Social Support to Increase Adherence of People Living with HIV in Antiretroviral Treatment (Literature Review)

Yudhi Atmajaya¹, Betta Kurniawan²*, Sudjarwo³

¹Student of Master of Public Health, Faculty of Medicine, University of Lampung, Indonesia
²Lecturer Department of Microbiology and Parasitology, Faculty of Medicine, University of Lampung, Indonesia
³Lecturer Philosophy of Science, Master of Public Health, Faculty of Medicine, University of Lampung, Indonesia

ABSTRACT: Antiretroviral medication (ART) therapy is the primary method of managing HIV-positive patients. The primary factor leading to therapeutic failure is nonadherence to ART therapy. Personal traits (predisposition), availability to health information, and social support, can be linked to adherence throughout ART therapy. Through a review of the literature, we hope to learn more about how social support can improve People Living With HIV (PLHIV) patients' compliance with ART treatment. The literature review method is employed in this research strategy. The search for articles turned up 14 articles from 2019 to 2023 that were relevant to the issue. Various sources can be used to provide social assistance. Social support from friends, family, and medical professionals has a significant impact on PLHIV compliance with taking ART. Peer Support Groups (KDS) play a function in preserving adherence to ART treatment in PLHIV in addition to family support. Peer support groups offer assistance in the form of knowledge about sickness and treatment as well as inspiration to continue taking antiretrovirals religiously in order to survive. Numerous journals demonstrate a link between different types of social support and medication adherence. There is something, nevertheless, that is inversely related to the study. Social support will, nevertheless, have a favorable effect on treatment adherence. It is impossible to increase social support from a single source. However, if it can work in concert with social support, it will be ideal. To get the best outcomes, namely treatment adherence to antiretroviral therapy, it is vital to develop positive relationships amongst sources of support. Medication adherence is also influenced by internal variables, such as knowledge and the desire to preserve health, in addition to external support factors.

KEYWORDS: Adherence, Antiretroviral Therapy, Social Support.

INTRODUCTION

Since the Human Immunodeficiency Virus (HIV) was first detected, it has been isolated for a decade, killing millions of people throughout the world. The United States through the United Nations (UN) in 2001 convened its first special session on HIV to set a common agenda driving global efforts to reverse the course of the pandemic. Although major progress may have only been made in the last 20 years, the sheer scale of the AIDS pandemic remains. 2021 World Leaders at UN High Level Summit pledge transformative action in urgent effort to end the global AIDS epidemic by 2030 (UNAIDS, 2021).

PLWHA and PLHIV refer to two distinct entities. People with HIV (PLHIV) are defined as those who have CD4 cells with more than 250 copies of the HIV gene. People with HIV and AIDS (PLWHA) are HIV-positive individuals who also have AIDS and are in need of medical care. Since HIV is not the same as AIDS and no one with HIV may develop AIDS if they do not stop taking their medicine, the term PLHIV is seen as being friendlier to those who are affected. This term is also consistent with the worldwide framework, where PLHIV (people living with HIV) is frequently used. (Ashila et al., 2020)

There were 1.5 million new HIV infections and 37.7 million PLHIV worldwide in 2020. Of these, 680,000 had HIV/AIDS and perished.(UNAIDS, 2021). The total number of AIDS cases documented up through December 2021 was 456,453. Of these, there are 387,210 HIV-positive individuals who are still living and receiving antiretroviral therapy (ART). 49,391 HIV-positive individuals who passed away after beginning ART therapy, and 71,995 individuals with AIDS who stopped taking their medicine or were lost to follow-up (LFU). (Kemenkes RI, 2021). In the year 2022, there are approximately 5,076 ODHIV cases, approximately 3,561 ART-treated patients, and approximately 490 LFU cases in the province of Lampung. (Dinas Kesehatan Provinsi Lampung, 2023). In 2022, there were 1,243 persons in Bandar Lampung who were receiving ART and 2,624 people living...
with HIV. There were 255 individuals out of the 436 LFU. (Dinas Kesehatan Kota Bandar Lampung, 2023). A high LFU rate indicates a high non-adherence of PLHIV to antiretroviral medication, according to the aforementioned data.

The primary treatment for HIV patients is the provision of ART therapy. The primary factor leading to therapeutic failure is non-adherence to ART therapy. In order to sustain long-term therapeutic success and prevent drug resistance, compliance must be at least 95%. (Lantche et al., 2021). In order for the medication to operate effectively against the virus, ART therapy compliance can be achieved by utilizing the proper medication and dosage, in the proper manner, at the proper time. (Sebayang, 2020).

The use of medication to treat HIV infection is known as ART therapy. The virus is not killed by ART therapy, but it can delay the virus’ development, which in turn slows the progression of HIV illness. These drugs are frequently referred to as antiretroviral drug therapy (ART) because HIV is a retrovirus. Maximum and long-lasting viral load suppression, immunologic function repair or preservation, a better quality of life, and a decrease in HIV morbidity and death are the key objectives of ART therapy. (Andriani, 2016).

Several variables, including personal ones (predisposition), access to health information, and social support, can be linked to adherence throughout ART therapy. Individual determinants include work situation, educational level, ethnicity, treatment expertise, history of switching ART, as well as ART side effects. Health insurance, compliance counseling, access to health services, and encounters with stigma all fall under the category of access to health information. Peer groups and family support are two sources of social support. (Adiningsih et al., 2018).

Because of the encouragement from families who are willing to accept the state of the sickness they are suffering and support the success of the treatment, family support has a significant impact on medication adherence. Additionally, supplying adequate information, demonstrating drive and self-assurance, and realizing the significance of consistent ART use. Additionally, the Peer Support Group (KDS) offers encouragement to persevere by obediently taking antiretrovirals together with support in the form of knowledge about sickness and treatment. (Jusriana et al., 2020).

In light of the aforementioned context, the authors’ interest in writing on PLHIV adherence in ART therapy is significant to note. This time, I’ll talk about how social support can improve PLHIV adherence to antiretroviral therapy (ART).

In order to be used as a resource during services, particularly counseling provided by health professionals for PLHIV and their families, this literature review intends to learn about social support to promote PLHIV adherence to antiretroviral treatment (ART).

METHOD

This study was conducted using the literature review methodology, which involves selecting and assessing material from a variety of authoritative sources that can be utilized to draw conclusions. A predetermined set of inclusion and exclusion criteria were used to conduct an analysis on the journal search results in order to provide answers to clinical issues that might be answered by the PICO approach, which was created and evaluated by researchers JBI Critical Appraisal Checklist for Randomized control trial.

The search was carried out by determining the research problem compiled with PICO. After that, a literature search was carried out using the keywords Boolean logic that had been determined and MESH on the existing data base on Google Scholar and PubMed, using the keywords and Boolean logic that had been defined, namely: P: people with HIV/AIDS; I: Social Support; C: Adherence; O: Antiretroviral Therapy. Extraction from the search results was done using preset inclusion and exclusion criteria. The appropriate journal is located using the criteria already in place, and then exported to Mendeley for online bibliography management.
RESULT
The article search results yielded 14 articles from the time period 2019 to 2023 that matched the topic.

Table 1. Results of the Review Article: The Role of Social Support in Improving Antiretroviral Treatment Adherence

<table>
<thead>
<tr>
<th>No</th>
<th>Researcher and Year</th>
<th>Title</th>
<th>Method, Population, dan Sample</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Devi, 2023</td>
<td>Relationship of Knowledge and Family Support to Compliance Antiretroviral Treatment (ARV) for HIV/AIDS Patients at dr. Pirngadi Medan</td>
<td>The strategy utilized is a cross-sectional quantitative method. 743 patients with HIV and AIDS who received ARV treatment at RSUD Dr. Pirngadi Medan from January to July 2018 comprised the study's population. 90 persons made up the entire sample.</td>
<td>There were 8 (42.1%) who adhered to antiretroviral medication and 11 (57.9%) who did not, out of the 19 HIV/AIDS patients whose families did not support them. While this was going on, 64 (90.1%) of the 71 HIV/AIDS patients with supportive families were adhering to their antiretroviral therapy, compared to 7 (9.9%) who were not. The statistical analysis produced a p value of 0.001 indicating a substantial correlation between family support and HIV/AIDS patients' adherence to antiretroviral therapy. The 10.571 odds ratio indicates that respondents with unsupportive families were 10.571 times more likely than respondents with supportive families to not be adhering to antiretroviral therapy.</td>
</tr>
<tr>
<td>2</td>
<td>Gobel et al., 2023</td>
<td>Factors affecting patients' compliance with antiretroviral use in Makassar City</td>
<td>The research methodology used is cross sectional observational research. The sample and population were PLWHA who visited hospitals and were supervised by HIV/AIDS NGOs. Using a total of 80 PLWHA, the sample was purposefully collected according to a set of criteria.</td>
<td>The results showed that out of 80 PLHIV, 51 PLHIV (63.8%) adhered to taking ARVs with a pValue of 0.000 ≤ α 0.005, meaning that social support was related to adherence to ARV therapy, while knowledge was not related to adherence to ARV therapy, pValue 0.598 &gt; α 0.05, however If we look at the proportion of 58 PLWHA with sufficient knowledge, 37 PLWHA (46.3%) adhere to ARV therapy.</td>
</tr>
<tr>
<td>3</td>
<td>Djumadi &amp; Gobel, 2023</td>
<td>Factors Influencing ARV Adherence in HIV/AIDS Sufferers at Bhayangkara Hospital in Makassar City in 2022</td>
<td>This research approach combines cross sectional study methodology with observational research. The study's population consisted of all 80 patients who were HIV/AIDS patients receiving ARV medication at the hospital.</td>
<td>The findings revealed a correlation between ARV therapy adherence in HIV/AIDS patients at Bhayangkara Hospital in Makassar City in 2022 and knowledge of ARV therapy (r=0.624), drug side effects (r=0.018), health insurance (r=0.001), access to health services (r=0.340), family support (r=0.000), and peer support (r=0.051).</td>
</tr>
<tr>
<td>Volume</td>
<td>Issue</td>
<td>Date</td>
<td>Title</td>
<td>Author(s)</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>------</td>
<td>-------</td>
<td>-----------</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>Oct 23</td>
<td>Bhayangkara Hospital in Makassar City. Chi-Square is the statistical test employed in this investigation. According to the results of multivariate analysis, family support was the factor most strongly related with HIV/AIDS patients' adherence to ARV therapy, with an OR of 124.533 (95% CI: 9.504-1631.745) and a value of 0.000.</td>
<td>Mahdalena &amp; Maharani, 2022</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>More than 59.5% of patients were obedient and received help from their family; as many as 59.5% of patients received support from their relatives in adherence to therapy. In the PLWHA at the VCT Clinic at Santa Elisabeth Hospital, block II Lubuk Baja, this study demonstrates that there is a relationship between family support and adherence to ARV treatment (p = 0.000).</td>
<td>Suntara et al., 2022</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>The findings show a correlation between knowledge and medication adherence for anti-retroviral (ARV) therapy (P value 0.023 0.05), a correlation between self-efficacy and medication adherence for anti-retroviral (ARV) therapy (P value 0.024 0.05), and a correlation between family support and medication adherence (P value 0.007 0.05).</td>
<td>Nurjanah &amp; Suryanto, 2021</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td>Peer support groups and adherence to taking ARV medicine in HIV/AIDS patients are related, according to the results of the Chi-square statistical test</td>
<td>Ayuba et al., 2021</td>
</tr>
</tbody>
</table>
in HIV/AIDS patients in Prof. Dr. H. Aloe Saboe Hospital, Gorontalo strategy. Patients with HIV/AIDS who had registered at the Prof. Dr. H. Hospital’s VCT Clinic made up the study’s population. Aloe Saboe, with a total of 100 PLHIV and samples from 50 individuals with a 95% confidence level showing that the p value = 0.009 = 0.05. 39 responders (78%) rated the research findings as good, with high adherence to ARV therapy.

8 Oliveira et al., 2020 Association between social support and adherence to anti-retroviral treatment in people living with HIV Cross-sectional research is used in this study. A total of 168 PLHA patients receiving follow-up outpatient care at a university hospital in the Brazilian state of Rio Grande do Sul made up the study population. The average score for instrumental social support is greater (3.73 points), but the Cronbach’s alpha coefficient for emotional social support was higher. The following were the primary sources of social support: For 44.6% (n = 75), their spouse, partner, boyfriend, or girlfriend. 41.1% of respondents and their family members (n = 69) reside in the same home. Social support components can be divided into instrumental and emotional support. We discovered the following resources for emotional support: Friends, 8.9% (n = 15), neighbors, 2.4% (n = 4), and 43.5% (n = 73) of the respondents do not reside in the same home as their relatives, and medical specialists, for 3% (n = 5). The sources of instrumental support, however, are as follows: Immediately after: family members who do not reside in the same home with 48.2% (n=10).

9 Jusriana et al., 2020 Factors Associated with Therapy Adherence Antiretrovirals in People with HIV at the Makassar City Peer Support Group Care Foundation Cross-sectional study design is a quantitative research technique. All couples using ARVs at the Peer Support Group Care Foundation (YPKDS) in Makassar City who had both contracted HIV were included in this study; there were 50 responses overall, but only 43 were willing to complete the questionnaire online. According to the study’s findings, p=0.031 (0.05) indicates a connection between knowledge level and adherence to ARV therapy. Family support and ARV therapy adherence are related, with a p=0.024 (0.05) correlation. Peer group support and ARV therapy adherence are related, with a p=0.03 (0.05) correlation. There is a correlation between pharmacological side effects and ARV therapy adherence, with a p-value of 0.003 (0.05).

10 (Yuni et al., 2020) Analysis of Factors Associated with Compliance PLHA in This study used a design mix-method with a cross-sectional quantitative The correlation between social support and PLWHA compliance in taking ARVs reveals that the percentage of PLHIV with
<table>
<thead>
<tr>
<th>No.</th>
<th>Author(s)</th>
<th>Title</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Putri &amp; Budiman, 2019</td>
<td>Hubungan Dukungan Sosial Dengan Kepatuhan Pengobatan Antiretroviral (ARV) Pada Penderita HIV/AIDS</td>
<td>Quantitative study using a correlative research approach. There were a total of 495 PLHIV in Ciamis City, and 65 replies were included in the sample.</td>
<td>According to the findings of the correlation test calculations, a significance value of 0.000 is obtained, where the value is less than 0.05 (0.000 0.05), which means that H_0 is rejected and that there is a significant relationship between the social support variable and the treatment compliance variable.</td>
</tr>
<tr>
<td>12</td>
<td>Talumewo et al., 2019</td>
<td>Factors Associated with Compliance with PLHIV in Undergoing Antiretroviral Therapy at the Tikala Baru Community Health Center, Manado City in 2019</td>
<td>Quantitative study using a correlative research approach. There were a total of 495 PLHIV in Ciamis City, and 65 replies were included in the sample. Cross-sectional study approach combined with analytical survey research methodology 64 respondents served as samples in this study utilizing the accidental sampling approach.</td>
<td>There was no correlation between social support and PLWHA's compliance with receiving ARV therapy at the Tikala Baru Community Health Center, according to the statistical analysis of the chi square test results, which revealed that p value &gt;. In order to stay on medicine, the social support mentioned here includes peer and family support for undergoing ARV therapy. Because they were still concealing their HIV status and were not yet open to others, the majority of the respondents in this study's sample did not receive assistance from their family or peers. The most common justifications given by respondents to researchers were fear of discrimination, being shunned, and suffering unfavorable stigma.</td>
</tr>
</tbody>
</table>
**13. Adherence to antiretroviral therapy and the associated factors among people living with HIV/AIDS in Northern Peru: a cross-sectional study**

Moral et al., 2019

Methods 180 HIV/AIDS-positive adults were included in this cross-sectional study; they were chosen consecutively rather than at random, and 78.2% of the sample met the eligibility requirements.

The findings revealed that the majority of participants (79.4%; 143) disclosed their HIV diagnosis to family members, primarily because they needed emotional support for managing therapy (64.3%; 92). The primary reasons for not disclosing their HIV status to their family (19.4%; 35) included fear of rejection, self-consciousness, and lack of confidence (32.4%; 12), as well as a desire to avoid more difficulties (32.4%; 12).

**14. Factors Related to Compliance of ARV Medication in HIV Patients at RSCM Jakarta**

(Debby et al., 2019)

This study employs quantitative techniques and a cross-sectional, correlational, and descriptive research design. From the whole patient population over the previous two years, which included 496 new instances, 198 patients were selected as the study's sample.

According to the analysis's findings, there was no correlation between medication adherence and age (p value 0.327), education (p value 0.859), or therapy regimen (p value 0.74), but there was a relationship between medication adherence and gender (p value 0.040), medication knowledge (p value 0.010), family support (p value 0.034), and health insurance (p value 0.03).

**DISCUSSION**

The community and government have a strong commitment to combating HIV AIDS, with the goal of eradicating PIMS (HIV AIDS and Sexually Transmitted Infectious Diseases) by 2030. Increasing access and the caliber of health services in the goal of universal health care is one of the policy and strategic directions. 2020–2024: National Medium Term Development (RPJMN), increasing disease prevention, including PIMS and HIV AIDS included in the policy's direction. The government and the community support efforts to end HIV/AIDS. It has been determined at the global level that by 2030, we can achieve 95-95-95 for treatment, meaning that 95% of PLHIV are aware of their status, 95% of PLHIV who are aware of their status are receiving treatment, and 95% of PLHIV who have received treatment are still PLHIV. (Kemenkes RI, 2020).

ART therapy has advanced at an unheard-of rate over the past ten years. There were 26 million patients undergoing ART therapy worldwide at the end of June 2020. HIV medication resistance could affect how well HAART therapy works to lower HIV incidence and HIV-related morbidity and mortality. (WHO, 2021). Adherence to taking ART medicine is a key factor in how well HIV/AIDS is treated with ART therapy. If treatment compliance increases to more than 95%, ART therapy is deemed to be the best course of action.

Health professionals must assist patients in adhering to medication use, incorporating family members or elderly patients as needed. ART medications must be taken for life with a high level of adherence (> 95%). Many factors, including distance, cost, staff attitudes, operating procedures, and side effects, might affect a patient's compliance in taking their medication. Therefore, it's important to investigate the reasons for non-compliance and provide solutions to increase compliance, such as counseling and ongoing encouragement. Adherence to ART is not usually determined by the absence of nonadherence to other medications, such as cotrimoxazole. (Purnamawati, 2016).
Psychological assistance can improve one's outlook on life, lessen stress and despair, and promote treatment compliance. Social support will alleviate living requirements, lessen environmental prejudice, and increase access to healthcare. (Purnamawati, 2016). It can be utilized as a foundation and support for PLHIV with support, including psychological help and social support. Various sources can be used to provide social assistance. Social support can come from friends, family, and medical professionals. The degree to which PLHIV adhere to taking ART is significantly influenced by this support. Family considerations are typically the main source of support for PLHIV whose status is known by their families and whose families can accept their condition. The individuals closest to you are typically those that remind you to take your medication, such as your parents, spouse, and kids. In this situation, the family might serve as a PLHIV medication monitor (PMO). (Yuniar et al., 2022). The patient will adhere to the ART therapy regimen more closely the more support they have from their family. (Sari et al., 2019).

Based on findings from research (Nurjanah & Suryanto, 2021), When receiving ART treatment, 71.8% of PLHIV without family support will fail to take their medication more than three times, compared to only 43.4% of PLHIV with family support. According to the statistical test results, there is a substantial link between HIV patients’ family support and their adherence to taking their ART medicine. According to the analysis's findings, PLHIV with weak family support had a 3.317-times higher risk of failing to take their ART medicine than PLHIV with strong family support.

This fits with the research (Debby et al., 2019), revealed that respondents with high family support had compliance rates of 53.7%, whereas respondents with low adherence to taking ART were among those with poor family support rates of 31.3%. According to the test results, adherence to taking ART medicine by HIV patients at the HIV Integrated Service Unit at RSUPN DR Cipto Mangunkusumo was significantly correlated with the respondent's family's support.

However, adherence to antiretroviral therapy in HIV patients is not always improved by family support. According Mahdalena & Maharami, 2022, It is well recognized that family support has little impact on a patient's adherence to an HIV/AIDS treatment regimen. Because a variety of factors, including incentive to participate in HIV/AIDS treatment programs and drive to maintain good health, affect medication adherence in addition to family support. (Juhaefah et al., 2020). Added by Yuni et al., 2020 revealed there is no statistically significant correlation between PLHIV compliance in taking ARVs and social support for PLHIV. Rejection of PLHIV is brought on by a lack of HIV/AIDS education in the family.

According to 2019 research done in Brazil, the average score for overall social support was 3.53 points, or around 70% of the maximum score. Then it was determined that social support influenced adherence to ART therapy in a favorable way. This occurs particularly when the patient's family is the primary source of support. (Oliveiraa et al., 2020).

Peer Support Groups (KDS) play a function in preserving adherence to ART treatment in PLHIV in addition to family support. The study's findings indicated a connection between ART therapy adherence levels and peer support. Peer support groups offer encouragement to stick with receiving ART treatments as well as knowledge about the condition and its treatment. (Jusriana et al., 2020).

According to this research, (Anok et al., 2018) It can be concluded that there is a relationship between the role of KDS and PLHIV's compliance in consuming ART at the VCT clinic at Ambarawa Regional Hospital based on the discussion of the p value of 0.003 for the role of KDS with PLHIV’s compliance in consuming ART at the clinic. KDS has a positive impact in the VCT Clinic at Ambarawa Hospital. KDS offers information about the HIV/AIDS disease you have, the best time to start taking ART drugs, how to use the drugs, dose, advantages, and drawbacks of not taking the drugs. The KDS also keeps track of medicine dosage, frequency, and timing.

There is a link between peer support groups and adherence to taking ART medication in people with HIV/AIDS, according to research done at the VCT Clinic of Prof. Dr. H Aloe Saboe Regional Hospital, Gorontalo City. The results of the Chi-square statistical test with a 95% confidence level showed that the p value = 0.009 = 0.05. According to the findings of the study carried out in the VCT room, the peer support group was rated as good by 39 respondents (78%), who had a high level of adherence to taking their ART medicine. The peer support group’s value is good with high compliance to the questionnaire's question items. Specifically, the peer support group accompanies, looks for the absence of necessary treatment facilities and equipment, participates actively in carrying out treatment and care, and issues warnings about actions that could make the disease worse HIV/AIDS. (Ayuba et al., n.d., 2021).
CONCLUSIONS

If treatment compliance exceeds 95%, ART therapy is considered to be the best course of treatment. The adherence of PLHIV to receiving ART therapy is significantly influenced by the social support from family, friends, and medical professionals. The support of the respondent’s family and adherence to taking ART medicine in HIV patients are significantly correlated. This implies that the patient sticks to the ART therapy regimen more closely the more support they receive from their family. HIV patients who receive inadequate family support are 3.317 times more likely to stop taking their ART treatment than PLHIV who receive adequate family support.

Peer Support Groups (KDS) play a function in preserving adherence to ART treatment in PLHIV in addition to family support. The peer support group offers encouragement to live by obediently taking antiretroviral medication, assisting in locating the necessary treatment facilities and equipment, participating actively in treatment and care, and reminding people of behaviors that can make things worse. It also offers support in the form of information about treatment and the disease.

It is impossible to increase social support from a single source. However, if social support could work in concert, it would be ideal. In order to achieve the best results, namely treatment compliance with antiretroviral therapy, it is vital to strengthen and have positive interactions amongst sources of support.

It is undeniable that internal factors, in addition to the aforementioned support elements, affect treatment compliance. Internal variables in PLHIV can include awareness of the disease and a desire to stay healthy.

REFERENCES


