



INTERVENTIONS TO IMPROVE SELF-MANAGEMENT IN HIV/AIDS PATIENTS: A SCOPING REVIEW

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ABSTRACT

Data from the Ministry of Health states that 23% of people living with HIV/AIDS (PLWHA) experience drug withdrawal. Self-management refers to managing disease needs, activating social support, and living with a chronic disease. Self-management has also been shown to control patients' adherence to medication so that it can increase CD4 counts in PLWHA and improve some clinical symptoms. Specific therapy for HIV cases has not been found to cure HIV infection, but HIV self-management can slow down or prevent the occurrence of more severe conditions. Based on this, self-management is very important for HIV/AIDS patients. This study aims to determine interventions that can improve self-management in HIV/AIDS patients. Methods: Literature sources were obtained through searches using the Scopus, Science Direct, Google Scholar, and PubMed databases with the last 5 years of research (2018-2023). The keywords used in the search were intervention, self-management, and HIV/AIDS. The search equation was applied without limitation, taking into account the title, abstract, interventions, and methods used. Articles that had been obtained were then analyzed for differences and duplication. A chart for visual representation of how the search and selection of articles was made PRISMA-SR flow diagram. Data extraction was done by creating tables. Results: interventions used to improve self-management in HIV/AIDS patients include self-management applications, spiritual counseling, and prayer therapy. Conclusion: The interventions used were proven to improve self-management in HIV/AIDS patients.

Keywords: HIV/AIDS; intervention; self management

First Received	Revised	Accepted
28 March 2024	28 April 2024	30 April 2024
Final Proof Received	Published	
04 August 2024	01 October 2024	
How to cite (in APA style)		
Mayaut, S. C., Sujianto, U., & Udji, M. A. (2024). Interventions to Improve Self-Management in HIV/AIDS Patients: A Scoping Review. <i>Indonesian Journal of Global Health Research</i> , 6(6), 3947-3954. https://doi.org/10.37287/ijghr.v6i6.3379 .		

INTRODUCTION

The prevalence of Human Immunodeficiency Virus (HIV) cases globally based on data from the United Nations Program on HIV and AIDS (UNAIDS) in 2018 reached 36.6 million and an increase in 2020 of 37.7 million people from various countries. Asia Pacific ranks second with 5.8 million after East and South Africa with 20.6 million. (UNAIDS, 2021). The prevalence of HIV in Indonesia until December 2022, from an estimated 526,841 people living with HIV, is known to be 81%, namely 429,215 people. There are 179,659 (42%) people living with HIV who are currently receiving ARV treatment and 36,821 people who will be tested for viral load in 2022 with 91.1% of the virus suppressed. Based on data from the HIV information system, from 2018 - 2022, the increase in new PLHIV was seen to decrease in 2020 - 2021 and in 2022, there were 42,005 case findings to 428,215 people knowing their status and still alive (81%). The estimated number of people living with HIV in 2020 was 543,100. For ODHIV who know their status and receive ARV treatment, there is a decrease in 2021 and in 2022 there are 42% of ODHIV receiving treatment. In 2020-2021, the

Covid-19 pandemic situation affects case finding and ARV treatment for PLHIV who have been diagnosed with HIV infection. (Directorate of Infectious Disease).

Data from the Ministry of Health states that 23% of people living with HIV/AIDS (PLWHA) experience drug withdrawal. The Ministry of Health implements the STOP program (Suluh, Temukan, Obati dan Pertahankan) as an effort to handle PLWHA who drop out of drugs so that PLWHA return to antiretroviral therapy (ARV). (KEMENKES RI, 2020). Specific therapy for HIV cases has not yet found a definitive cure for HIV infection, but HIV self-management can slow or prevent the occurrence of more severe conditions (Mehraeen et al., 2020). Self-management refers to the issue of managing disease needs (managing medication, daily physical health), activating social support (family, peers, and HIV care providers), and living with a chronic disease. Self-management has also been shown to control patients' medication adherence, which can increase the cluster differential 4 (CD4) score in PLWHA and improve some clinical symptoms (Areri et al., 2020). Some evidence suggests that self-management interventions delivered either online, face-to-face, or group-based consisting of booklets, leaflets, or manuals are effective in reducing pain and physical symptoms in PLHIV. (Nkhoma et al., 2018).

Self-management is an important part of the continuum of care for patients living with chronic disease conditions (Grady & Gough, 2018). Self-management contributes to improving health status by increasing an individual's knowledge, skills, and confidence to manage their disease including their ARV medication schedule. Self-management can prevent HIV from becoming a more serious stage, reduce hospital visits, improve care and clinical outcomes and reduce the burden of comorbidities. (Areri et al., 2020). PLWHA can experience several biological, psychological, social and spiritual disorders when facing incurable diseases and have a tendency to be stigmatized by the general public. To provide effective nursing care, nurses can assist in meeting the emotional and spiritual needs of PLWHA. (Sinanaj et al., 2018). Other problems that occur in people with HIV / AIDS are biologically due to a decrease in body immunity which is shown by physiological problems such as continuous diarrhea, decreased appetite, weight loss, psychological problems such as anxiety, fear, low self-esteem, and social isolation as well as spiritual problems (beliefs and values). (Nursalam & Dian, 2018), (Juli Andri, Agus Ramon, Padila, Andry Sartika, 2020). Based on this, self-management is very important for HIV/AIDS patients. This study aims to determine interventions that can improve self-management in HIV/AIDS patients.

METHOD

This article uses a scoping review approach. The purpose of writing a scoping review article is to identify the findings that have been done and the gaps in the existing literature. The steps for preparing this scoping review follow the five stages described in Arksey & O'Malley's framework, namely:

Stage 1: Identifying the research question

The research question used in this scoping review is "what are the interventions that can improve self-management in HIV/AIDS patients?"

Stage 2: Identifying relevant research

The studies used as a review were those that met the following inclusion criteria: a) the participants in the study were HIV/AIDS patients, b) the results of the study were interventions to improve self-management in HIV/AIDS patients, c) the research article was quantitative research, d) the year of publication of the research in the 2018-2023 timeframe,

and e) the research was in English and Indonesian. The electronic databases used were Scopus, ScienceDirect, Google Scholar, and PubMed. The search for research articles was conducted in February 2024. The keywords used in the search were intervention, self management, HIV/AIDS.

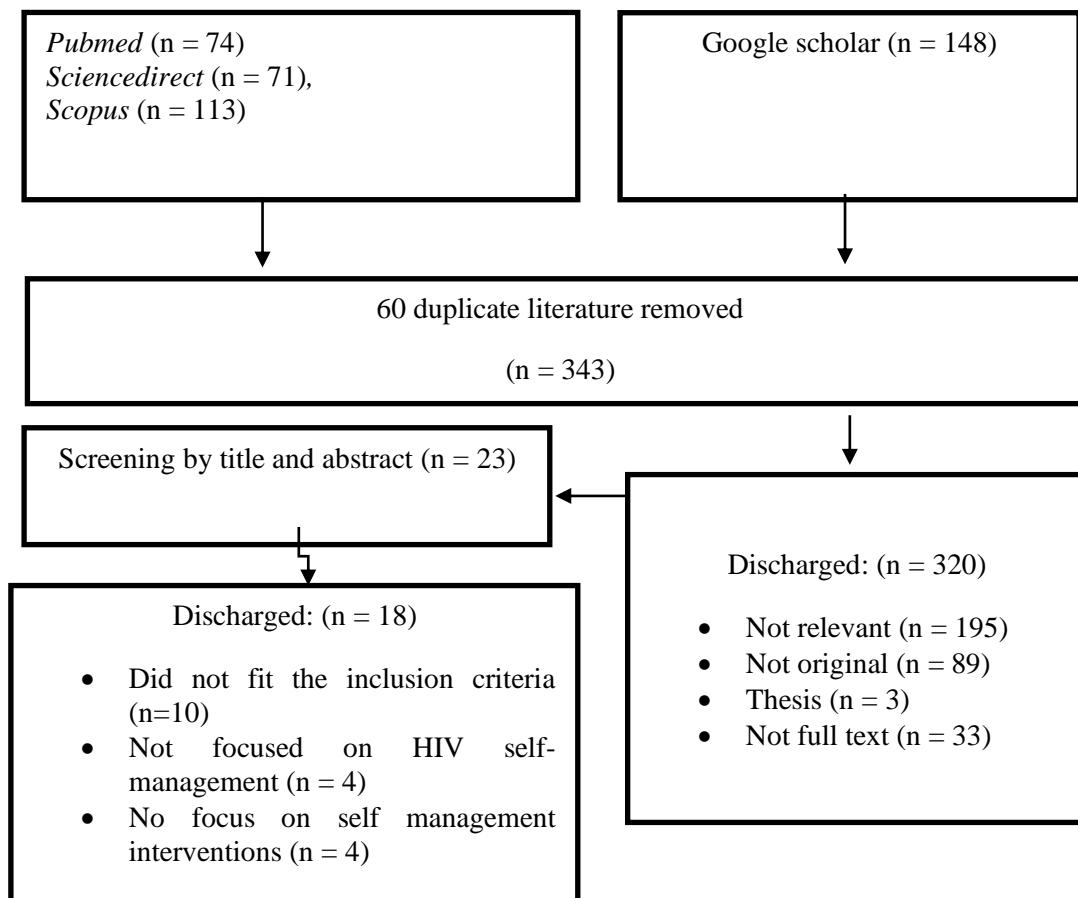


Figure 1. PRISMA Flowchart Diagram

Stage 3: Research selection

The first selection was made by looking at relevant titles, while irrelevant ones were excluded. Next, the abstracts of the articles were reviewed and those that met the inclusion criteria were identified. The full text of the abstracts was read to determine which studies were included in the review.

Stage 4: Mapping the data

Articles that have been obtained are then analyzed for differences and duplication. A Preferred Reporting Items for Systematic Reviews and MetaAnalyses for Scoping Review (PRISMA-SR) flow diagram was created for visual representation of how the articles were searched and selected.

Data extraction was performed in Microsoft Word by creating a table containing several components namely researcher, year of publication, study objectives, study design, study site, interventions used, technology used, participant characteristics, measurement methods, outcome measures and relevant key findings.

Stage 5: Compile, summarize and report results

Studies were summarized descriptively and compared to the review articles. More specialized summaries included significant and non-significant outcomes; type of intervention (single or complex); length of intervention; intervention methods and measurement tools used.

RESULTS

The researcher has identified 5 articles related to interventions to improve self-management in HIV/AIDS patients. Based on this identification, the results obtained in the form of interventions used to improve self-management in HIV/AIDS patients include self-management applications, spiritual counseling, and prayer therapy. The interventions used are proven to improve self-management in HIV/AIDS patients.

Table 1.

Studies of Interventions to Improve Self-Management in HIV/AIDS patients

Researcher (Year)	Destination	Methods	Results
Interventions to improve self-management of adults living with HIV on antiretroviral therapy: A systematic review. (Areri et al., 2020)	To find out what interventions are carried out to improve the self-management of adults with HIV who are undergoing ARV therapy.	A systematic review	Interventions to improve self-management varied across studies. However, promising results were achieved in most studies through interventions that combined skills training, telephone counseling, symptom management education, and mobile phone-based symptom management interventions.
Self-management interventions for adolescents living with HIV: a systematic review. (Crowley & Rohwer, 2021)	To find out what interventions are carried out to improve self-management of adolescent children with HIV	Systematic Review: randomized controlled trials (RCTs)	In this article there are several studies conducted in various countries, including the United States, Thailand and Africa. There are several diverse interventions discussed that can improve self-management carried out individually, in groups, offline, online using cell phones, and information communication technology. These diverse interventions are provided by trained counselors to professional health workers and colleagues. Self-management interventions compared with usual care for ALHIV were not significantly different in outcomes related to improved health. However, some of the self-management interventions discussed show that doing so can increase medication adherence and reduce HIV viral load.
A mobile-based self-management application-usability evaluation from the perspective of HIV-positive people. (Mehraeen et al., 2020).	This study was conducted to study evaluate a self-management application based on cellular adapted to the stages of HIV infection	cross sectional	From the results of this study, it was found that the use of this self-management application is effective and can help HIV patients in ensuring increased adherence to ARV treatment, and this application can prevent the increasing stages of HIV disease experienced by patients.
The Effect of Prayer Therapy on Lymphocyte Levels of Aids Patients at Dr. M. Haulussy Ambon	This research aims to determine the effect of prayer	Quasi Experiment with non randomized	Based on the results above, it illustrates that before the treatment (provision of prayer and ARV therapy) tested through pre-test CD4 levels of

Researcher (Year)	Destination	Methods	Results
Regional General Hospital (Aziza, 2018)	therapy on lymphocyte levels (CD4) of HIV / AIDS patients	control group design with pre test and post test	HIV/AIDS patients. all scores are very low. After the treatment (giving prayer therapy) was tested Through the post test, it is illustrated that there is an increase in CD4 levels of HIV/AIDS patients. The improvement was seen from the CD4 levels after treatment increasing in 90% of patients. However, there was 1 patient (1%) whose post-test CD4 level was lower than the pre-test.
The Effect of Spiritual Counseling on Spiritual Health Quality of Life in Patients with HIV/AIDS. (Hasanah et al., 2019)	This study aims to determine the effect of spiritual counseling on quality of life. spiritual health in HIV/AIDS patients.	pre-posttest quasi-experimental design with control group.	Results showed a significant difference in spiritual health quality of life between control and experimental groups. The results of the paired t-test before and after the intervention on the The experimental group showed a p-value <0.05, while in the control group, the p-value was >0.05. After the intervention, the p value in both experimental and control groups was <0.05, indicating that This study concluded that spiritual counseling interventions have an effect on improved spiritual health quality of life in HIV/AIDS patients. Therefore, the hospital needs to consider the results of this study as one of the interventions in providing nursing care to HIV/AIDS patients which means good for self-management of HIV patients.

DISCUSSION

HIV is a virus that infects white blood cells which causes a decrease in the human immune system. (KEMENKES RI, 2020). HIV is transmitted through body fluids such as blood, vaginal fluids, semen and breast milk. HIV can be transmitted in several ways, namely unsafe sexual intercourse. Heterosexual and homosexual relationships. HIV transmission is most likely to occur through sexual intercourse and the risk of infection is greater if the relationship causes injury or ulceration in the genital area. Blood transfusion from a person with HIV to a donor who is HIV negative. The risk of transmission is 90%. Perinatal. HIV positive birth mothers are more likely to give birth to HIV infants. The use of needles and syringes alternately and not sterile able to transmit HIV (Chen et al., 2018). Human Immunodeficiency Virus (HIV) is a retrovirus that attacks the immune system or lymphotropic which typically damages white blood cells that are specific to T-helper lymphocytes or CD4. The structure of this virus consists of an outer envelope or envelope composed of a layer of glycoprotein gp41 in the first layer, the second layer consists of p17 protein, in the core or the center is formed by p24 in which there are 2 pieces of RNA and reverse transcriptase enzyme (Klatt, 2022). (Klatt, 2022).

Self-management is a process where individuals and families use knowledge, beliefs, and skills. Self-management is a person's ability to handle their health problems and improve their nursing skills. (Sassen, 2018). Self-management can be done with support from surrounding

parties including health workers. Self-management refers to the issues of managing disease needs (managing medication, daily physical health), activating social support (family, peers, and HIV care providers), and living with a chronic illness. (Russell et al., 2018). Self-management has also been shown to control patients' medication adherence, which can increase the cluster differential 4 (CD4) score in PLWHA and improve some clinical symptoms (Areri et al., 2020). (Areri et al., 2020). The expected result is acceptance of their disease status, as well as improving the quality of life of HIV / AIDS patients.

Based on Mehraeen, et al. research, one intervention that can be used to improve self-management in HIV patients is a self-management application. This application is based on the stage of the disease, helps identify different patient expectations and abilities, and can respond to the psychological and social demands of patients. The app also helps to ensure increased medication adherence, and improved performance of HIV patients through mobile-based follow-up. (Mehraeen et al., 2020). Good daily physical activity and acceptance of HIV status as a chronic disease is one component of self-management. Management of spiritual aspects can increase patient acceptance of their current condition, so that the patient's quality of life improves. Based on the results of research by Hasanah, et al., spiritual counseling interventions can improve the quality of life of people with HIV / AIDS. (Hasanah et al., 2019). This counseling is carried out offline and even using mobile phones online which discusses symptom management and symptom management interventions so that HIV patients can know and carry out HIV management well (Areri et al., 2020)

Spiritual healing can also affect CD4 levels in the body of HIV/AIDS sufferers. Based on the results of Wahyu Aziza's research, prayer therapy conducted for 30 minutes twice a day can have a significant effect on CD4 levels. Prayer in an atmosphere of surrender and peace will make the body release cortisol, epinephrine and norepinephrine, which are hormones that relieve stress. These chemicals can increase immunity and inhibit the development of disease. (Aziza, 2018). Some of these interventions can be alternative interventions to help improve self-management in HIV/AIDS patients. HIV/AIDS patients who have good self-management, the quality of life will also improve.

CONCLUSION

Self-management refers to the issues of managing disease needs, activating social support, and living with a chronic disease. Self-management has also been shown to control patients' medication adherence, which can increase CD4 counts in PLWHA and improve some clinical symptoms. There is no definitive cure for HIV infection, but HIV self-management can slow or prevent the onset of more severe conditions. Interventions used to improve self-management in HIV/AIDS patients include self-management apps, spiritual counseling, and prayer therapy. These interventions have been shown to improve self-management in HIV/AIDS patients

REFERENCES

Areri, H. A., Marshall, A., & Harvey, G. (2020). Interventions to improve self-management of adults living with HIV on antiretroviral therapy: A systematic review. *PLoS ONE*, 15(5), 1-22. <https://doi.org/10.1371/journal.pone.0232709>

Aziza, W. (2018). The Effect of Prayer Therapy on Lymphocyte Levels of Aids Patients at Dr. M. Haulussy Ambon Regional General Hospital. *Integrated Health Journal*, 9(1), 1-7. <https://doi.org/10.32695/jkt.v1i9.6>

Chen, L., Jha, P., Stirling, B., Sgaier, S. K., Daid, T., Kaul, R., & Nagelkerke, N. (2018). Sexual risk factors for HIV infection in early and advanced HIV epidemics in sub-Saharan Africa: Systematic overview of 68 epidemiological studies. *PLoS ONE*, 2(10). <https://doi.org/10.1371/journal.pone.0001001>

Crowley, T., & Rohwer, A. (2021). Self-management interventions for adolescents living with HIV: a systematic review. *BMC Infectious Diseases*, 21(1). <https://doi.org/10.1186/s12879-021-06072-0>

Directorate of Communicable Disease Prevention and Control, Ministry of Health. (2022). 2022 Performance Report.

Grady, P. A., & Gough, L. L. (2018). Self-management: A comprehensive approach to management of chronic conditions. *American Journal of Public Health*, 108(8), S430-S436. <https://doi.org/10.2105/AJPH.2014.302041>

Hasanah, U., Ibrahim, K., & Sriati, A. (2019). The Effect of Spiritual Counseling on Spiritual Health Quality of Life in Patients with HIV/AIDS. *Nurs Media*, 9. <https://doi.org/10.14710/nmjn.v9i1.22983>

Juli Andri, Agus Ramon, Padila, Andry Sartika, E. P. (2020). Experiences Of Patients With Hiv In Physiological Adaptation. *Journal of Telenursing (JOTING)*, 2, 1-9. <https://doi.org/https://doi.org/https://doi.org/10.31539/joting.v2i2.1397>

KEMENKES RI. (2020). Hiv Aids Infodatin. *Health*, 1-8.

Klatt, E. C. (2022). Pathology Of Hiv/Aids 33rd Edition.

Mehraeen, E., Safdari, R., SeyedAlinaghi, S. A., Noori, T., Kahouei, M., & Soltani-Kermanshahi, M. (2020). A mobile-based self-management application- usability evaluation from the perspective of HIV-positive people. *Health Policy and Technology*, 9(3), 294-301. <https://doi.org/10.1016/j.hlpt.2020.06.004>.

