
THE CORRELATION OF SELF EFFICACY AND SELF MANAGEMENT TO MEDICATION ADHERENCE OF ARV DRUGS IN PWHA AT SIMPUR PRIMARY HEALTH CENTER BANDAR LAMPUNG 2023

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Keywords

HIV/AIDS, Self Efficacy, Self Management, Medication Adherence, People with HIV AIDS (PLWHA)

ABSTRACT

Introduction

The data at Simpura Primary Health Center in Bandar Lampung in 2022 till March 2023 PWHA patients reached 326 people. The incidence of HIV-AIDS continues to increase, nationally and globally. The purpose of this study determined the correlation of self-efficacy and self-management with medication adherence of ARV drugs medication in PWHA at Simpura Primary Health Center, Bandar Lampung.

Method(s)

This study was a quantitative, analytic survey method with a case control approach, that explained the correlation of variables through hypothesis test. The population of this study were PWHA patients at Simpura Primary Health Center, Bandar Lampung as many as 326 people.

Result(s)

Based on the results of statistical tests, p -value $< \alpha$ value (0.05) was obtained, self-efficacy (0.001), and self-management (0.037) indicated that there was correlation with self-efficacy and self-management to medication adherence of ARV drugs in PWHA at Simpura Primary Health Center Bandar Lampung, 2023. It is expected that PWHA can increase self-efficacy, self-management and satisfaction in taking ARV (Antiretroviral) drugs.

Conclusion(s)

Data at the Simpura Inpatient Health Center in Bandar Lampung City, from 2022 to March 2023, ODHIV patients reached 326 people. The incidence of HIV-AIDS continues to increase, both nationally and globally. One of the control measures taken is the administration of ARV (Antiretroviral) drugs.

INTRODUCTION

World Organization (WHO) data for 2021 reports that AIDS-related deaths have decreased globally thanks to the use of antiretroviral therapy (ARV). Deaths fell by 45% and use of Antiretroviral therapy (ARV) increased by 62%. Globally, 28.7 million people living with HIV have received antiretrovirals (ARVs) since 2021, global coverage of these antiretrovirals (ARVs) shows a figure of 75%. Thus, more efforts are needed to improve antiretroviral (ARV) treatment and therapy, especially treatment for children and adolescents. Data shows that only 52% of children (0-14 years) received antiretroviral therapy (ARV) at the end of 2021 (World Health Organization, 2021).

In Indonesia, the number of PLHIV found is 419,551 people out of an estimated number of living PLHIV of 543,100 people. There are 26% of PLHIV who routinely receive antiretroviral (ARV) treatment, 142,906 of the estimated 543,100 PLHIV (Ministry of Health of the Republic of Indonesia, 2021).

From the initial survey conducted by researchers at the Simpung Inpatient Health Center, Bandar Lampung City, from 2022 to March 2023, PLHIV patients reached 326 people (Medical Records of the Simpung Inpatient Health Center, Bandar Lampung City, 2023). One very important factor in the success of HIV/AIDS treatment is patient compliance with therapy because continuous antiretroviral therapy without stopping can inhibit the development of the virus, reduce viral resistance and improve the patient's health in general. However, patient non-compliance will result in failure of antiretroviral therapy and will result in drug resistance in patients who will need second or third line antiretrovirals (ARV) at quite large costs due to drug limitations (Pudjiati, 2016). Preventive efforts are very necessary because they can reduce the risk of HIV transmission, preventive efforts are considered the most effective because they can prevent a person from being exposed to the risk of transmission, research has been carried out on HIV treatment therapy, one of which is antiretrovirals. Therapy (ART) can increase the life expectancy of PLHIV (Erwansyah, et al., 2020).

It is necessary to prevent hopelessness in PLHIV, including by having great self-efficacy (confidence). By developing self-efficacy, which is the level of confidence that PLHIV have in their ability to succeed in managing

themselves (Bakri, et al 2020).

Self-efficacy is a person's confidence in carrying out certain activities, including confidence in taking antiretroviral (ARV) drugs. Self-efficacy is the main factor that influences the consumption of antiretroviral (ARV) drugs. Self-efficacy (confidence) exists in sufferers to carry out self-management so that treatment goals are achieved (Calandrini, et al, 2020).

Self management is recommended as a method to support individuals, and manage individual coping. The aim of this program is to provide PLHIV sufferers with training in their abilities which are very necessary for them to better control the conditions and social problems they face. Self-management is applied to PLHIV sufferers so that patients are better at self-management which includes improving attitudes, self-confidence and self-management skills so as to make the patient's quality of life better (Fernandez-Martin et al., 2015). Self-management refers to an individual's ability to manage symptoms, treatments, physical, psychosocial and lifestyle changes suffered by chronic conditions. PLHIV's self-management is influenced by self-efficacy (beliefs).

METHODS

This research uses quantitative research, analytical survey methods with a case control approach which explains the relationship between variables through hypothesis testing. The population used in this research was PLHIV at the Simpung Inpatient Health Center, Bandar Lampung City, a total of 326 people. and the sampling technique was purposive sampling with a sample of 87 respondents and the instrument used was a questionnaire.

RESULTS

This research is quantitative in nature where the data produced will be in the form of numbers. From the data obtained, analysis was carried out using SPSS software. This research aims to analyze the relationship between self-efficacy and self-management and adherence to antiretroviral medication in PLHIV. With this objective in mind, data was collected using a questionnaire from 87 PLHIV patient respondents. This research used 2 independent variables, namely the Relationship of Self-Efficacy and Self-Management and the dependent variable, namely Medication Adherence.

Table 1. Frequency Distribution of Respondent Characteristics

Responden Characteristic	F	%
Age (Years)		
17-26	21	24,1
27-36	47	54,0
37-46	18	20,7
47-50	1	1,1
Gender		
Male	77	77
Female	10	10
Education Level		
Elementary	1	1,1
Junior High	1	1,1
Senior High	68	78,2
College (D3/S1)	17	19,5
Occupancy		
Housewife	0	0
PNS/Polri/TNI	0	0
Self-Employed	72	82,9
College Student	13	14,9
Merchant	2	2,3
Marital Status		
Not marry yet	82	94,3
Marry	4	4,5
Widow(er)	1	1,1
Use of Contraceptive		
No	83	97,7
Yes	0	0
Use Condom	4	4,6
Lenght of time HIV diagnosed		
< 1 year	2	2,3
1-5 years	71	81,6
6-10 years	10	11,5
>10 years	5	4,6

The table shows that of the 87 respondents aged 27 - 36 years there were 47 people (54.0%), aged 17 - 26 years there were 21 people (24.1%), aged 37 - 46 years there were 18 people (20.7), aged 47 - 50 years 1 person (1.1%). There were 77 men (88.5%), 10 women (11.5%).

68 people (78.2%) had a high school/equivalent education, 17 people (19.5%) had a diploma/graduate degree, and 1 person (1.1%) had a graduate education. SD/MI was 1 person (1.1%). There were 72 people (82.8%) as entrepreneurs, 13 people

as students (14.9%), and 2 people as traders (2.3%).

82 PLHIV sufferers were unmarried (94.3%) and a small percentage of PLHIV sufferers' marital status was married to 4 people (4.5%), and 1 person was widowed/widowed (1.1%).

The duration of HIV diagnosis was 1-5 years as many as 71 people (81.6%), 6 - 10 years as many as 10 people (11.5%), >10 years as many as 4 people (4.6%), and <1 year as many as 2 people (2.3%).

Uni-variate Analysis

Table 2. Frequency distribution of respondents based on Self Efficacy

Self Efficacy	F	%
Good	48	55,2
Sufficient	8	9,2
Deficient	31	35,6
Total	87	100

Table 3. Frequency distribution of respondents based on Self management

Self Management	F	%
Good	30	34,5
Sufficient	44	50,6
Deficient	13	14,9
Total	87	100

Table 4. Frequency distribution of respondents based on Compliance with taking medication

Compliance with taking medication	F	%
High compliance	21	24,1
Moderate compliance	49	56,3
Low compliance	17	19,5
Total	87	100

Bivariate Analysis

Once the characteristics of each variable are known, further analysis can be carried out. If you want to analyze the relationship between two variables. Then the analysis continues at the bivariate level. To find out the relationship between these two variables, statistical testing is usually carried out. The type of statistical test used really depends on the type of data or variables being linked. In this research, the statistical test used is the

chi square test because both variables are categorical data (Notoatmodjo, 2018).

Self-efficacy with the level of adherence to taking medication

Table 5. Cross tabulation of self-efficacy with the level of adherence to taking medication

Self Efficacy	Adherence to taking medication						Total	p-Value
	High compliance		Moderate compliance		Low Compliance			
	N	%	N	%	N	%		
Deficient	13	41,9	12	17,5	6	7,5	31	31
Sufficient	1	1,6	7	4,5	0	1,9	8	8
Good	3	9,4	30	27,0	15	11,6	48	48
Total	17	17,0	49	49,0	21	21,0	87	87

Self-Management with the level of adherence to taking medication

Table 5. Cross tabulation of self-efficacy with the level of adherence to taking medication

Self Management	Adherence to taking medication						Total	p-Value
	High compliance		Moderate compliance		Low Compliance			
	N	%	N	%	N	%		
Deficient	1	2,5	12	7,3	0	3,1	13	13
Sufficient	9	8,6	20	24,8	15	10,6	44	44
Good	7	5,9	17	16,9	6	7,2	30	30
Total	17	17,0	49	49,0	21	21,0	87	87

DISCUSSIONS

Self-Efficacy in PLHIV patients

Based on the research results which can be seen in table 8, it was found that of the 87 respondents suffering from PLHIV, most of them had good self-efficacy, 48 respondents (55.2%), 8 respondents (9.2%) had good self-efficacy, 8 respondents (9.2%) had poor self-efficacy. 31 respondents (35.6%) From the results of the research, the researcher believes that self-efficacy is good in managing feelings of depression, managing therapy and compliance with taking medication, confidence in managing symptoms, confidence in communicating with health service providers regarding the health problems they face, confidence in medication adherence experienced. Self-efficacy is defined as a person's assessment of his or her ability to organize and carry out a program of actions necessary to achieve the type of action one wants to take, including regarding health. A person's beliefs about their efficacy also have

an important promotive role in health, and influence three phases of individual change, namely initiating efforts to change their habits, exerting the inner influence needed to achieve success, and maintaining the changes in habits that have been achieved (Banna and Dirgantari Pademme, 2019).

Self-efficacy based on gender in this study showed that men were 77 people (88.5%) greater than women who were 10 people (11.5%). Wantiyah in Okatiranti et al. (2017) which states that women have high efficacy compared to men, because men are independent in solving problems and tend to have quite high self-confidence. The majority of respondents' education is high school, generally the higher the level of food education, the higher the self-efficacy because they have received more formal education and more knowledge, so they are able to solve problems and manage their illnesses (Kusuma & Hidayati 2013).

Job status, generally an established job, sufficient economic status can influence a person's life. The research results in table 4 show that entrepreneurs' self-efficacy is better than other jobs. Marital status, research results reveal that married respondents tend to have good self-efficacy. This is because with married status, a person will have higher self-esteem and adequate coping resources from their partner, their partner is able to provide positive support regarding their illness so that respondents feel more optimistic (Sesaria, 2016).

The results of the research carried out contradict this theory. The research results show in table 5 that the self-efficacy of respondents who are married and unmarried is no better than those who are widowed and divorced. Apart from these factors, the length of time diagnosed with HIV will provide a unique experience for the individual, especially in dealing with their health problems, so that they face more successes and failures. The more success one achieves in facing health problems, the more one's confidence or self-efficacy increases.

Good self-efficacy means that on average he has good confidence in several domains, namely in overcoming feelings of stress, managing therapy and disease symptoms, communicating with health providers, getting support from other people and managing fatigue (Bandura in Ni'imah 2014). Looking at the analysis of the results which reveal that more respondents have sufficient self-efficacy than good, meaning that not all domains are

believed to be very good by the respondents. This may be related to experiences or interactions related to that domain. The results of the study showed that at the Simpura Inpatient Health Center, PLHIV sufferers had the best self-efficacy in the domains of therapy management and medication compliance as well as managing disease symptoms. This means that the Simpura Inpatient Health Center is successful in its treatment program for PLHIV.

Self Management in PLHIV sufferers

Based on the research, it shows that of the 87 who had good Self Management, 30 people (34.5%), 44 respondents (50.6%) had adequate Self Management and 13 (14.9%) had poor Self Management. Self Management in PLHIV sufferers decreases or is less able to influence Self Management in PLHIV sufferers, the more PLHIV sufferers always pay attention to their self-care, the self-efficacy or confidence of PLHIV sufferers also increases.

A factor that can influence a person's self-management is educational status. The research results in table 3 show that 68 respondents (78.2%) had a high school/equivalent education. According to researchers, education is an important indicator for a person in solving problems. where the higher a person's education, the higher the self-care carried out. The higher the education, the more information a person will have to carry out good self-care (Erceg, 2013).

Another factor that can influence a person's self-care behavior is work, based on the research results in table 4 above, it shows that the majority (82.8%) of respondents work as entrepreneurs. This research is in line with research conducted by Campble et al. (2014) regarding the influence of income on a person's health behavior shows that those with higher income tend to comply with health behavior. In this case, the researcher assumes that a person's self-care is closely related to several factors, including the characteristics of the respondent, such as employment and educational status.

Compliance with taking medication in PLHIV sufferers

Research that was conducted on PLHIV sufferers at the Simpura Inpatient Health Center, Bandar Lampung City, obtained the results in table 10 showing that of the 87 people with a high level of medication adherence, 21 people (24.1%), 49 people had moderate medication compliance (56, 3%) and the level of

medication adherence was low at 17 people (19.5%). The level of treatment compliance is a complex condition that can influence sufferers' behavior in making decisions about their treatment (Rozaqi, M., Andarmoyo, S., & Dwirahayu, 2019). Compliance is the degree to which a patient follows the clinical recommendations of the doctor who treats him to the extent to which the patient's behavior is in accordance with the provisions given by the health professional. Compliance means using the right medicine, at the right time with the right way of treating HIV infection with medicine. ARVs do not kill the HIV virus, but they can slow down the growth of the virus, the growth time of the virus is slowed, as is HIV disease.

Compliance (adherence) to therapy is a condition where the patient complies with the treatment based on his own awareness, not just because he obeys the doctor's orders. Compliance should be monitored and evaluated regularly at each visit. Failure of ARV therapy is often caused by patient non-compliance with taking ARVs. To achieve good virological suppression requires a very high level of adherence to ARV therapy. Research shows that to achieve optimal levels of viral suppression, at least 95% of all doses should not be forgotten (Ministry of Health of the Republic of Indonesia, 2015). The impact of patient non-compliance in taking ARVs can affect the number of CD4 cells in the body. If CD4 decreases to 200 cells/ml, the body's immune system cannot work optimally, making it easier to get IO.

Resistance also occurs due to failure of ARV treatment, one of the causes of which is non-compliance with the therapy being undertaken. Apart from that, the presence of depression and lack of support from the family for the patient causes therapy failure (Fajar, 2013). According to WHO (2013), apart from patient-related factors, there are other factors that can influence compliance, including social and economic factors (poverty, low education, unemployment, lack of social support), health team or system factors. health (insurance, lack of drug distribution system, short consultations), disease condition factors (severity level, level of disability, disease progression), as well as therapeutic factors (complexity of drug regimen, length of treatment, failure of previous treatment).

Another influencing factor is the length of time diagnosed with HIV with adherence to taking medication, the proportion of suffering

from 1-5 years 71 people (81.6%) is greater than the length of diagnosis 6-10 years 10 people (11.5%), >10 years 4 people (4.6%), <1 year 2 people (2.3%). According to theory, the longer a person suffers from hypertension, the lower the level of compliance, which is due to the patient's boredom undergoing treatment while the level of recovery achieved is not as expected (Gama, 2015). To improve a patient's ability to follow a medication regimen, all barriers to compliance need to be considered.

Factors that greatly influence increasing medication compliance are personal patient control, patient interaction with health workers, and patient interaction with the health service system (Siregar, 2013). However, there are also several ways to increase a person's compliance, namely by providing information to patients about the benefits and importance of the risks of non-compliance, giving sufferers confidence regarding the effectiveness of drugs in therapy, providing pharmaceutical services, visiting the homes of PLHIV sufferers to provide consultations (Noorfatmah, 2014).

The relationship between self-efficacy and medication adherence in PLHIV

This study shows that from the 48 respondents with good self-efficacy, 15 people had a high level of compliance (11.6%), 30 (27.0%) had a moderate level of compliance and 3 people (9.4%) had a low level of compliance. Meanwhile, of the 8 respondents with sufficient self-efficacy, 0 people (1.9%) had a high level of compliance, 7 people (4.5%) had moderate compliance, and 1 person (1.6%) had a low level of compliance. And it is known that of the 31 respondents with less self-efficacy, 6 people (7.5%) had a high level of compliance, 12 people (17.5%) had a medium level of compliance and 13 people (41.9%) had a low level of compliance. The statistical test results obtained p value = 0.001, which means $p < \alpha = 0.05$ (Ho rejected and Ha accepted), so it can be concluded that there is a relationship between self-efficacy and adherence to taking ARV medication at the Simpura Inpatient Health Center in 2023.

Previous research conducted by Banna and Dirgantari Pademme (2019), shows that a person's beliefs about their self-efficacy also have an important promotive role in health, and influence three phases of individual change, namely starting an effort to change their habits, exerting the necessary influence within themselves. to achieve success, and maintain the changes in habits that have been achieved.

Self-efficacy that has been formed can support changes in individual behavior, so that it is hoped that patients can have high compliance with treatment, although it is known that apart from having a positive impact on reducing viral load, there are also many unpleasant impacts that will be experienced by patients who consume ARVs (Adefolalu et al. , 2014).

The relationship between self-management and medication adherence among PLHIV

The data shows that of the 30 respondents with good self-management, 6 people had a high level of compliance (7.2%), 17 people had a moderate level of compliance (16.9%) and 7 people (5.9%) had a low level of compliance. Meanwhile, of the 44 respondents with sufficient self-management, 15 people (10.6%) had a high level of compliance, 20 people (24.8%) had a moderate level of compliance, 9 people (8.6%) had a low level of compliance, and it was known that from 13 Respondents with less self-management were 0 people (3.1%) with high levels of compliance, 12 people (7.3%) with moderate levels of compliance, and 1 person (2.5) with low levels of compliance. The statistical test results obtained p value = 0.037, which means $p < \alpha = 0.05$ (Ho rejected and Ha accepted), so it can be concluded that there is a relationship between self-management and adherence to taking ARV medication at the Simpura Inpatient Health Center in 2023.

Based on these data, it can be concluded that the better the respondent's self-management, the better the respondent's compliance with taking medication. The findings of this research are in line with research by Putri et al, (2022) on "The Relationship between Self Management and Compliance with Taking Antihypertensive Medication in Hypertensive Patients at the Mranggen I Community Health Center, Demak Regency" which shows that there is a significant relationship between Self Management and Compliance with Taking Antihypertensive Medication. In Hypertension Patients at the Mranggen I Community Health Center, Demak Regency. According to researchers, individuals who have high Self-Efficacy and Self-Management can influence adherence to taking ARV (Antiretroviral) medication in PLHIV sufferers. High Self Efficacy and Self Management can show interest and involvement in an action including a compliance program provided to PLHIV sufferers. The program given to PLHIV sufferers is compliance in taking medication

which can help sufferers achieve optimal health.

According to Banna and Dirgantari Pademme (2019), they concluded that self-efficacy can influence PLHIV sufferers in their adherence to taking ARV (Antiretroviral) medication. According to Putri et al (2022), they concluded that there is a significant relationship between self-management and compliance with taking antihypertensive medication. So that self-efficacy and self-management have a role in analyzing and maintaining optimal medication adherence behavior.

The research results are in line with Banna and Dirgantari Pademme (2019) regarding the relationship between self-efficacy and adherence to taking ARV (Antiretroviral) medication in HIV-AIDS patients. The results of this study showed a relationship between self-efficacy and adherence to taking medication ($p=0.004$). The level of self-efficacy can influence the efforts a person makes to achieve targeted behavior and impact the individual's ability to continue carrying out activities in the face of obstacles or failure (Bandura, 1995 in Kolmodin Macdonell et al., 2016).

The results of this study are in line with Kogopa et al (2022) regarding the relationship between self-efficacy and the level of adherence to ARV (Antiretroviral) therapy in HIV seropositive men. The results of this study showed a relationship between self-efficacy and adherence to taking medication in male patients suffering from HIV-AIDS ($p=0.023$). The research results show that men have higher self-efficacy than women. Self-efficacy is an action that leads individuals to overcome challenges and obstacles in achieving goals. This is also supported by Bandura's theory (1994), which states that self-efficacy is formed through four processes, namely: cognitive, motivational, affective, and selection which lasts throughout life. The results of this study show high self-efficacy, this is influenced by the respondent's gender.

The results of this study are in line with Putri et al (2022) regarding the relationship between self-management and adherence to taking antihypertensive medication in hypertensive patients. The results of this study showed a relationship between self-management and adherence to taking antihypertensive medication ($p=0.001$). The results of this research showed that the majority of respondents (40%) had sufficient self-management scores, while 36.4% of

respondents had good self-management scores and 23.6 others had poor self-management scores.

The results of this study are in line with Awallia Zaura Rahmadina (2022) regarding the relationship between self-management and the level of compliance with taking medication in hypertension sufferers. The results of this research show a relationship between self-management and the level of compliance ($p=0.000$). To improve self-management of hypertensive patients, it is necessary to develop appropriate interventions (Kurnia, 2020).

CONCLUSIONS

In general, this research has the results that (1) The self-efficacy of 87 respondents from PLHIV patients at the Simpura Inpatient Health Center, Bandar Lampung City, totaling 48 respondents had good self-efficacy, 8 respondents had sufficient self-efficacy, and 31 respondents had poor self-efficacy. This shows that the majority of PLHIV patients have good self-efficacy. (2) Self management of 87 respondents from PLHIV patients at the Simpura Inpatient Health Center, Bandar Lampung City, totaling 30 respondents had good self management, 44 respondents had sufficient self management, 13 respondents had poor self management. This shows that the majority of PLHIV patients have sufficient self-management.

Furthermore, (3) compliance with taking medication management in 87 PLHIV sufferers at the Simpura Inpatient Health Center, Bandar Lampung City, totaling 21 respondents had high compliance, 49 respondents had moderate compliance, 17 respondents had low compliance. This shows that the majority have moderate compliance; (4) the relationship between self-efficacy and adherence to taking antiretroviral medication among PLHIV at the Simpura Inpatient Health Center, Bandar Lampung City and (5) the relationship between self-management and adherence to taking antiretroviral medication among PLHIV at the Simpura Inpatient Health Center, Bandar Lampung City.

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