

# THE RELATIONSHIP OF SELF CONCEPT WITH MEDICATION ADHERENCE TO ARV IN HIV-POSITIF WOMEN'S REPRODUCTIVE IN POLY VCT WALUYOJATI GENERAL HOSPITAL PROBOLINGGO INDONESIA

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**Abstract:** Globally, HIV epidemic has entered a critical condition. A number of HIV cases for each Province in Indonesia's that second-highest in the province of East Java with a number of cases were began 1987 - March 2016 in East Java were 26,052 people. A number of HIV women patients until March 2016 was 74,512 people. The clinic VCT data until 30 November 2015 a number of 657 patients receiving ARV. 49 people have died, 10 people referred to and 20 people drop out. Routine control on schedule and regularly drank to ARV was 273 people and irregular drank to ARV was 297 people. The aim to analysis the relationship of self concept with medication adherence to ARV in HIV-positive women's reproductive in Poly VCT Waluyoati General Hospital Probolinggo Indonesia. The methods use analytic correlational with cross sectional study. The study population all HIV-positive women on reproductive who visit and get treatment medication to ARV in Clinic VCT Waluyoati General Hospitals were 81 people and a sample were 68 people using consecutive sampling. After asking informed consent to respondent, data collection with questionnaire and statistical tests pearson product moment. The results showed a P value = 0.167 < 0.05. Conclusion that there were no relationship of self concept with adherence to ARV medication of HIV-positive women on reproductive age. We give recommendation on next study that you must conduct to control confounding variable and partisipatory observations to search for the real cause of someone not adherence to ARV medication.

**Keywords:** Self concept, Adherence, ARV, Women

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## Introduction

3rd goals SDGs i.e ensure a healthy life and promoting prosperity for all ages. A healthy life is one of them with avoid it of society from HIV/ AIDS that continue to increase in quantity until now (UNDP, 2015).

HIV (Human Immunodeficiency Virus) is a virus that attacks the immune system so that the immune system is weakened. While the AIDS (Acquired Immune Deficiency Syndrome) is a symptom of the decline in the ability of the body's defense because of the HIV virus. HIV/ AIDS case is not only attack the high risk group but also attack the general society or called pandemic (General Director of Medical Services, 2013).

Globally, HIV epidemic has entered a critical condition. UNAIDS data 2016 indicate that until the end of the year 2015 in the world globally that people living with HIV a number of 36.7 million. The concern situation is also occur in develope countries with low socio economic status which is expected found the number of 6,000 HIV cases every day in the productive age group between 15-24 years (Data and Information Center of Health Ministry, 2014).

According to the Data and Information Center of Ministry of Health, from a number of HIV case that occur in the world, about 16 million HIV case occure in women. A number of new HIV infection in 2013 of 2.1 million including 1.9 million attacking adult and 240,000 on children age < 15 years old. A number of death

from AIDS are 1.5 million including 1.3 million adult and children at 190,000 < 15 years old (Data and Information Center of Health Ministry, 2014).

The data of cumulative number of HIV cases in Indonesia since it was first discovered in 1987 in Bali until March 2016 and has spread in 386 district/city in the whole provinces in Indonesia that are 191,073 people and cumulative AIDS are 77,940 people. A number of HIV cases for each Province in Indonesia's that second-highest in the province of East Java after Jakarta with a number of cases were began 1987 – March 2016 in East Java were 26,052 people. In Jakarta a number of HIV cases are 40,500 people, in Papua are 21,474 people, West Java are 18,727 and Central Java are 13,547 (General Director of Disease Control and Environmental Sanitation, 2016). While cumulative HIV cases in Probolinggo district were 1,030 people began 2011-2015 and 317 people died (Yuliati, 2015).

According to age group of HIV cases were began 2014-March 2016 which were highest in the age group 25-49 years old a number of 23,512 people in 2014, a number of 21,810 in 2015 and a number of 4,979 until March 2016. The second highest of HIV cases in age group 20-24 years old were 4,894 people in 2014, a number of 4,871 in 2015, a number of 1,186 until March 2016. The third highest of HIV cases were found in the group aged  $\geq 50$  years old were 1,816 in 2014, a number of 2,002 in 2015, a number of 513 until March 2016. The pattern of HIV transmission based on age groups during the past five years was occurred in the productive age group (General Director of Disease Control and Environmental Sanitation, 2016).

Based on sex, HIV cases occur at women is also highest. HIV cases in 2014 were 19,244 at men and 13,467 at women; in 2015 were 18,362 at men dan 12,573 at women. While HIV cases in January-March 2016 were 4,333 at men and 2,813 at women (General Director of Disease Control and Environmental Sanitation, 2016).

According to UNAIDS data in 2015, HIV patients who receive ARV were 15.8 million in 2016, and until June, patients with HIV who receive ARV were 18.2 million or approximately 49%. While the Data recipient ARV in Indonesia in 2014 at men were 57,788 and 32,545 at women, in 2015 at men were 73,632 and 42,179 at women, in January-March 2016 at men were 77,432 and 44,576 at women. A number of patients HIV that on HIV treatments in 2014 were 101,268 at men and 58,974 at women, in 2015 at men were 121,180 and 71,278 at women, until March 2016 were 126,795 at men and 74,512 at women.

According to Data of Health Ministry number 451/ Health Ministry/ decree/II/2012 about refferal hospitals for PLWHA in Indonesia are 358 hospital. The service for ARV in probolinggo district East Java one of them is Waluyojati hospitals. According to data of Clinic VCT until November 30rd 2015 recorded a number of 657 patients had recieved ARV. Of the 657 patients as many as 49 people were died, 10 people referred and 20 people drop out ARV. Whereas a routine control as scheduled and regularly drank as many as 273 people ARV and irregular ARV drinking as much as 297 people (Clinic VCT, 2015).

Somebody that infected by HIV or AIDS caused by several factors, i.e the **host factors** include injecting drug users, community groups who promiscuity such as WSW (Women Sex Worker), MSM (Men Sex Men), Inmates and bummer of childrens, recipients of blood transfusion that infected with HIV, a recipients of donor organs and health workers are a susceptible group to infect of HIV, age factor when infected by HIV; the second factors i.e **agency factors and environmental factors** (Green, 1991). The service of HIV is limited by the socio-cultural barriers, location (geographycal position) and the lack of financial support (Yuniar, 2013).

Factors affecting adherence to ARV medications according to L. Green that are a predisposing factor (level of knowledge, attitude, trust, belief, values); In addition, according to Roger, the self concept is also factor that influence someone to do (Green, 1991). Adherence is the level of a person to abide by the rules and behavior that suggested by health workers (Notoatmodjo, 2010).

According to Peltzer said that adherence when patients not only regularly treatment according to time to follow up, but also regularly drank the medicine as suggested by health workers (100%). While not adherence i.e. patients who dropped out of medical treatment or not at all (99%) ≤ (Peltzer, 2010).

Self concept is the views and attitudes of individuals towards thierself. In addition, self concept is the way of individuals to view theirself i.e physical, psychological, social (Hamim, 2015). The result of Sapiq (2015) about the relationship of self efficacy and compliance with self medication in people with TB that has similarities with the rules taking the medication of ARV shows that it is a significant relationship.

The second factors according to L. Green that are enabling factor (availability of facilities, infrastructure health); the reinforcing factors (attitudes and behaviour of health workers and other officers) (Green, 1991). The result of Sugiharti., et all in 2012 shows that other factors cause low adherence to ARV medications is fear to know of their status in society, lack of knowledge about the important of regularly treatment, depression, didn't believe in medicine, forget to drink the medicine and fear of side effects caused by a treatment (Sugiharti, 2012).

Impact someone infected by HIV or AIDS i.e slowly decline of the immune system, so that if they infected by other disease which is usually not dangerous will impact the death and other impact caused by medication ARV treatment failure i.e. resistance and the risk of drug toxicity. Quality of life of PLWHA who take ARV with the routine will be increased (Nhan, 2012).

Efforts that can be done to decrease of HIV/ AIDS cases with primary, secondary and tertiary prevention. One of them is to prevent replication of HIV, need a treatment. Treatment that can prevent it i.e. ARV (Anti Retro Viral) (UNAIDS, 2009). While the Effort can be done to improve adherence that is colaboration of multi sectors including support of supervisor to take, support of friends, family, case manager, health workers, AIDS Eradication Commission and non-governmental organizations (NGO).

Based on background, the researchers are interesting to study about "to analysis the relationship of self concept with medication adherence to ARV in HIV-positive women's reproductive in Poly VCT Waluyojati General Hospital Probolinggo Indonesia".

## **Methods**

### ***Study Design***

The methods use analytic correlational with cross sectional study. The study population all HIV-positive women on reproductive age who visit and get treatment medication to ARV in Clinic VCT Waluyojati General Hospitals are 81 people and the sample of this study are 68 people who HIV-positive women on reproductive age who visit and get treatment medication to ARV in Clinic VCT Waluyojati General Hospitals. The sampling technique using consecutive sampling. This study was conducted for 2 weeks in January 2017. The inclusion criteria is women respondent that ready to be a respondent and have reproductive age. Whereas exclusion criteria is respondent that is process on TB treatment.

### ***Materials***

The instrument in this study using questionnaire that given to respondents after validity and reliability test in other respondent that has similarities with them. The content were grouped as sections: Socio demographic Information; Self concept assesment; and adherence medication to ARV. For socio demographic information, Self concept assesment; and adherence to ARV medication were developed by the researcher based on information gathering during review of literature. The socio demographic characteristics i.e age, level of education, employment, income per month, Live status, long consumption of ARV.

### ***Data Collection***

The first, researcher explain the study procedures then asking informed consent to respondent, to be signed by the respondent. Next, giving the questionnaire form and describes how to fill it aboth respondent and case manager. The questionnaire of case manager is intended to check the answers of the patient about the medication ARV adherence. The results of data collection with recheck then after that is collected, then data processing and analysis.

### ***Analysis***

Data entry and analysis was done using SPSS 16 (*Statistical Package for the Social Sciences*) for windows and statistical test analyzed with Pearson Product Moment.

### **Result**

The researcher get information from 68 respondent (HIV/ AIDS patient) such as age, Level of education, employment, income per month, Live status, Long consumption of ARV and self concept assement and adherence to ARV medication i.e:

#### ***Socio-demographic Characteristics***

Based on table 1 of 68 respondents fulfill of inclusion criteria shows that distribution of age almost all of the respondents i.e. 60 people was 25-49 years old (88.2%) and 15-19 years old (4.4%). Whereas distribution level of education was majority of the respondents has level of education at elementary school i.e. 48 people (70.6%) and it only has level at college and no formal education i.e each 1 person (1.5%). About employment majority of the respondents as house wife i.e. 48 people (70.6%) and none of them as civil servants (0%). Then Income per month in rupiah (Rp) majority of the respondents got <500,000 was 45 people (66.2%) and got income between 500,000-1 million was 11 people (16.2%).

All of them live with their families (100%) and about long consumption of ARV majority of them as many as 52 people (76.5%) was consumption ARV  $\geq 6$  month.

#### ***Distribusion of Self Concept and Adherence to ARV Medication***

Respondents whose good self concept i.e almost of them that was  $\geq 66$ -100% (good), and none of them has self concept < (low) (0%). Whereas the respondents whose adherence to ARV medication almost of them has not adherence to ARV medication i.e 54 people (79.4%) and only 14 people (20.6%) that adherence to ARV medication.

#### ***Bivariat Analyses of Self Concept and Adherence to ARV Medication***

Bivariat analysis results with pearson product moment test obtained  $P\ value = 0.167 > \alpha 0.05$  which means no relationship of self concept with medication adherence to ARV in HIV-positive women's reproductive in Poly VCT Waluyoajati General Hospital Probolinggo Indonesia.

Table 1: Socio-demographic Characteristics

Characteristics	n=68	%
<b>Age (Years)</b>		
15-19	3	4.4
20-24	5	7.4
25-49	60	88.2
<b>Level of Education</b>		
No formal education	1	1.5
Elementary School	48	70.6
Primary High School	10	14.7
Secondary School	8	11.8
College	1	1.5
<b>Employment</b>		
House wife	48	70.6
Student	1	1.5
Private Sector	5	7.4
Entrepreneur	14	20.6
Civil servants	0	0
<b>Income (Rp)</b>		
< 500,000	45	66.2
500,000 - 1.000,000	11	16.2
>1,000,000	12	17.6
<b>Live Status</b>		
With Friends	0	0
Alone	0	0
With Family	68	100
<b>Long consumption of ARV (Month)</b>		
<6	16	23.5
≥6	52	76.5

n is a number of sample

Table 2: Distribution of Self Concept

Characteristics	n=68	%
<33% (Low)	0	0
34-65% (Enough)	14	20.6
≥66-100% (Good)	54	79.4

Table 3: *Distribution of Adherence to ARV Medication*

Characteristics	n=68	%
≤99% (Not adherence)	54	79.4
100% (Adherence)	14	20.6

## Discussion

### *The Self Concept at HIV-Positif on Women*

In this study the results of 68 respondents (Table 2) shows that Respondents whose good self concept i.e almost of them that was  $\geq 66-100\%$  (good), and none of them has self concept  $<$  (low) (0%).

Self concept is the views and attitudes of individuals towards thierself. In addition, self concept is the way of individuals to view their self i.e physical, psychological, social (Hamim, 2015). Aspects of self concept according to Agustiani (2006) is the identity of the individual himself, "who I am", behavior of theirself, self perception of the individual that the way to Act is followed by consequences from the inside, from the outside or both. Assessment is individual assessment itself.

Factors that affect Self Concept according to Amaliah (2016) i.e internal factors including Intelligence, motivation, emotions, personal competence, success and failure, health status, age, perception, physical appearance, sex, self-actualization, stress. Whereas external factors including the elderly, families, peers, role of educator, culture, social status, interpersonal experience.

Based on the above theory, one of the factors that affect a person's self concept is the age factor. It is in accordance with the results of this study on table 1 that distribution of age almost all of the respondents i.e. 60 people was 25-49 years old (88.2%) and 15-19 years old (4.4%). According to Azizah (2011) that more mature the age of someone will occur the degenerative process that impact at changes the physical, cognitive, social, mental, and sexual feelings, psychosocial and spiritual concepts including theirself. Another factor is the role of the family. The results in table 1 of 68 respondents that respondents live with their family (100%). The family is two or more individuals living in the same House that it has in one heredity, marriage and interacting with each other to conduct their roles. The role of the family can be the mother, the father, the son that one of its functions is health care and provide support.

Results of the study of Phillips (2007) about social support, coping and medication adherence among HIV-positive women with depression of living in Rural Areas of the southeastern United States shows that social support in this family affect adherence treatment to drink ARV.

### *Adherence to ARV Medication at HIV-Positive Women*

The results in table 2 of 68 respondent shows that the respondents whose adherence to ARV medication almost of them has not adherence to ARV medication i.e 54 people (79.4%) and only 14 people (20.6%) that adherence to ARV medication.

According to the Health Ministry (2011) in adherence which is a form of behaviour that happen caused by interaction between health workers and patients so that patients understand the plan with all its consequences, agree and patients willing to conduct it. The factors that influence of adherence according to Root (2013) i.e communication, knowledge, health facilities. According to Yuniar (2013) the factors that support adherence

of ARV medications i.e internal factors include motivation, perceptions about the severity of the disease, beliefs, level of knowledge and external factors include services factors, social support from family, peer group, NGOs, health worker, stigma and discrimination, the availability and affordability of drugs.

The results in table 1 about level of education that majority of the respondents has level of education at elementary school i.e. 48 people (70.6%) and it only has level at college and no formal education i.e each 1 person (1.5%). It is accordance with statement of Suhardi (2007), the higher of the educational level, so that the higher level of knowledge of the person.

The results in table 1 about level of education shows that most of respondents has elementary school level, will affect the individual's response of knowledge about ARV and the importance of adherence to drinking ARV, despite of knowledge is also influenced by other factors such as information that ever recieved.

### ***The relationship of Self Concept with medication adherence to ARV in HIV-positive women's reproductive***

Bivariat analysis results with pearson product moment test obtained  $P\ value = 0.167 > \alpha 0.05$  which means no relationship of self concept with medication adherence to ARV in HIV-positive women's reproductive in Poly VCT Waluyoajati General Hospital Probolinggo Indonesia.

Self concept is the views and attitudes of individuals towards thierself. In addition, self concept is the way of individuals to view theirself i.e physical, psychological, social (Hamim, 2015). Adherence is a form of behaviour that happen caused by interaction between health workers and patients so that patients understand the plan with all its consequences, agree and patients willing to conduct it (Health Ministry, 2011).

Factors that affect Self Concept according to Amaliah (2016) i.e internal factors including Intelligence, motivation, emotions, personal competence, success and failure, health status, age, perception, physical appearance, sex, self-actualization, stress. Whereas external factors including the elderly, families, peers, role of educator, culture, social status, interpersonal experience. The factors that influence of adherence according to Root (2013) i.e communication, knowledge, health facilities. According to Yuniar (2013) the factors that support adherence of ARV medications i.e internal factors include motivation, perceptions about the severity of the disease, beliefs, level of knowledge and external factors include services factors, social support from family, peer group, NGOs, health worker, stigma and discrimination, the availability and affordability of drugs.

The other factors that influencing of adherence are economic status or income. This is supported by the results in this study on table 1 of 68 respondents Income per month in rupiah (Rp) majority of the respondents got <500,000 was 45 people (66.2%) and got income between 500,000-1 million was 11 people (16.2%).

The results of the study shows that most of the repsonden have income < 500,000. The higher income or economic status will be higher amount, kind of goods and services that reached for example transportation services and others that can affect someone for being able to regularly visit to health facilities with distance between home and health services that different on each person.

It is in accordance with the results of the study of Bermudez., et all (2016) about equity in adherence to antiretroviral therapy among economically vulnerable adolescens living with HIV in Uganda shows that the economic status is significant and have a positive impact on adherence tretment in adolescents who are living with HIV in Uganda.

Factors affecting adherence not only the self concept. However, there are still many other factors that affect adherence to drink ARV i.e. long consumption of ARV. It is in accordance with the results of this study on table 1 of 68 respondents that majority of them as many as 52 people (76.5%) was consumption ARV  $\geq 6$  month.

The ARV is therapy that given to HIV patients that must be drank for lifetime. The side effects of ARV treatment have different effect on each of them from mild side effect i.e. causes headache, nausea vomiting, diarrhea, increased cholesterol up to blood sugar levels and liver disfunction.

## **Conclution**

The respondents whose good self concept i.e almost of them that was  $\geq 66-100\%$  (good), and none of them has self concept  $<$  (low) (0%). Whereas the respondents whose adherence to ARV medication almost of them has not adherence to ARV medication i.e 54 people (79.4%) and only 14 people (20.6%) that adherence to ARV medication. However, the results with pearson product moment test obtained  $P\ value = 0.167 > \alpha 0.05$  which means no relationship of self concept with medication adherence to ARV in HIV-positive women's reproductive in Poly VCT Waluyoajati General Hospital Probolinggo Indonesia.

## **Recommendations**

### ***For health worker (Midwife)***

We recommendation that you often give guidance about adherence to ARV medication and the importance of integration of HIV testing in women especially pregnant women, so that the HIV/ AIDS not transmittion to her baby to remember about this case that increasing every year.

### ***For The Next Researcher***

We give recommendation on next study that you must conduct to control confounding variable and partisipatory observations to search for the real cause of someone not adherence to ARV medication.

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