



## Adherence with Antiretroviral (ARV) Treatment of People with HIV (ODHIV) at Teladan Medan Health Center

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Track Record Article	Abstract
<p>Accepted : 20 October 2024 Revised: 30 November 2024 Published: 30 December 2024</p> <p><b>How to cite :</b> Siregar, S. F., Nababan, D., Sinaga, J., Ginting, D., &amp; Sirait, A. (2024). Adherence with Antiretroviral (ARV) Treatment of People with HIV (ODHIV) at Teladan Medan Health Center. <i>Contagion : Scientific Periodical of Public Health and Coastal Health</i>, 6(2), 1574–1587.</p>	<p><i>Indonesia is the 5th most at-risk country for HIV/AIDS in Asia. HIV/AIDS cases have become a problem in the world and are the 4th leading cause of death. In overcoming the issue of HIV/AIDS, patients must take antiretroviral drugs which only improve the quality of life. However, in reality, there are still many sufferers who are not compliant with the treatment being carried out. This study aims to analyze the factors that influence compliance with ARV treatment at the Teladan Medan Health Center. This study uses a quantitative research type with a descriptive approach. The study was conducted on PLHIV at the Teladan Medan Health Center starting from September 2023 - March 2024. The study population was 1,356 people, and the sample was taken from 150 people using a purposive sampling technique. The instruments used were adopted from previous studies that had been tested for validity and reliability and for the saturation variable using the medication saturation questionnaire by the Maslach Burnout Inventory. The results of the study showed that the majority of knowledge of PLHIV at Teladan Medan Health Center was in the good category as many as 121 (80.7%), the distance of PLHIV health services to the Health Center was mostly far as many as 90 (60%), the majority of PLHIV had experienced side effects as many as 111 (74%), the majority of PLHIV had experienced stigma as many as 89 (59.3%), boredom as many as 98 (65.3%) and the majority of PLHIV did not receive support in ARV treatment as many as 114 (76%). It can be concluded that the factors that influence adherence to ARV treatment are knowledge, distance of service, side effects of drugs, stigma, boredom and family support.</i></p> <p><b>Keywords:</b> <i>Antiretroviral, Human Immunodeficiency Virus , Adheremce</i></p>

## INTRODUCTION

People with Human Immunodeficiency Virus (PLHIV) need treatment with antiretrovirals (ARVs) to reduce the amount of HIV in the body so that it does not enter the AIDS stage and prevent opportunistic infections and their complications (Kusdiyah, 2022). PLHIV who receive treatment must comply with taking ARV drugs for life, on time and with discipline. Compliance with taking medication in PLHIV includes accuracy in time, amount, dose and how individuals consume their medication. Non-compliance in implementing therapy will reduce the effectiveness of ARV drugs and even increase viral resistance in the body (Puspitasari, 2016).

The case of HIV/AIDS itself has become a problem in the world and is the 4th highest cause of death, *World Health Organization* (WHO) in 2020 was 37.7 million and in 2022 it increased to 39.0 million people infected with HIV and as many as 630,000 people in the world died from HIV. The population with the highest cases of HIV/AIDS is in the United States and 3.5 million people (WHO, 2023). It was also reported that 86% of people with HIV (PLHIV)

knew their status, 76% of PLHIV received antiretroviral therapy (ARV) and 71% checked the virus in the blood through *viral load* (WHO, 2023).

Indonesia is the 5th country at the highest risk of HIV/AIDS in Asia. The development of HIV and AIDS in Indonesia was reported that in 2020, 41,987 PLWHA were found and 32,925 PLWHA started ARV treatment. The cumulative number of HIV and AIDS cases up to December 2020 was 549,291 cases (Kemenkes RI, 2020). In 2021, the number of PLWHA found was 36,902 people and 30,160 PLWHA started ARV treatment. The cumulative number of HIV and AIDS cases up to December 2021 was 456,453 cases (Kemenkes RI, 2021).

North Sumatra Province ranks 6th in terms of HIV/AIDS cases throughout 2022. Based on the report of the North Sumatra Provincial Health Office in 2020, it was reported that the number of PLWHA found was 2,193 people and PLWHA who started ARV treatment was 1,672 people (76%). In 2021, the number of PLWHA found was 1,904 people and PLWHA who started ARV treatment was 1,562 people (84%). In January - September 2022, it was reported that the number of PLWHA found was 2,021 people and PLWHA who started ARV treatment was 1,678 (83%) (Dinkes Provinsi Sumut, 2022).

Medan City is one of the cities with high HIV/AIDS cases, in 2021 it was reported that the number of PLHIV was 17,211 and PLHIV started treatment as many as 11,679 people. Of the tens of thousands of cases, only 2,022 were checked for *viral load* (VL) and as many as 1,459 VL were suppressed. In 2022, the number of PLHIV was 18,758 and PLHIV started treatment as many as 13,162. Of the number of cases, 1,219 people underwent VL examination and only 66 people had VL suppressed. Many factors cause PLHIV not to do VL and the results are not suppressed, one of which is not being compliant with taking ARV drugs (Dinkes Kota Medan, 2022).

Antiretroviral (ARV) therapy is one way to slow the growth rate of HIV. The success of Antiretroviral (ARV) treatment depends on HIV/AIDS patients maintaining a level of adherence of at least 95% of all prescribed drug doses (Ratnawati, 2018). In June 2020, of the total 38 million people living with HIV, 26 million had access to antiretroviral (ARV) therapy. This treatment also produces a suppressed *viral load* that prevents the spread of HIV. And by the end of 2020, 12 million people living with HIV were at risk of dying from AIDS if they did not get treatment. Although effective treatment is available, almost more than 700,000 people died from AIDS (UNAIDS, 2020).

Based on the ARV *cascade* in Medan City in 2022, as many as 89% of HIV/AIDS sufferers have received ARVs at HIV/AIDS services in Medan City, but of the 89% who have

received ARV treatment, not all of them are compliant in taking their medication (Dinkes Kota Medan, 2022). ARV coverage that has not met the minimum target of the PDP program based on the ASEAN *Declaration of Commitment* can lead to failure in the goal of completing 3 zeros by 2030.

One of the HIV/AIDS services in Medan City is the Teladan Medan Health Center which is ranked 3rd in terms of the number of cases. Based on the Monthly Report on HIV and ART Care (LBPHA), shows that over the past 3 years, the number of HIV-positive cases at the Teladan Health Center has increased, in 2020 there were 923 cases, in 2021 it increased to 1,046 cases, in 2022 it increased again to 1,250 cases and the number of positive cases up to August 2023 was 1,367 cases. The number of HIV-positive patients up to August 2023 was 1,367 people, patients on ART were 847 people, and patients who were not compliant with treatment (alpha) in August 2023 were 303 people. Researchers also conducted interviews with 10 PLHIV at the Teladan Health Center.

Based on the interview results, 4 of them did not know the impact and importance of compliance in taking ARV drugs so it was found that there were still a lot of drugs left over. Various reasons patients forgot to take their medicine said they fell asleep because, after work, the medicine was left behind when on duty out of town and did not set an alarm so they often missed the time. Many PLHIVs cannot get medicine because of the distance to access treatment at the Health Center. PLHIV choose treatment that is far from their homes because they are afraid of getting negative stigma from the community and their families so they choose a place to get medicine that is far from their home environment. Not only that, PLHIV feel that when taking ARV drugs they become dizzy, and easily hallucinate and also their skin colour becomes dark so they feel uncomfortable. If they feel these side effects, PLHIV will usually change their drug regimen so that they feel comfortable and continue to take their medicine. PLHIV also feel bored because they have to take ARVs every day. PLHIV said they had been ostracized by their families and neighbours because of their HIV status, this is also the reason why PLHIV are not compliant with taking ARV drugs. Thus, PLHIV must still be accompanied, to increase their motivation and enthusiasm to routinely take their medication. PLHIV certainly have families as supervisors in taking their medication. However, in reality, families or those who become PMOs never supervise PLHIV until the medication is swallowed.

Based on the background that has been explained by the researcher above, it can be seen that there is still non-compliance with ARV treatment in PLHIV. Therefore, it is necessary

to analyze compliance with antiretroviral (ARV) treatment of people with HIV (PLHIV) at Teladan Medan Health Center.

## METHODS

This study uses a quantitative research type with a descriptive approach. This study aims to see the level of compliance with antiretroviral (ARV) treatment of people with HIV (PLHIV) at the Teladan Medan Health Center. This study was conducted at the Teladan Health Center which was implemented from September 2023 - March 2024. The population in this study was 1,356 people. The sample was calculated using the *Lemeshow formula*, obtaining a research sample of 150 people. Sampling used a *purposive sampling technique* with the inclusion criteria of PLHIV who were undergoing ARV treatment for at least 1 month at the Teladan Medan Health Center and PLHIV with functional work standards or could be treated as outpatients.

The research instrument used a questionnaire, the medication adherence variable was measured using a questionnaire adopted from Adriani's (2022) research which had been tested for validity and reliability. The burnout variable used a standard questionnaire to measure the level of burnout from *the Maslach Burnout Inventory* (2011). Data analysis used correlation tests and linear regression tests. A research ethics permit letter was obtained from the Research Ethics Committee of Sari Mutiara Indonesia University Number 3035/F/KEP/USM/VII/2024.

## RESULTS

The frequency distribution of characteristics of PLHIV and factors influencing ARV compliance are presented in the following table :

**Table 1. Frequency Distribution of Characteristics of People with HIV (ODHIV) at Teladan Public Health Center, Medan**

Variables	Frequency	%
<b>Age Category</b>		
20 – 24 years	15	10.0
25 – 49 years	132	88.0
≥ 50 years	3	2.0
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Gender</b>		
Man	140	93.3
Woman	10	6.7
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Education</b>		
Graduated from elementary school	5	3.3
Graduated from junior high school/Islamic junior high school/junior high school	9	6.0

Variables	Frequency	%
Graduated from high school	81	54.0
Graduated from D3/S1/College	55	36.7
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Employment status</b>		
Work	136	90.7
Doesn't work	14	9.3
<b>Total</b>	<b>150</b>	<b>100</b>

Based on table 1, shows that the majority of PLHIV at Teladan Medan Health Center in the age category of 25-49 years, as many as 132 (88%), are male, as many as 140 (93.3%), with the last education level of graduating from high school, as many as 81 (54%). The majority of PLHIV have a working employment status, as many as 136 (90.7%).

**Table 2. 2Distribution of Age and Duration of Antiretroviral (ARV) Treatment for PLHIV at Teladan Medan Health Center**

	N	Mean	Median	SD	Min	Max
<b>Age (years)</b>	150	32.57	32.00	6,935	20	57
<b>Duration of treatment (months)</b>	150	62.65	67.00	27,166	13	118

Based on Table 2, the results of the study show that the average age of PLHIV is 32.57 years with a standard deviation of 6.935 years. The youngest age of PLHIV is 20 years old and the oldest age is 57 years old. The duration of treatment of PLHIV is obtained on average PLHIV have a duration of treatment of 62.65 months with a standard deviation of 27.166 months. The lowest duration of treatment is 13 months and the highest age is 118 months.

**Table 3. 3Distribution of Factors Influencing ARV Compliance of PLHIV at Teladan Medan Health Center**

Variables	Frequency	%
<b>Knowledge</b>		
Good	121	80.7
Not good	29	19.3
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Distance of health services</b>		
Far	60	40.0
Near	90	60.0
<b>Total</b>	<b>150</b>	<b>100</b>
<b>ARV side effects</b>		
Once	111	74.0
Never	39	26.0
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Stigma</b>		
Once	89	59.3
Never	61	40.7
<b>Total</b>	<b>150</b>	<b>100</b>
<b>Saturation</b>		
Fed up	98	65.3
Not saturated	52	34.7
<b>Total</b>	<b>150</b>	<b>100</b>

Variables	Frequency	%
<b>Family support</b>		
Support	36	24.0
Does not support	114	76.0
<b>Total</b>	<b>150</b>	<b>100</b>

Based on table 3, shows that the majority of knowledge of PLHIV at Teladan Medan Health Center is in a good category as many as 121 (80.7%). The distance of PLHIV health services to the Health Center is mostly far as many as 90 (60%). The majority of PLHIV have experienced side effects as many as 111 (74%). The results of the study showed that the majority of PLHIV had experienced stigma as many as 89 (59.3%) and experienced boredom as many as 98 (65.3%). The majority of PLHIV did not receive support in ARV treatment as many as 114 (76%).

**Table 4. 4Distribution of ARV Treatment Adherence at Teladan Medan Health Center**

ARV Treatment Adherence	Frequency	%
Not obey	83	55.3
Obedient	67	44.7
<b>Total</b>	<b>150</b>	<b>100</b>

Based on table 4, shows that the majority of PLHIV in Teladan Health Center are not compliant with ARV treatment as many as 83 (55.3%) and those who are compliant with ARV treatment are 67 (44.7%). ARV treatment adherence in this study is seen from the behaviour of PLHIV by the provisions (correct drug/dose, correct method, correct time) given by doctors/health workers.

## DISCUSSION

### 1. Knowledge Factor with ARV Treatment Adherence

Knowledge is a result of curiosity through sensory processes, especially in the eyes and ears towards certain objects. Knowledge is an important domain in the formation of open behaviour (Astuti et al., 2022). Knowledge is *the* result of human sensing or the result of someone knowing about an object through the five senses they have. A person's knowledge is mostly obtained through the sense of hearing and sight (Notoatmodjo, 2012).

The results of the study found that the majority of PLHIV had good category knowledge of 121 (80.7%). Good knowledge of PLHIV was due to frequent education. In line with Wulandari's research (2022) Good knowledge can be formed from education, although this study did not focus on education, the reason why the knowledge of PLHIV related to HIV/AIDS in this study was high, could be due to continuous education efforts. Education is carried out routinely by holding seminars every 2 weeks, from peer support groups. This

activity helps new PLHIV to know various things related to their disease and to be obedient in taking medication.

HIV sufferers who have good knowledge do not necessarily have high compliance. Compliance with ARV therapy can not only be influenced by the level of knowledge but is influenced by other things such as individual awareness factors and self-motivation, busyness (especially for people who already work), not being able to tolerate the side effects of drugs and being lazy to take drugs when they run out (Wulandari & Rukmi, 2022).

The results obtained in this study prove that PLHIV with good knowledge but are not compliant in undergoing treatment. PLHIV at Teladan Health Center has good knowledge because patients who read the results of the HIV test Doctors provide counselling related to HIV and ARV treatment so that PLHIV know how the frequency or dosage of ARV drugs, when to take the drug and how to take ARV drugs. In line with Aresta's statement (2019) which states that good knowledge is not always followed by positive attitudes and actions or vice versa with less knowledge can still behave and act positively. A person's attitude or action can be influenced by several factors.

Based on the results of the study of PLHIV who know in the good category, most PLHIV know in the good category regarding the function of ARV drugs, the impact of not taking ARVs and the frequency of taking ARVs per day. While a small number of respondents have a poor understanding of the mechanism of action of ARV drugs. The results of the study also found that the majority of PLHIV are not compliant with ARV treatment, this can be seen from PLHIV taking ARV drugs not at the same time every day which has an impact on the lack of efficacy of the ARV drugs.

Whether or not the category of knowledge of PLHIV has a good impact on whether or not PLHIV are compliant with ARV treatment. This non-compliance of PLHIV is because PLHIV feels bored taking medication every day. Then no support and motivation makes PLHIV enthusiastic about taking ARVs, especially from the family. Not to mention the side effects of ARVs that make PLHIV uncomfortable in their activities. So it is found that even though PLHIVs have good knowledge if there is no motivation to minimize boredom, motivation to consult with health workers about the side effects they feel and the lack of family support, it will make PLHIV non-compliant with ARV treatment.

## **2. Health Service Distance Factor with ARV Treatment Adherence**

The distance between health services and home affects the behaviour of using and utilizing health services (Astuti et al., 2022). Most PLWHA said that the unreachable distance to ARV service locations was one of the factors that caused PLWHA to be lazy about taking ARV routinely every month.

The results of the study found that the majority of the distance between the homes of PLHIV and health services was in the far category. Low non-compliance of PLHIV was caused by the distance of health services from their homes. According to Anderson's theory (1979), there is a relationship between the distance variable and the utilization of health services. Distance is included in the community resource factor. The closer the distance of health services to the community's residence, the more people will utilize health services.

Based on the utility theory by Green (2011) the supporting factors for a person's desire to utilize services include distance and ease of obtaining health services. Various things that can be obstacles for someone to access health services such as roads with poor conditions, long distances and difficulty in accessing service facilities can make people reluctant to utilize health services in their area. The use of health services by people who have homes far from the Puskesmas still utilize health services because there are no other health service options in the area.

Based on the research results, it was found that the majority of PLHIV have a long distance from home to the Health Center. The location where ARV drugs are taken far from home is chosen by PLHIV so that the surrounding environment does not know that they have HIV. However, PLHIV were found to be non-compliant with ARV treatment, this is an obstacle for PLHIV to take ARV drugs on time. The long distance makes PLHIV lazy to return to take ARV drugs, not to mention the long queues at the Health Center so PLHIV need a long time to wait and also a long time to get to the Health Center. Several times PLHIV were advised to take drugs at the Health Center closest to home, but PLHIV did not want to because they were afraid that their HIV status would be known by neighbors, family and even friends.

### **3. Factor of ARV Side Effects with ARV Treatment Adherence**

ARV drugs themselves were discovered in 1996 and have successfully reduced mortality rates by 80-84% in developing countries. PLWHA who consume ARV drugs will reduce transmission to heterosexual partners by 92%, but several factors inhibit compliance in consuming ARV drugs, including side effects of drugs that will be experienced by PLWHA, such as nausea, fever, rashes on the skin, like a drunk person (Sugiharti, 2012). Non-compliance in undergoing *antiretroviral therapy* (ART) will reduce the effectiveness of

antiretroviral drugs (ARVs) and will increase HIV resistance in the body (Djoerban & Djauzi, 2014).

The results of the study found that PLHIV who experienced side effects from drugs tended to be non-compliant with treatment. This is because PLHIV feel uncomfortable with the side effects they experience. Most patients cannot stand the side effects they experience due to taking drugs at the beginning of therapy. Sitorus (2021) stated that PLHIV who undergo this treatment face a big challenge regarding the side effects they will receive. Patients who have received ARV therapy generally suffer from side effects.

PLHIV feel that ARV drugs do not cure but worsen their illness because of the side effects that arise after taking ARV drugs. The side effects that arise due to drug reactions in the body make patients misunderstand the usefulness of ARV drugs. In line with Tadesse (2014) who stated that as a result, HIV patients feel that the drug increases their body pain.

Then, side effects will also be felt in the first 6-12 months of treatment. In line with research by an expert in Nigeria who revealed that side effects of drugs are more likely to occur in patients undergoing antiretrovirals in the first six months of treatment, namely 6-12 months and 12-24 months compared to those who have been on antiretroviral therapy for a long time (Isnaini et al., 2023). Most PLHIV at Teladan Health Center cannot stand the side effects felt due to taking drugs at the beginning of therapy. Tadesse (2014) stated that this is what makes sufferers stop therapy in the first year due to side effects of drugs and sufferers do not take the recommended dose because they are afraid of the side effects caused by ARVs.

The side effects felt vary depending on the type of antiretroviral drug consumed. The occurrence of side effects is usually a medical reason to change ARV drugs for patients. Although each sufferer will show different side effects, the side effects felt are disturbing for a fairly long period. When compared to the general population, the probability of PLHIV patients experiencing side effects from drugs is greater (Sari et al., 2021). The role of nurses is very important in providing counselling and health education about ARV side effects and their treatment, the importance of compliance, drug interactions, and everything related to ARV treatment. An equally important role is to regularly monitor patients for early detection of ARV side effects and to be able to immediately deal with side effects that arise together with doctors other health workers and the patients themselves.

#### **4. Stigma Factor with ARV Treatment Adherence**

In today's society, a major challenge faced by patients with HIV infection in addition to the development of the disease that affects their health is the thick stigma of society regarding the disease and its sufferers. Stigma regarding HIV/AIDS patients means a deviant attitude and/or based on certain beliefs towards HIV/AIDS patients and disease that grows in society so they also believe that groups of patients with HIV infection are socially unacceptable (Wayan & Wijaya, 2024).

The results of the study found that the majority of PLHIV at Teladan Medan Health Center had experienced stigma and were not compliant with ARV treatment. Stigma and discrimination against patients diagnosed with HIV occur in various aspects of daily life. In line with Fauk (2021), PLHIV experiences stigma and discrimination, this is due to a lack of knowledge about HIV, misperceptions about HIV transmission, excessive fear of transmission, and negative views that are generally attached to HIV patients.

Discrimination experienced by PLWHA makes them withdraw from their surroundings, and the stigmatization that develops in society regarding HIV and AIDS is a death sentence for them, thus limiting their freedom of movement in carrying out their previous activities. The events experienced make them cover up their identities. Stigmatization is the act of ostracizing someone for doing something shameful or deviating from the social norms that apply in society (Daramatasia & Kurniyanti, 2021).

Based on the research results, it was found that the majority of PLHIV did not disclose their disease status to their families or people around them because of the negative stigma about HIV which makes PLHIV discriminated against. In line with Fauk (2021), the stigma against HIV patients is not only obtained from the external environment, but also from family members, partners, friends, and people in the work environment. A person's tendency to hide their HIV status due to the pressure of stigma from society can lead to a lack of prevention of transmission through safe sexual activity with a partner. In other words, stigma is often obtained by patients after disclosing their HIV status to others.

Stigma and discrimination against patients diagnosed with HIV/AIDS are some of the obstacles in efforts to improve the quality of life of patients, including compliance with treatment and daily social life. Stigma and discrimination can occur in various plots of community life, including in hospitals, work environments, families, and in the community. Eliminating stigma and discrimination forever is one of the pillars of efforts to eradicate HIV/AIDS cases worldwide. In realizing this goal, cooperation is needed from various parties including the role of government, health services, and the community.

## 5. Level of Saturation with ARV Treatment Adherence

The saturation of PLHIV is felt because they have to take medication for the rest of their lives every day and cannot be missed. ARV therapy is consumed for life since it is determined by the doctor diagnosed with HIV. The ability of patients to behave consistently in taking medication and control properly is a difficult challenge to maintain. Many PLHIVs feel bored with the routine of taking medication (Sugiharti, 2014).

The results of the study found that the majority of PLHIV felt bored so they were not compliant with ARV treatment. The cause of non-compliance with taking medication was boredom with taking ARVs every day. In line with Sigalingging (2022), one of the factors causing low medication compliance in HIV sufferers is boredom and boredom in taking ARV drugs because they have to take the same medicine every day and nothing can be missed for life (Sigalingging et al., 2022). The level of compliance is influenced because patients are bored and feel bored of taking ARV drugs continuously (Hidayati et al., 2018).

The results of the study found that the cause of non-compliance in taking medication was boredom so they were too lazy to take ARVs and felt unwell after taking ARVs. According to Astina (2023), boredom is a feeling that arises from the PLWHA themselves. Boredom can occur because sufferers have never been in the AIDS stage and are tired of taking medication continuously for a long time, even for life (Astina, 2023).

PLHIV at Teladan Medan Health Center feels bored with the ARV treatment that is carried out every day and the side effects of ARV drugs that cause discomfort when consumed. According to Sugiharti in Suprihatin (2019), boredom usually occurs when HIV sufferers have been taking ARV drugs for 6 months because HIV sufferers have to take medicine every day and are already bored or feel healthy. The low level of HIV compliance that is treated for > 7 months can also be due to other inhibiting factors such as medical costs, drug side effects, and stigma from the environment that makes most HIV sufferers feel uncomfortable.

## 6. Family Support Factors with ARV Treatment Adherence

Consistent medication adherence is essential to prevent these potential effects. Medication adherence is based on dose, frequency, and time to describe the correct medication behaviour of the patient. Adherence refers to patient adherence to medication based on self-awareness (Mufarika, 2019). Family support greatly influences medication adherence, because there is encouragement from the family who are willing to accept the status of the disease experienced and support the success of the treatment (Junaiddin, 2019).

PLHIV at Teladan Health Center do not receive family support and are not compliant with taking ARV treatment. In line with the research of Anasari & Trisnawati (2018), it was found that PLHIVs who do not receive family support are mostly non-compliant in taking ARVs. Lack of family support is caused by respondents not wanting to tell their family about their status as PLHIV. Respondents are worried about being ostracized in their environment, because of this, respondents do not have a PMO (Drug Companion), the role of PMO is very important because it is tasked with reminding PLHIV to take ARV medication regularly. The absence of a PMO makes PLHIV sometimes forget to take their medication. Irmawati (2019) stated that lack of family support is caused by respondents not wanting to tell their status as PLHIV. This is because PLHIV are afraid of being discriminated against which can worsen their psychological condition, such as feeling frustrated with their HIV status and deciding to stop ARV therapy.

Family can be a very influential factor in determining individual health beliefs and values and has a major role in increasing treatment compliance, namely by supervising and providing encouragement to PLWHA (Dahoklory et al., 2019). Family support is very important in increasing PLWHA's self-confidence to be able to live longer by obediently taking ARV medication. ARV treatment must be carried out for life, without family support, PLWHA finds it difficult to be obedient in taking ARV medication (Junaiddin, 2019).

Family support is a process of inter-family relationships that are shown through attitudes, actions and family acceptance that occurs during life. Family support can be in the form of internal support that can be received from a husband, wife, or support from siblings and can also be in the form of external support from the nuclear family. The support provided by the family is in the form of emotional support, appreciation support, informational support and instrumental support (Marilyn et al., 2019).

## CONCLUSIONS

Based on the results of the study, it can be concluded that although most PLHIV have good knowledge about HIV/AIDS and ARV therapy, good knowledge is not always followed by compliance. Side effects of ARV drugs such as nausea, skin rashes, and discomfort make PLHIV tend to be non-compliant in undergoing therapy. Stigma from society, family, and the work environment has an impact on non-compliance with ARV treatment, due to fear of discrimination. Boredom due to the routine of taking medication for life is one of the main

causes of non-compliance. Lack of family support, due to PLHIV's concerns about discrimination if their status is known, causes low compliance.

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