2018). HIV patients require treatment with antiretrovirals (ARV) to reduce the amount of HIV virus in the body so that it does not enter the AIDS stage, while AIDS sufferers need ARV treatment to prevent opportunistic infections with various complications (Ministry of Health of the Republic of Indonesia 2020). According to estimates by the WHO and the Joint United Nations Program on HIV and AIDS (UNAIDS), 36.7 million people were living with HIV worldwide at the end of 2016 (World Health Organization, 2017). HIV/AIDS in Indonesia is one of the fastest-growing epidemics in Asia.

In 2007, the prevalence rate of HIV/AIDS in Indonesia was ranked 99th in the world, but due to the low understanding of the symptoms of the disease and the high social stigma that accompanies it, only 5-10% of people with HIV/AIDS are actually diagnosed and treated. (United Nations Program on HIV and AIDS, 2018). The Ministry of Health is committed to eliminating AIDS by 2030. This commitment is reflected in the 95/95/95 target, namely that the first 95% of people living with HIV know their HIV status, the second 95% of people living with HIV are receiving ARV drug therapy, and the third 95% of all people

living with HIV who have received ARV drugs have decreased viral load (Bandar Lampung Health Office, 2020).

A number of strategic steps have been prepared by the Ministry of Health together with relevant stakeholders, including issuing the NAP for the Elimination of HIV AIDS, expanding access to prevention, HIV diagnosis services, and treatment of ART and opportunistic infections, collaborating with relevant stakeholders, and innovating in the prevention and control of HIV AIDS and STIs. Studying treatment adherence factors based on the characteristics of HIV patients at the Sukabumi Bandar Lampung Health Center in 2021 will support the AIDS elimination program in 2030.

RESEARCH METHOD

This is an observational, descriptive, and quantitative research project with a cross-sectional approach. The research will be conducted at the Sukabumi Health Center in Bandar Lampung in 2021. The population in this project is 103 HIV patients. The sampling technique used is total sampling. The criteria included in this trial were HIV patients currently undergoing treatment, provided they were responsive to medical treatment. In this project, there are HIV patients who died. The variable in this study was medication adherence in HIV patients. Data collection uses medical record data. Data analysis in this study included univariate analysis using percentages.

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RESEARCH RESULTS

Table 1. Demographic Characteristic of Respondents (N=103)

Variable	Results
Age (n/%)	
<20	5/4.9
21-30	42/40.8
31-40	43/41.7
41-50	9/8.7
>50	4/3.9
Gender (n/%)	
Man	69/67.0
Woman	34/33.0
Education	
Junior High School	22/21.4
Senior High School	69/67.0
D3	4/3.8
S1	8/7.8
Treatment Duration	
<1 year	14/13.6
1-3 years	30/29.2
3-5 years	26/25.2
5-9 years	24/23.3
>10 years	9/8.7

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The data above shows the total number of patients with PLHIV in the working area of the Sukabumi Health Center as 103, with age variations ranging from less than 20 years to more than 50 years of age. where there are more male patients, namely 69 people (67%) and as many female sufferers as 34 people (33%). The education level starts from junior high school to bachelor's level 1. And those who undergo treatment between 1-3 years are at most 30 patients, and only 9 patients undergo treatment for more than 9 years but less than 10 years. And all patients still adhere to treatment.

DISCUSSION

There are more PLHIV patients from urban areas than from rural areas. People living with HIV usually need ARV if the CD4 level is 350 mm³. The use of ARVs in Indonesia began in 1990 using patented drugs; only in November 2001 did it switch to generic drugs. Kimia Farma itself has only been able to produce generic ARVs since the end of 2003, so that ARV drugs can be given free of charge since 2004. Until now, the source of ARV drugs in Indonesia has come from APBN funds produced by Kimia Farma and from the Global Fund, with a 70:30 comparison of funds. ARV therapy (ART) is always used in combination; that's why it's called HAART (Highly Active Antiretroviral Therapy) (Granich et al., 2010). So far, there have been a first and a second.

Adherence, or adherence according is the behavior of taking drugs, which is an agreement between the patient and the prescriber, where the patient is involved in making decisions about things that the patient wants based on decisions that have been made by doctors and are mutually agreed upon (Horne, 2006).

Compliance in the use of drugs as a health behavior can also be viewed from a psychological perspective, especially in light of social cognition theories such as the Health Belief Model (HBM), Theory of Planned Behavior (TPB), and Informational-Motivational Behavioral Model (IMB) (Stonerock & Blumenthal, 2017). Has reviewed the three theories in relation to adherence to ARV use. Based on the HBM theory, an action behavior will be formed from a person's

perception of the vulnerability and severity of the disease, as well as the perception of the benefits and obstacles faced. In general, people living with HIV who consider their illness to be severe and have experienced serious symptoms know the benefits of ARVs and are more obedient in taking medication, but one of the obstacles they face is stigma (Kagee, 2008).

The Theory of Planned Behavior states that attitudes, normative support, and perceptions of behavior control are the determinants of intentions, while intentions are the main determinants of the occurrence of a behavior, a positive attitude in general will increase compliance (Warburton & Terry, 2018). On the other hand, negative attitudes towards antiretroviral drugs, such as concerns about side effects and the perception of not needing ARVs, are related to non-adherence (Iacob & Jugulete, 2017). However, there are no studies that explain adherence to ARVs holistically using TPB. Based on information in IMB theory, motivation and ability to behave are fundamental determinants of behavior. The results of Karl Peltzer's research in South Africa using the IMB theory showed that the level of adherence of people living with HIV had higher scores in information, behavioral abilities, and social support (Pretorius, 2019).

Considering that ARV therapy is a lifelong therapy, the problem of adherence to therapy is a common problem from the five tables above, it can be seen that a total of 103 people with HIV/AIDS undergoing treatment at the Sukabumi Health Center, with various variations in age, occupation, gender, education, and origin of residence, adhere to treatment. Based on age, patients who are in the productive age range of 31–40 years are 41.7 % of the total number of patients in the above and below age groups. The same study on ARV medication adherence in Sorong Papua also shows that respondents' self-efficacy tends to be high, as does their adherence to medication behavior. This is considered in line with the results of the bivariate analysis, which showed a relationship between self-efficacy and adherence to taking antiretroviral (ARV) drugs in HIV-AIDS patients. Based on these results, it can be said that increasing self-efficacy can also

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increase patient compliance with treatment (Myer & Phillips, 2017).

Various studies show things that hinder compliance, including fear of side effects, forgetfulness, an unhealthy lifestyle, poor health conditions, missing medicine boxes, a lack of personal awareness, experiencing opportunistic infections, daily activities, economic problems, namely, insufficient income for ARV treatment, impossible jobs, and fear of stigma. Supporters of adherence include those who have a regular schedule for taking medication, understand the importance of compliance, get good treatment results, and have confidence in the treatment process. In several other studies, the causes of non-compliance stated by people living with HIV include side effects of drugs such as nausea and dizziness, boredom, unfriendly health workers, the distance from which services are not accessible for some sufferers, and the fear that their status will be known by others. In addition, sometimes people living with HIV are late or miss taking ARVs because they forgot or fell asleep (Roy et al., 2017). So far, the characteristics of adherence to medication for people living with HIV at the Sukabumi Public Health Center have been good, although it has not been further investigated what the specific things are that are the biggest obstacles and supporters for people living with HIV. It is hoped that from this compliance, the efficacy of treatment in maintaining the patient's status in a healthy position and being able to carry out activities like other healthy people can be achieved.

CONCLUSION

The univariate variables of age group, occupation, education, gender, and origin of residence did not affect whether people living with HIV were non-adherent to treatment.

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