Influence Family Support and Level of Compliance in Taking Medication to Quality of Life for People with HIV/AIDS at the Sehat Peduli Kasih Foundation Semarang City

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Abstract: HIV is a global health problem and a social challenge for sufferers. Indonesia is the country with the 14th highest estimated ODHIV in the world with a total of around 570,000 people, Indonesia is also ranked 9th in terms of new cases of HIV infection which reached 28,000 cases in 2023. The severity of the problems faced by ODHA can affect their quality of life, therefore patients with HIV/AIDS need support and encouragement from family, peers, and health workers to be able to improve their health. This research aims to analyze the influence of family support and drug compliance levels on the quality of life of people with HIV/AIDS (ODHA) at the Sehat Peduli Kasih Foundation of Semarang City. This research uses a cross-sectional study design. The case population is all patients who are diagnosed with HIV/AIDS and receive assistance from the Semarang City Sehat Peduli Kasih Foundation, the affordable population is all patients aged 20-49 years and receive ARV therapy. The sampling technique in this study uses the purposive sampling method according to the criteria desired by the researcher. The total sample is 63 people. Bivariate analysis using Chi Square test and multivariate analysis using double logistic regression test. Multivariate test proved that drug compliance and family support were proven to affect the quality of life of people with HIV/AIDS with a p-value = 0.000 greater than 0.05. Further analysis shows that the drug compliance variable is the most dominant influence on the quality of life of people with HIV/AIDS with a 95% CI value of 28,000 (6,670 - 117,537). Compliance with medication, family support, marital status, and education level are proven to have an impact on the quality of life of people with HIV/AIDS at the Sehat Peduli Kasih Foundation in Semarang City.

Keywords: Family support; Medication compliance; ODHA; Quality of life

Introduction

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are two types of diseases that are still a global health problem and have not been resolved to date. Human Immunodeficiency Virus (HIV) is a virus that attacks white blood cells and causes a decrease in human immunity. While Acquired Immune Deficiency Syndrome (AIDS) is the final stage of HIV infection, at this stage the body's ability to fight the virus is no longer there (Simboh et al., 2015).

Indonesia is the country with the 14th highest estimate of PLHIV in the world with a total of around 570,000 people, Indonesia is also ranked 9th in terms of estimated new HIV infection cases reaching 28,000 cases

in 2023. There are 11 provinces that contribute the most PLHIV in Indonesia, namely reaching 76% with a total of >10,000 people.

HIV and AIDS are chronic diseases that require proper treatment. Therefore, support and assistance from the family are very necessary so that patients can get a better quality of life. The family support needed includes support in daily activities, information support, financial, treatment and psychological support (Pratiwi & Purwaningsih, 2019).

Family support is one of the most important things for HIV/AIDS sufferers, because the family has a very important role in forming a healthy culture and behavior. Family support is an attitude, action, and acceptance of the family towards a family member who is sick (Sapeni et al., 2023).

Support or attention has benefits for the survival of PLWHA. The family is able to grow a new spirit in PLWHA and PLWHA will have the confidence to live healthily. The support and trust given by the family to PLWHA makes PLWHA feel comfortable and not isolated. PLWHA will have the motivation to live longer because of the spirit and positive role of the family shown to PLWHA such as accompanying PLWHA in undergoing therapy (Khairunniza & Saputra, 2020).

Therefore, family support is very important for HIV/AIDS sufferers because it is expected to motivate PLWHA to have a good quality of life in terms of physical, psychological, social and environmental aspects. And also family support can influence the success of treatment carried out by PLWHA (Mustamu et al., 2019).

In addition to family support, medication adherence also plays a very important role in the survival of PLWHA considering that people infected with the HIV virus must take medication throughout their lives. Adherence to ARV therapy is a key to success in treating HIV infection. Continuous ARV treatment can suppress the amount of virus spread in the blood, improve quality and survival, improve health, and can reduce the risk of transmission. Conversely, non-adherence to treatment is the main cause of therapy failure (Suryanto & Nurjanah, 2021).

Problems experienced by PLWHA often result in a decrease in quality of life. HIV/AIDS is still a disease that cannot be cured, but the virus can be controlled by consuming ARVs every day to suppress the amount of virus in the body of PLWHA. ARVs are given to patients to break the chain of virus activity, restore the immune system and minimize the occurrence of opportunistic infections, and reduce disability due to the disease (Nursalam, 2007).

To support the success of ARV therapy, one of the efforts to supervise patients, health workers and cadres will carry out regular monitoring and evaluation. However, supervision can only be carried out at certain times, namely when patients visit health facilities or when cadres visit the patient's residence. Through compliance in consuming ARVs, the quality of life and life expectancy of patients can be improved (Nurhayati & Hafiz, 2022).

Quality of life is a person's perception of themselves in their environment. A good quality of life for an individual will trigger a positive impact on themselves and those around them. Quality of life in this context refers to how people with HIV and AIDS feel about their physical, psychological, social, and emotional conditions in everyday life. Quality of life can be measured using standardized instruments, such as the WHOQOL-HIV.

The low quality of life of people with HIV is proven by several research studies conducted by Hasanah which state that 76.7% of HIV patients have poor quality of life (Hasanah & Ibrahim, 2019). Another study was also conducted by Prameswari, which proved that 90.0% of HIV patients had poor quality of life, and only 10.0% had good quality of life (Saputra et al., 2023).

In addition to independent variables and dependent variables, there are also confounding variables in this study. Confounding variables are variables that interfere with the influence or relationship between independent variables and dependent variables. (Notoatmodjo, 2010). The confounding variables in this study are age, gender, education, occupation, income, marital status and length of time diagnosed with HIV/AIDS.

Method

This study is a descriptive analytical study using a cross-sectional study design with a quantitative method to determine the effect of family support and the level of drug adherence on the quality of life of people with HIV/AIDS (PLWHA) who receive treatment assistance at the Yayasan Sehat Peduli Kasih Semarang City. The data used in this study are primary data. The target population of this study were all patients who had been diagnosed with HIV and AIDS and received assistance from the Yayasan Sehat Peduli Kasih Semarang City.

The accessible population in this study were all HIV and AIDS patients aged 20-49 years and received ARV therapy. The sample in this study were people with HIV/AIDS (PLWHA) who were under the assistance of the Yayasan Sehat Peduli Kasih Semarang City. The sampling technique in this study used the purposive sampling method which is a sampling technique according to the inclusion and exclusion criteria determined by the researcher. The total sample in this study was 63 people. Data were analyzed univariately,

bivariately (chi square and mann whitney), and multivariately (multiple logistic regression) (Sugiyono, 2019).

Results and Discussion

Univariate Analysis

The results of the analysis of the average age of respondents in this study is 32.11 years with the youngest age of 20 years and the oldest age of 49 years. The results of the interval estimation can be concluded

that 95% believe that the average age of respondents is between 30.31 - 33.91 years as shown in Table 1.

Meanwhile, the frequency distribution based on the length of time diagnosed with HIV from the analysis results obtained the average length of time respondents were diagnosed with the disease since being diagnosed with HIV infection was 22.32 months, with the shortest time being 10 months and the longest being 40 months (Andriani et al., 2014). The interval estimation results can be concluded that 95% are believed that the average respondent was diagnosed with the disease between 20.72 - 23.92 months.

Table 1. Univariate Analysis Results Based on Age and Length of Time Diagnosed with HIV/AIDS at the Yayasan Sehat PeduliKasih, Semarang City

Variables	Mean	Median	SD	Min-Max	95% C
Age	32.11	32.00	7.153	20-49	30.31-33.9
Length of Time Diagnosed with HIV/AIDS	22.32	21.00	6.355	10-40	20.72-23.9

Respondent Characteristics Based on Gender, Education, Marital Status, Income, and Occupation

Table 2. Distribution of Respondents Based on Gender, Education, Marital Status, Income, and Occupation at the Healthy Peduli Kasih Foundation in Semarang City

Variables	Frequency	Percentage %
Gender		
Man	36	57.1
Woman	27	42.9
Total	63	100
Last education		
Tall	25	39.7
Low	38	60.3
Total	63	100
Marital status		
Not married yet	30	47.6
Married (widow/widower)	33	52.4
Total	63	100
Income		
Low	27	42.9
Tall	36	57.1
Total	63	100
Employment Status		
Work	38	60.3
Doesn't work	25	39.7
Total	63	100

The distribution of respondents' gender in this study was mostly male, totaling 36 respondents (57.1%), while females totaled 27 respondents (42.9%) as represented in Table 2. The majority of respondents had low education, totaling 38 respondents (60.3%), while those with high education totaled 25 respondents (39.7%). Based on marital status, the number of

respondents who were married was 33 respondents (52.4%) compared to those who were not married, totaling 30 respondents (47.6%). Most respondents had high incomes, totaling 36 respondents (57.1%), while respondents who had low incomes totaled 27 respondents (42.9%). And, the majority of respondents worked, totaling 38 respondents (60.3%) and those who did not work totaled 25 respondents (39.7%).

Family Support, Medication Compliance, and Quality of Life Quality of Life

Based on Table 3, it shows that the respondents' quality of life is highest in the poor quality of life group, namely 36 respondents (57.1%) and the lowest in the good quality of life group, namely 27 respondents (42.9%).

Table 3. Frequency Distribution of Respondents Based on Quality of Life

Variables	Frequency	Percentage %
Good Quality of Life	27	42.9
Poor Quality of Life	36	57.1
Total	63	100

Compliance with Taking Medication

Based on table 4, it shows that the highest level of medication compliance of respondents was in the high compliance group, namely 32 respondents (50.8%) and the lowest was in the low compliance group, namely 31 respondents (49.2%).

Family Support

Based on Table 5, it shows that the respondents' family support was highest in the low family support group, namely 40 respondents (63.5%) and the lowest in

the high family support group, namely 23 respondents (436.5%).

Table 4. Frequency Distribution of Respondents Based on Medication Compliance

Variables	Frequency	Percentage %
High Compliance	32	50.8
Low Compliance	31	49.2
Total	63	100

Table 5. Frequency Distribution of Respondents Based on Family Support

Variables	Frequency	Percentage %
High Family Support	23	36.5
Low Family Support	40	63.5
Total	63	100

Bivariate Analysis
The Influence Between Family Support and Quality of Life
Based on the table 6 shows that respondents who get high family support and have poor quality of life are 6 (26.1%) respondents. While respondents who get low family support and have poor quality of life are 30 (75.0%) respondents. The results of the *chi square test* obtained *p value* = 0.000, so there is a significant influence between family support and quality of life of people with HIV / AIDS.

The Influence Between Medication Compliance and Quality of Life
Based on the Table 7, it shows that respondents who are compliant in consuming ARV drugs and have a poor quality of life are 8 (25.0%) respondents. While respondents who are not compliant in consuming ARV drugs and have a poor quality of life are 28 (57.1%) respondents. The results of the *chi square test* obtained *a p value* = 0.000, so there is a significant influence between the level of compliance in taking ARV drugs and the quality of life of people with HIV / AIDS.

The Influence of Age and Length of HIV Diagnosis on Quality of Life
In this stage, *Mann Whitney test analysis was carried out* because the results of the normality test showed that the data was not normally distributed. The results of the analysis are in the Table 8.

Table 6. *Chi Square* Test Results on the Influence of Family Support on Quality of Life

Family Support	Quality of Life						POR (95% CI)	*P value*
	Bad		Good		Total			
	n	%	n	%	n	%		
Tall	6	26.1	17	73.9	23	100	8,500 (2,627-27,498)	0.000
Low	30	75.0	10	25.0	40	100		
Total	36	57.1	27	42.9	63	100		

Table 7. *Chi Square* Test Results of the Effect of Medication Compliance on Quality of Life

Compliance in Taking Medication	Quality of Life						POR (95% CI)	*P* value
	Bad		Good		Total			
	n	%	n	%	n	%		
High Compliance	8	25.0	24	75.0	32	100	28,000 (96,670-117,537)	0.000
Low Compliance	28	90.3	3	9.7	31	100		
Total	36	57.1	27	42.9	63	100		

Table 8. The Influence Between Age and Length of HIV Diagnosis with Dependent Variable (Quality of Life)

Variables	Quality of Life	Mean	SD	SE	n	z	P value
Age	Good	32.63	7.576	1.458	27	-0.828	0.407
	Bad	31.72	6.902	1.150	36		
Long time diagnosed	Good	22.15	6.068	1.168	27	-0.265	0.791
	bad	22.44	6.644	1.107	36		

Meaning at α : 0.05

The results of the table analysis show that there is no significant difference in the average age between respondents who have a good quality of life and those who have a bad quality of life. The test results obtained *p value* = 0.407 then, there is no influence of age on quality of life. In the length of HIV diagnosis, the results also showed that there was no difference in the length of HIV diagnosis between those with good quality of life and those with poor quality of life. The test results obtained *p value* = 0.791 then, there is no influence of

length of diagnosis on quality of life. Based on these results, it can be concluded that age and length of diagnosis are not confounding factors of quality of life.

The Influence of Gender, Education Level, Marital Status, Occupation, and Income on Quality of Life

In this stage, a *chi square analysis is carried out* to see which variables from the respondent characteristics are confounding. The results of the analysis of the influence between gender and quality of life obtained female respondents who had poor quality of life as many as 8 people (12.7%). While male respondents who had poor quality of life as many as 28 people (44.4%). Further analysis at alpha 5% there was an influence between gender and quality of life of respondents with a *p value* = 0.000.

Table 9. The Influence Between Gender, Education Level, Marital Status, Occupation, and Income with the Dependent Variable (Quality of Life)

Variables							Quality of Life	P value
		Bad		Good		Total		
	n	%	n	%	n	%		
Gender								0.000
Man	28	44.4	8	12.7	36	100		
Woman	8	12.7	19	30.2	27	100		
Total	36	57.1	27	42.9	63	100		
Education								0.00
Tall	8	32.0	17	68.0	25	100		
Low	28	73.7	10	26.3	38	100		
Total	36	57.1	27	42.9	63	100		
Marital status								0.000
Not married yet	27	90.0	3	10.0	30	100		
Marry	9	27.3	24	72.7	33	100		
Total	36	57.1	27	42.9	63	100		
Employment Status								0.00
Doesn't work	21	33.3	4	6.3	25	100		
Work	15	23.8	23	36.5	38	100		
Total	36	57.1	27	42.9	63	100		
Income								0.00
Low	21	77.8	6	22.2	27	100		
Tall	15	41.7	21	58.3	36	100		
Total	36	57.1	27	42.9	63	100		

The results of the analysis of the influence between the level of education and quality of life obtained respondents with low levels of education and have poor quality of life as many as 28 people (73.7%). While respondents who are highly educated but have poor quality of life as many as 8 people (32.0). Further analysis at alpha 5% there is an influence between the level of education and the quality of life of respondents with a *p value* = 0.001.

The results of the analysis of the influence between marital status and quality of life were obtained by respondents with unmarried status and had poor quality of life as many as 27 people (90.0%). While respondents with married status but had poor quality of life as many as 9 people (27.3%). Further analysis at alpha 5% showed an influence between marital status and quality of life of respondents with a *p value* = 0.000.

The results of the analysis of the influence between employment status and quality of life obtained respondents who were unemployed and had poor quality of life as many as 21 people (33.3%). While respondents who worked but had poor quality of life as many as 15 people (23.8%). Further analysis at alpha 5% there was an influence between employment status and quality of life of respondents with a *p value* = 0.000.

The results of the analysis of the influence between income and quality of life were obtained by respondents with low income and had poor quality of life as many as 21 people (77.8%). While respondents with high income and had poor quality of life as many as 15 people (41.7%). Further analysis at alpha 5% showed an influence between income and quality of life of respondents with a *p value* = 0.004.

Multivariate Analysis

Based on the Table 10 shows the final model description of the multivariate analysis with multiple logistic regression test using the *enter method* where of the 7 variables entered in the analysis only 4 variables were proven to affect the quality of life of people with HIV/ AIDS, namely medication adherence, family support, marriage and education (Hidayati et al., 2018).

The medication adherence variable is the variable that has the most dominant influence on the quality of life of people with HIV / AIDS at the Yayasan Sehat Peduli

Kasih Semarang City with a *p value of* 0.000 and a 95% CI value of 28,000 (6.670 - 117.537).

Table 10. Final Results of Logistic Regression Analysis Test Mode

Variables	B	*Wald*	*P Value*	CI 95%
Medication Compliance	3.332	20.727	0.000	28.000 (6.670-117.537)
Family Support	2.140	12.764	0.000	8.500 (2.627-27.498)
Wedding	2.903	11.339	0.001	0.005 (0.010-0.297)
Education	2.086	8.785	0.003	0.014 (0.001-0.237

Discussion
Age

The respondents in this study were mostly aged >30 years. This age is in accordance with the results of the PIMS executive report conducted by the Ministry of Health in 2022 on HIV/AIDS sufferers. Where the age group most infected with HIV is in the productive age group of 25-49 years (67.9%). Meanwhile, based on a survey from the Semarang City Health Office, the results were not much different, where the number of HIV/AIDS sufferers was highest in the age groups of 20-30 years and 40-49 years (Sitorus et al., 2021).

Transmission is most often found through free sex which generally occurs in age groups with high mobility. Productive age allows PLWHA to still have a strong physique, be able to work well, create and be active independently (Carsita & Kusmiran, 2019). Age is related to a person's mindset and maturity to assess the type of stressor faced, the ability to adapt and the formation of adaptive coping mechanisms so that it can be concluded that age influences a person's behavior in making decisions (Rihaliza et al., 2020).

Based on bivariate analysis using the *chi square test, a p-value of 0.306 (> 0.05)* was obtained , meaning that there is no significant effect between age and the quality of life of people with HIV/AIDS (Putra et al., 2023).

In general, age is related to a person's psychological maturity but is not necessarily related to their quality of life. For PLWHA, quality of life is not affected by age because the diagnosis of HIV/AIDS itself is enough to be a stressor for aspects of their life, so that their quality of life is not only limited to older or younger ages. Each individual will experience a different maturity process obtained from the environment, social, ability to assess types of stressors, ability to adapt and adaptive coping mechanisms (Monasel et al., 2022). According to researchers, quality of life is a subjective concept so that a person's level of quality of life is not limited to their age, both young and old can have a good quality of life depending on how they perceive their respective health conditions.

In the multivariate analysis with logistic regression test of variables, the results showed that age was not

proven to affect the quality of life of people with HIV/AIDS with a *p value* = 0.442 which is greater than 0.05.

Gender

The distribution of the gender of the respondents in this study was mostly male, totaling 36 people (55.6%), while females totaled 27 people (42.9%). This result is in accordance with the largest number of sufferers in Indonesia who are male based on the report (Ministry of Health, 2022). From the data from the Semarang City Health Office report, the same results were also obtained, namely 79.0% of HIV sufferers in Semarang City were male. From these results, it can be seen that men are more susceptible to HIV infection because male mobility is higher than women.

Based on the method of transmission, men are more exposed to HIV infection incidents through three ways, namely: sharing needles (drugs), homosexuality and heterosexuality (free sex). While women are generally exposed only from heterosexuality (free sex) or infected from their husbands. At the level of quality of life, female respondents have a worse quality of life because in dealing with stressors, women use their feelings more than men who use logic so that undergoing treatment for a long time, complications and social pressure can have a significant impact on their psychological status and reduce their quality of life (Kusuma et al., 2011).

Based on bivariate analysis using *chi square test, p-value 0.001 (>0.05)* was obtained , meaning that there is a significant influence between gender and quality of life. The results of this study are in line with the study conducted by Henni Kusuma which stated that there is a significant influence between gender and quality of life of people with HIV/AIDS. However, this study is not in line with the study conducted by Rokhani and Zainudin which stated that gender is not a factor that affects quality of life. In the multivariate analysis using logistic regression test, the results showed that gender was not proven to affect the quality of life of people with HIV/AIDS with a *p value* = 0.995 which is greater than 0.05.

Education

From the results of this study, it is known that the majority of respondents have a low level of education (elementary and junior high school), namely 38 people (60.3%), while those with a high level of education (high school and college) are 25 people (39.7%). Respondents with a higher level of education tend to have a more vigilant attitude towards the disease along with increasing public awareness of HIV/ AIDS. Individuals with higher education tend to have better cognitive abilities to receive and seek information related to the disease and skills education to deal with problems and their care. related to other disease management, self and level with to various facilitating access to information, increasing the patient's ability to solve problems and make active decisions related to their disease. Respondents who may have a better income so that they live in a more stable financial condition. Higher income can make PLWHA feel fulfilled in living their daily lives (Handayani & Fatwa, 2017).

Chi square test, *p-value 0.000 (>0.05)* was obtained, meaning that there is a significant influence between education and quality of life. This study is in line with research conducted by Handayani et al. (2017) that there is a relationship between education and quality of life. However, this study is not in line with research conducted by Tesa and Wiyati which states that education level is not related to quality of life.

In the multivariate analysis with logistic regression test, the results showed that education was proven to influence the quality of life of people with HIV/AIDS with a *p value* = 0.003 which is greater than 0.05.

Marital Status

The distribution of respondents based on marital status in this study shows that there are 33 respondents (52.4%) who are married, more than 30 respondents (47.6%) who are not married.

Chi square test, *p-value 0.000 (>0.05)* was obtained, meaning that there is a significant relationship between marital status and quality of life. In multivariate analysis with logistic regression test, it was found that marital status was proven to affect the quality of life of people with HIV/AIDS with *p value* = 0.001 greater than 0.05. This study is not in line with the study conducted by Gumilang et al. (2022) that marriage does not affect quality of life.

Employment Status

The majority of respondents in this study were employed, amounting to 38 people (60.3%), while those who were unemployed amounted to 25 people (39.7%). Employment is related to economic status where the higher the economic status, the individual's ability to finance their needs also increases. Having a job is the

main source of income for someone, so that not having a job becomes a stressor for PLWHA in living their lives. This may also be related to the individual's dependence on others, level of independence, and other aspects of quality of life.

Chi square test, *p-value 0.000 (>0.05)* was obtained, meaning there is a significant influence between employment status and quality of life. In multivariate analysis with logistic regression test, it was found that employment status was not proven to affect the quality of life of people with HIV/AIDS with *p value* = 0.997 greater than 0.05.

Income

The distribution of respondents' income in this study was mostly in the high income group, totaling 36 people (57.1%), while those with low incomes numbered 27 people (42.9%).

Chi square test, *the p-value* was 0.004 (>0.05), meaning that there is a significant influence between income and quality of life. This study is not in line with the study conducted by Zainudin et al. (2021) which states that income has no relationship with quality of life. In multivariate analysis with logistic regression test, the results showed that income was not proven to affect the quality of life of people with HIV/AIDS with a *p value* = 0.013 greater than 0.05.

Time to Diagnose

The respondents in this study were mostly diagnosed with the disease for >1 year, as many as 41 people (65.1%), while <1 year were 22 people (34.9%). Based on bivariate analysis using the *chi square test, a p-value of 0.000 (>0.05)* was obtained , meaning that there was a significant influence between the length of diagnosis and quality of life. These results prove that the longer the respondent suffers from the disease, the worse their quality of life. These results are in accordance with the results of research conducted by Henni Kusuma where the length of time suffering from the disease is a significant factor and can affect the quality of life. Based on the theory, it can be seen from the course of the disease where the longer the patient suffers from the disease, the lower their health level will be. This is related to the decrease in the number of CD4 cells in the patient's body. Therefore, patients are required to take ARV drugs for life in order to maintain the stability of their disease. In addition, the effects of taking drugs can also affect the quality of life of respondents.

In the multivariate analysis using logistic regression test, the results showed that the length of time diagnosed was not proven to affect the quality of life of

people with HIV/AIDS with a *p value* = 0.509 which is greater than 0.05.

The Influence Between Family Support and Quality of Life

The majority of respondents in this study had low family support of 40 people (63.5%) while high family support was 23 people (36.5). Based on bivariate analysis using the *chi square test, a p-value of 0.000 (> 0.05)* was obtained , meaning that there is a significant influence between family support and the quality of life of PLWHA. Family is someone who is closest to the patient so that family support is needed as a support system that can support them in developing effective responses in dealing with stressors both physically, psychologically and socially. With sufficient family support, it will have a positive impact on improving the quality of life of HIV/AIDS patients (Kolbi, 2022).

This study is in line with the study conducted by Ausy which found that there is a relationship between the level of family support and the quality of life of PLWHA (Purnamawati, 2024). This result is also in line with Wig's study which showed a significant relationship between family support and the quality of life of PLWHA after being controlled by the level of education, income, occupation and clinical category of the disease. PLWHA with high family support tend to have a better quality of life because they feel that they are more supported and consider their family as the main source of support. The absence of pressure will make PLWHA feel safe and tend to comply with treatment. With comprehensive family support, it is hoped that PLWHA can be motivated and more patient in accepting their condition (Ramadani et al., 2020). The role of the family can help PLWHA and other family members to accept the conditions they face. Families living with HIV will face many challenges so that with sufficient support, these challenges can be overcome together.

In the multivariate analysis with logistic regression test, the results showed that family support was proven to influence the quality of life of people with HIV/AIDS with a *p value* = 0.000 which is greater than 0.05.

The Influence Between Medication Compliance and Quality of Life

The majority of respondents in this study showed a high level of compliance, namely 32 people (50.8%) and a low level of compliance, amounting to 31 people (49.2%) poor. Based on bivariate analysis using the *chi square test, a p-value of 0.000 (> 0.05)* was obtained, meaning that there is a significant influence between medication adherence and the quality of life of PLWHA. This study is in line with research conducted by Rihaliza and Nurhayati which states that there is a relationship between medication adherence and quality of life.

Compliance in taking ARV is the most important factor in suppressing the number of HIV viruses in the human body. Long and stable suppression of the number of viruses aims to maintain the body's immune system. Thus, people infected with the HIV virus will get a good quality of life and also prevent illness. Compliance is a form of behavior where human behavior comes from the drive that exists within humans, while drive is an effort to meet the needs that exist within humans. Compliance is taking medication according to the dose, never forgetting, on time, and never stopping. One thing that needs to be understood in increasing the level of compliance is that patients need support, not blame (Nida, 2019).

In the multivariate analysis with logistic regression test, it was found that medication adherence was proven to affect the quality of life of people with HIV/AIDS with a *p value* = 0.000 greater than 0.05. Further analysis showed that the medication adherence variable was the most dominant influence on the quality of life of people with HIV/AIDS with a 95% CI value of 28,000 (6.670–117.537).

Conclusion

From the results of this study it is known that medication adherence is the most dominant influence on the quality of life of people with HIV/AIDS at the Yayasan Sehat Peduli Kasih Semarang City. Adherence in taking ARVs is the most important factor in suppressing the number of HIV viruses in the human body. Long-term and stable suppression of the number of viruses aims to maintain the body's immune system. Thus, people infected with the HIV virus will get a good quality of life and also prevent illness. Family support, marital status and education level have been shown to influence the quality of life of people with HIV/AIDS at the Yayasan Sehat PeduliKasih, Semarang City. PLWHA with high family support tend to have a better quality of life because they feel that they are more supported and consider their family as the main source of support. The absence of pressure will make PLWHA feel safe and tend to comply with treatment. With comprehensive family support, it is hoped that PLWHA can be motivated and more patient in accepting their condition.

Author Contributions

This article was written by three authors, namely P., G. W and M. S. A. Both authors worked together to carry out each stage of this research.

References

Andriani, A., Rika, R., & Sandhita, S. (2014). Hubungan Kepatuhan Mengkonsumsi Anti Retroviral Virus (Arv) dengan Kenaikan Jumlah Cd4 Odha di Lancang Kuning Support Group Pekanbaru. *Scientia Journal*, *3*(2), 150–159. Retrieved from https://www.neliti.com/publications/286523/hubungan-kepatuhan-mengkonsumsi-anti-retroviral-virus-arv-dengan-kenaikan-jumlah

Carsita, W. N., & Kusmiran, M. A. (2019). Kualitas Hidup ODHA Di Kecamatan Bongas. *Jurnal Keperawatan Profesional*, *7*(2), 96–109. https://doi.org/10.33650/jkp.v7i2.603

Gumilang, R. R., Indriati, D. W., Diyantoro, D., & Sundari, A. S. (2022). The Occurrence of Tuberculosis Infection among Newly HIV Diagnosed Patient in Indonesia. *Open Access Macedonian Journal of Medical Sciences*, *10*(A), 893–896. https://doi.org/10.3889/oamjms.2022.9529

Handayani, F., & Fatwa, S. T. D. (2017). Faktor yang mempengaruhi kualitas hidup orang dengan HIV/AIDS di Kota Kupang. *Berita Kedokteran Masyarakat*, *33*(11), 509–514. Retrieved from https://core.ac.uk/download/pdf/295356016.pdf

Hasanah, U., & Ibrahim, K. (2019). Effects of spiritual counseling on spiritual health-quality of life in patients with HIV/AIDS. *Dspace*. Retrieved from https://repository.unar.ac.id/jspui/handle/123456789/704

Hidayati, N. R., Setyaningsih, I., & Pandanwangi, S. (2018). The level of adherence of HIV/AIDS patients to the use of anti-retroviral drugs (ARV) at Gunung Jati Hospital, Cirebon. *Scientific Journal of Pharmacy*, *14*(2), 58–66. Retrieved from https://shorturl.asia/Nrg3A

Khairunniza, K., & Saputra, N. (2020). Faktor-faktor yang Mempengaruhi Kualitas Hidup ODHA Terpapar Program OBRASS di Yayasan Pelita Ilmu Tahun 2020. *Jurnal Ilmu Kesehatan Masyarakat*, *9*(03), 172–177. https://doi.org/10.33221/jikm.v9i03.626

Kolbi, V. E. L. (2022). Literature Review: Faktor-Faktor Yang Mempengaruhi Kualitas Hidup Orang Dengan Hiv/Aids (ODHA) Literature Review: Factors That Affect The Quality Of Life People Living With Hiv/Aids. *Universitas Airlangga*. Retrieved from https://e-journal.unair.ac.id/MGK/article/download/33884/22991

Kusuma, H., Nurachmah, E., & Gayatri, D. (2011). Hubungan antara depresi dan dukungan keluarga dengan kualitas hidup pasien HIV/AIDS yang menjalani perawatan di RSUPN Cipto Mangunkusumo Jakarta. *Universitas Indonesia*, *20*(21), 76–79. Retrieved from https://lib.ui.ac.id/detail?id=20282772

Monasel, A. H., Susanto, H. S., Yuliawati, S., & Sutiningsih, D. (2022). Faktor-Faktor yang Berhubungan dengan Kualitas Hidup Orang dengan HIV/AIDS (ODHA) di Yayasan Sehat Peduli Kasih, Kota Semarang. *Jurnal Epidemiologi Kesehatan Komunitas*, *7*(1), 444–457. https://doi.org/10.14710/jekk.v7i1.9904

Mustamu, A. C., Nurdin, M., & Pratiwi, I. G. (2019). Hubungan antara dukungan keluarga dengan kualitas hidup pada orang dengan HIV dan AIDS. *Jurnal Kesehatan Prima*, *13*(1), 76–84. https://doi.org/10.32807/jkp.v13i1.211

Nida, F. K. (2019). *Hubungan Kepatuhan Minum Antiretroviral Dengan Kualitas Hidup Odha Di Lsm Victory Plus Yogyakarta*. Universitas Gadjah Mada. Retrieved from https://etd.repository.ugm.ac.id/penelitian/detail/177342

Notoatmodjo, S. (2010). *Ilmu perilaku kesehatan*. Jakarta: Rineka Cipta.

Nurhayati, N., & Hafiz, M. (2022). Hubungan Antara Kepatuhan Minum Obat ARV Terhadap Kualitas Hidup Pasien HIV/AIDS. *Malahayati Nursing Journal*, *4*(5), 1204–1209. https://doi.org/10.33024/mnj.v4i5.6336

Nursalam, K. D. (2007). *N, Asuhan Keperawatan Pada Pasien Terinfeksi HIV AIDS*. Jakarta: Salemba Medika.

Pratiwi, I. N., & Purwaningsih, S. R. (2019). The correlation between family support and quality of life in mothers with positive HIV in Surabaya. *Indian Journal of Public Health Research & Development*, *10*(8). Retrieved from https://shorturl.asia/lHOky

Purnamawati, D. (2024). Family Support For People With HIV and AIDS (PLWHA). *Muhammadiyah International Public Health and Medicine Proceeding*, *4*(1), 133–137. https://doi.org/10.61811/miphmp.v4i1.655

Putra, A. S., Saepuddin, S., & Hanifah, S. (2023). Tingkat Pemahaman dan Faktor Kepatuhan Minum Obat Arv Pada PasienHIV/AIDS. *Parapemikir: Jurnal Ilmiah Farmasi*, *12*(3), 290–298. https://doi.org/10.30591/pjif.v12i3.5298

Ramadani, S. P., Hastuti, M. F., & Yulanda, N. A. (2020).

Kebutuhan spiritual dengan kualitas hidup pasien hiv/aids: literature review. *ProNers*, *5*(2). https://doi.org/10.26751/ijb.v7i2.2397

Rihaliza, R., Murni, A. W., & Alfitri, A. (2020). Hubungan kepatuhan minum obat dan jumlah CD4 terhadap kualitas hidup orang dengan HIV AIDS di Poliklinik Voluntary Counseling and Testing RSUP Dr M Djamil Padang. *Jurnal Kesehatan Andalas*, *8*(4). Retrieved from https://shorturl.asia/Xb748

Sapeni, M. A. A. R. S., Paat, T. C. C., Iswari, Y., & Juwita, H. (2023). ukungan Keluarga Terhadap Kualitas Hidup Odha: Literature Review. *Jurnal Mitra Kesehatan*, *5*(2), 158–168. https://doi.org/10.47522/jmk.v5i2.190

Saputra, M. H., Mochartini, T., Pertiwi, I., Rusli, A., & Murtiani, F. (2023). Pengaruh Infeksi Oportunistik, Kepatuhan ARV dan Dukungan Keluarga Terhadap Kualitas Hidup ODHA. *The Indonesian Journal of Infectious Diseases*, *9*(1), 13–22. Retrieved from http://www.ijid-rspisuliantisaroso.co.id/index.php/ijid/article/view/173

Simboh, F. K., Bidjuni, H., & Lolong, J. (2015). Hubungan Dukungan Keluarga Bagi Kualitas Hidup Orang Dengan Hiv/Aids (Odha) Di Klinik Vct Rsu Bethesda Gmim Tomohon. *Jurnal Keperawatan*, *3*(2). https://doi.org/10.35790/jkp.v3i2.8080

Sitorus, R. J., Novrikasari, N., Syakurah, R. A., & Natalia, M. (2021). Efek samping terapi antiretroviral dan kepatuhan berobat penderita HIV/AIDS. *Jurnal Kesehatan*, *12*(3), 389–395. https://doi.org/10.26630/jk.v12i3.2869

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: PT Alfabeta.

Suryanto, Y., & Nurjanah, U. (2021). Kepatuhan Minum Obat Anti Retro Viral (ARV) Pada Pasien HIV/AIDS. *Jurnal Ilmu Keperawatan Indonesia (JIKPI)*, *2*(1), 14–22. https://doi.org/10.57084/jikpi.v2i1.635

Zainudin, M. Z., Zaini, Z., & Kamarudin, M. F. (2021). The Influence of Perceived Values and Culture on the Well-Being of Malaysians. *Journal of Human Capital Development (JHCD)*, *14*(2), 29–40. Retrieved from https://jhcd.utem.edu.my/jhcd/article/view/6211