

Hiv Health Treatment Programs in Rural Areas and The Role of Nurses to Promote the Program

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Abstract

Background: HIV healthcare treatment programs aim to identify, diagnose, treat and prevent patients infected with AIDS or HIV. Nurses take the lead role in fighting against this disease and are responsible for providing intimate care and treatment to infected patients. Materials and methods: Secondary qualitative data has been collected in this study associated with HIV healthcare programs in rural areas and the role of nurses to promote these programs. Results: The main barriers affecting the promotion of HIV healthcare treatment programs in rural areas include social stigma, cultural barriers and lack of proper awareness about the factors causing HIV. Conclusion: The effectiveness and importance of HIV healthcare treatment programs as well as its barriers have been addressed with a special reference to Indian rural areas. Rural areas in India consist of various crucial issues creating barriers to the promotion of HIV treatment programs which can be prevented by government interventions.

Keywords: HIV health treatment programs, rural areas, prevention programs, effective nursing, prevalence strategies

1. Introduction

1.1 Background

HIV or Human Immunodeficiency Virus has become a major health crisis across the whole world in the past few decades and especially in rural areas it is very hard to provide proper care and treatment for the common people. People living in rural areas face significant barriers to accessing prevention and treatment services for HIV. These communities have fewer options for health care overall, including family doctors, dentists and mental health providers. Besides that, in this digital, with the help of advanced technologies, it is easy to connect with HIV patients through various mediums which effectively increase the treatment rates of the disease. In 2000, the number of people infected with HIV was almost 26 million people which increased to 38.4 million people in 2021 [1]. Although the number of indicted people decreased to 2.9 million in the year 2000 and 2021, it decreased by 105 million people with the help of proper treatment and care.

With the help of different technologies, medical sciences have provided multiple proven and cost-effective programs to provide proper cures and

treatment for HIV patients, especially for patients who live in rural areas [2]. In these programs the role of nursing is a major part of educating patients about HIV, providing support for treatment, adherence and assisting with the navigation of care delivery and many other ways. Thus, in this study, all the necessary aspects of HIV health treatment programs in rural areas and the role of nursing in this program have been evaluated in a detailed manner throughout the study to improve the outcomes of the study.

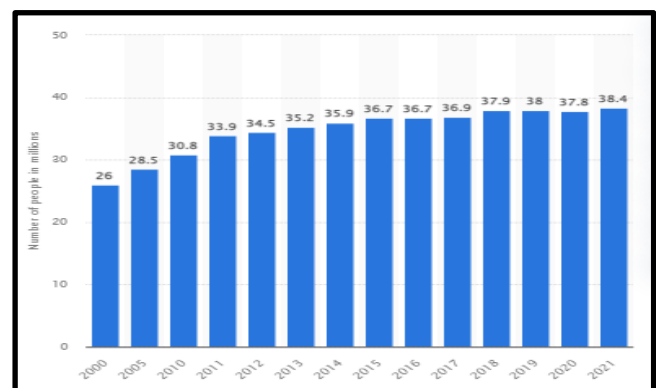


Figure 1 : Total Number of HIV patients worldwide (2000 - 2021)
(Source: [1])

1.2 Aim and objectives

This study aims to focus on the different aspects of HIV health treatment programmers in rural areas and the role of nursing in these programs in accordance with these aspects different objectives have been developed in this study such as:

1. To identify the different HIV treatment programs in rural areas and understand the role of nursing in HIV treatment programs
2. To find out the barriers to HIV treatment programs in rural areas and recommend strategies to prevent the barriers

1.3 Significance of the study

The present study has provided significant insights associated with HIV healthcare treatment programs in rural areas and nurses' roles to promote these programs. In addition, various barriers associated with the promotion of HIV healthcare programs in rural areas have also been addressed. It has been observed that the main barriers affecting the promotion of HIV treatment programs are social stigma, a crucial lack of awareness and a lack of privacy. Nurses are responsible for ensuring care and treatment for HIV patients and remain at the forefront of the fight against HIV. Potential solutions to prevent the barriers and improve the role of nurses have also been highlighted in this study. The government can take effective interventions to improve the role of nurses along with helping them to prevent these barriers and promote HIV treatment more efficiently. Therefore, this study has also provided effective insights on required actions regarding HIV care and treatment in rural areas.

2. Materials and Methods

Research philosophy deals with the source, nature and development of knowledge about the phenomenon of the study. Research philosophy is a belief about the way in which information about the phenomenon of the study will be gathered and analysed throughout the study to establish effective outcomes of the study. There are different types of research philosophy among them interpretivism philosophy is based on the naturalistic approach of data collection by interviewing and observing the gathered information which helps to establish a better research study from them [3]. Thus, the interpretivism philosophy has been followed in this study to conduct a proper research study by gathering appropriate information about the phenomenon of the study.

Research design is a research framework chosen by the researcher which includes different research methods and techniques to conduct the research study in a proper and logical way. There are different types of research designs for conducting different research designs, among them the exploratory design helps to explore the research issue by investigating the problem which is not clearly defined to conduct a study in depth [4]. Hence, in

this study, the exploratory research design has been followed to conduct the research in a different way that has not previously been studied in depth to establish proper outcomes of the study.

Along with that, a research approach is defined as research procedures that are selected by the researcher to gather information from different sources, analyse and interpret the collected data to conduct an appropriate outcome of the study. The inductive approach helps to draw the researcher a conclusion by going from specific to general by interpreting the gathered data to establish a better understanding of the phenomenon of the study [5]. In this study, the inductive research approach has been followed to conduct a research paper with a better understanding of the phenomenon of the study by going from specific to general research issues to improve the outcomes of the study.

The inclusion and exclusion criteria help the researcher to filter the gathered information and data to conduct a more effective research study for the common people [6]. Through the inclusion criteria, the researcher has gathered information from reliable and relevant sources such as journals, newspaper articles, reliable sources and many others to conduct a proper research study. Besides that, the researcher has gathered information from those sources which are published from 2018 to 2023. Apart from that, through the exclusion criteria, the researcher has excluded information that is in another language rather than in English and also has excluded information from, doctoral papers, advertisement sources, conference papers and many other sources to maintain the effectiveness of the research study.

Secondary data collection is the data collected by someone else than the actual user, which means, the information is already available and someone analyses it in different ways. In this study, all the information and data have been collected in a secondary data collection method to conduct a better research study about the phenomenon of the study [7]. Besides that, thematic analysis is a method of analysing the qualitative data by examining the research problem closely and dividing the collected information into different themes to interpret the data in a better way and establish a better understanding of the phenomenon of the study [8]. Hence, the thematic analysis has been followed in this study to conduct an appropriate study by interpreting the collected data in different themes to establish a better understanding of the phenomenon of the study. However, all the ethical considerations have guided the researcher while properly conducting this study and all the ethical guidelines have been followed throughout the study to provide a better research study for the common people.

3. Results and discussion

3.1 Overview of HIV health treatment programs

HIV is treated with antiretroviral therapy which does

not cure HIV but reduces its replication in the blood and this therapy consists of one or more medicines which help people living with HIV to lead healthy and productive lives. HIV attacks the immunity system of the human body and weakens it which increases opportunistic infections such as tuberculosis and fungal infections, bacterial infections, cancers and many others. The World Health Organisation or WHO has provided free testing for HIV to help patients in effective ways and especially people who live in rural areas [9].

In this digital era, with different implications of advanced technologies in the medical sciences have improved the treatment procedures of HIV to give proper care for the patients and WHO has established a program in which they have linked ART therapy with HIV testing to provide effective treatment to the patient across the whole world. This virus came from the chimpanzee in central Africa in the late 1800s and this virus infected human blood circulation which created havoc among common people from all around the world [10]. However, no permanent cure has been invented for this virus but with a proper medical cure HIV even be controlled and the affected patients can live a healthy lifestyle.

3.2 HIV health treatment programs in rural areas

Every country in the whole world has established different programs regarding HIV health treatment, especially in rural areas to provide more medical care and treatment for HIV patients. In India, the "National AIDS control Control Programme" (NACP) was launched in 1962 for preventing HIV/AIDS and over time the focus of this program has shifted to decentralised response and increased the involvement of NGOs rather than spreading awareness about HIV to change their lifestyle. However, over time there are many "NACP" strategies had been made in the country to provide better treatment for the patients among them the "NACP IV" is much more effective in providing care and treatment for the patients, especially to the patients who live in rural areas of India.

Besides that, there is a reciprocal relation between nutrition and effective immune functioning which critically manages HIV. The "Comprehensive Health Seeking Coping Paradigm" (CHSCP) provides a guiding framework for designing a strategy regarding the prevention of HIV and implementing that strategy amongst community-based interventions in vulnerable populations to prevent HIV [11]. Apart from these, WHO has provided a combination prevention approach which are rights-based, evidence-informed and community-owned programmes that helps to prioritise HIV prevention and have a sustainable impact in reducing new infections and effectively improving the immunity system of the human body [12].

3.3 Barriers to HIV health treatment programs in rural areas

Many factors create barriers and challenges regarding the establishment of HIV prevention

programs in the rural areas of the country. Different factors such as poverty, limited resources and structural barriers create challenging situations while establishing HIV prevention programs in rural areas. Besides that, there are other factors such as:

Lack of anonymity: as the rural communities are small and the social network is also small it is difficult for an individual to seek HIV services privately [13]. This lack of anonymity establishes a barrier to HIV prevention.

Stigma: Stigma in rural communities affects the common people and thus people with HIV fear getting judged by the community people and are less willing to be tested or treated for HIV.

Lack of awareness: There is a lack of awareness about the prevention of HIV in rural areas as the common people have less knowledge about the negative impacts of HIV thus they are unable to understand the importance of spreading awareness about preventing HIV in the rural communities [14].

Lack of services: In rural communities, there are not many sustainable services available in the rural areas and also lack of transportation is another barrier to establishing prevention programs for HIV in rural areas.

Apart from all these factors, there are many other barriers such as *lack of specialist providers, low population density and HIV prevalence, cost of treatment, insufficient access to the internet* and many others that effectively created challenging situations while establishing HIV prevention policies in the rural areas.

3.4 Role of nurses to promote these programs

WHO have characterised 2020 and 2021 as the International year of Nurses and Midwife as their efforts to contain and mitigate the COVID-19 pandemic were huge. Nurses play a huge role in promoting HIV programs in the rural areas of the country and effectively spreading knowledge about HIV amongst the common people of rural communities across the whole world [15]. The global fight against HIV/AIDS has been a workforce-intensive effort and all the nurses from different countries around the world have struggled a lot to protect HIV patients from dying. In a report of 2021, it was estimated around 38.4 million people were living with HIV/AIDS and among them, 28.7 million people had been diagnosed with ART therapy treatment [16].

Communication is a very important aspect of maintaining the relationship between a nurse and their patient and communication provides comfort to the patient to open up about their problem and helps nurses to provide proper care and treatment for their patient. Nurses comfort HIV patients to open up about their illness, provide knowledge about the virus and help to establish a better understanding of the importance of the prevalence of HIV in rural communities [17]. Hence, nurses positively play a huge role in promoting HIV prevention programs among rural communities which effectively increase cure and treatment

programs for HIV among the common people of rural areas.

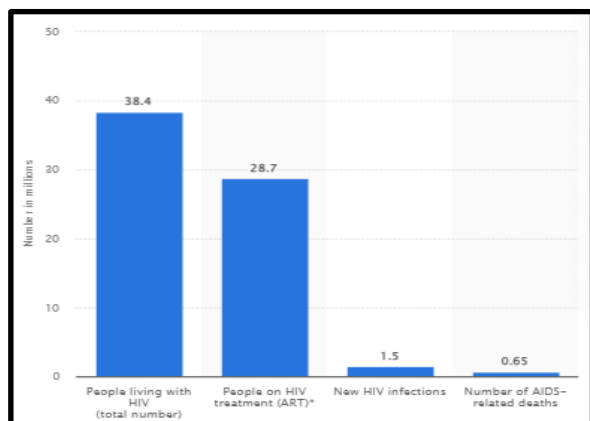


Figure 2: Global HIV/AIDS epidemic of 2021 [16]

3.5 Strategies to prevent the barriers

There are different effective strategies to prevent the barriers of establishing HIV prevention programs in rural areas such as the usage of appropriate medicines to treat HIV, having protected physical intimacy with partners as this disease is sexually transmitted, increasing the promotion of condoms in the rural areas and many other ways. Combination prevention strategies are more effective than any others which help to promote multiple factors that are associated with HIV which helps to reduce the barriers to HIV programs [18]. Apart from that, men who have sex with men, people who have unprotected sex, genetically got affected by HIV and many other factors are associated with HIV/AIDS the prevention policies provide guidance for the common people and provide an effective treatment which reduces the barriers related with establishment of HIV prevention strategies in the rural area.

4. Discussion

HIV is a sexually transmitted disease and people in rural areas have less knowledge about HIV and its prevention thus the number of HIV patients in urban areas is less than that patients of in rural areas. In this study, all the important aspects of preventing the disease, especially in rural areas have been evaluated in a detailed manner. People in rural areas have less knowledge about the concept of HIV and the importance of preventing this disease. Thus, to educate the common people about HIV, different programs have been established to spread the knowledge among the people of rural areas such as the "NACP", "CHSCP" and many others which effectively help to provide care and treatment for HIV patients. Besides that, WHO has provided different effective programs to control the number of patients affected by HIV [19]. There are many barriers to establishing HIV prevention strategies in rural areas such as poverty, lack of awareness, lack of knowledge, lack of anonymity and many others which create challenging situations and troubles. These factors negatively impact the health of HIV

patients as in rural areas there is less transportation process and due to less knowledge, those patients are unable to access proper treatment and cure the disease. However, with the help of different effective technologies medical sciences have been improved over time and with the help of advanced nursing processes trained nurses to establish a better relationship with the patients and provide appropriate cures and treatments for them. Apart from that, nurses promote the different aspects of the prevalence of HIV in rural areas such as they promote the importance of condoms, the negative impacts of unprotected sex, promote healthy ways to lead their lifestyle and many others which effectively help to reduce the number of people affected with HIV across the world [20]. Hence, different strategies for establishing HIV prevention programs in rural areas have been evaluated in this study in a detailed manner to reduce the negative impact of HIV and provide more effective medical service and treatment for HIV patients in rural areas.

5. Conclusion

In this study, all the important aspects associated with HIV prevention in rural areas have been evaluated in a detailed manner to conduct a proper research paper for the common people. In this study, there is a detailed discussion about the barriers to establishing HIV prevention programs in rural areas and all the negative impacts of HIV have been concluded throughout the study. The lack of knowledge, awareness, lack of transportation, and lack of anonymity, poverty and many other factors created challenging situations while establishing HIV prevention programs in rural areas. Besides that, nurses play a huge role in controlling disease and effectively providing proper care and treatment to patients with the help of advanced medical technologies. Over time with the help of advanced technologies people get treatment though there is no permanent cure for this disease prevention programs help to control the disease thus HIV patients can lead a healthy and long life.

References

- [1] Elflein J. Total number of people living with HIV worldwide from 2000 to 2021 [Internet]. Statista, 2023. Available from: <https://www.statista.com/statistics/257197/number-of-people-living-with-hiv-worldwide-since-2001/>
- [2] Hoover J, Koon AD, Rosser EN, Rao KD. Mentoring the working nurse: a scoping review. *Human resources for health*. 2020 Dec;18(1):1-0. Available from: <https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-020-00491-x>
- [3] Alharahsheh HH, Pius A. A review of key paradigms: Positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*. 2020 Feb;2(3):39-43. Available from: 10.36348/gajhss.2020.v02i03.001

- [4] Asenahabi BM. Basics of research design: A guide to selecting appropriate research design. *International Journal of Contemporary Applied Researches*. 2019 May;6(5):76-89. Available from: <http://ijcar.net/assets/pdf/Vol6-No5-May2019/07.-Basics-of-Research-Design-A-Guide-to-selecting-appropriate-research-design.pdf>
- [5] Patel M, Patel N. Exploring Research Methodology. *International Journal of Research and Review*. 2019;6(3):48-55. Available from: https://d1wqtxts1xzle7.cloudfront.net/63543152/IJR001120200605-115829-bxlrli-libre.pdf?1591425499=&response-content-disposition=inline%3B+filename%3DExploring_Research_Methodology_Review_Ar.pdf&Expires=1675755823&Signature=PBBdv8tDeZBhB0RVPUxrtPsOHGVE~8KHsKkYTCxikLtG17TSl015pK6W2yEYvnSizV9X4dsDOg2enz7du0gPq23uxbvLQOJAWJI5NUkF~biOuJiSojH6K25FOD7sfkUZ7SzqzDJ3rFkPfcXRW1AxJQJfva~wvjOTpkmFB~ivD~UNvJbdjFrKO-REwGIHuhQxfAkLLRRcokS3rgJpkmlu6XOVFccNg--9m64XCcHDn~5F1620Suy-O3urcTsoMtV3jCqG9X2fJkPzyE8XU9BVUt6xOyV25kEzbZvllnhZILV-dVaAs2LmlLZk1RILRYKli9idH6f49RH8~aiwMKg__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA
- [6] Snyder H. Literature review as a research methodology: An overview and guidelines. *Journal of business research*. 2019 Nov 1;104:333-9. Available from: <https://doi.org/10.1016/j.jbusres.2019.07.039>
- [7] Ruggiano N, Perry TE. Conducting secondary analysis of qualitative data: Should we, can we, and how?. *Qualitative Social Work*. 2019 Jan;18(1):81-97. Available from: <https://doi.org/10.1177/1473325017700701>
- [8] Peel KL. A beginner's guide to applied educational research using thematic analysis. *Practical Assessment, Research, and Evaluation*. 2020;25(1):2. Available from: <https://doi.org/10.7275/ryr5-k983>
- [9] World Health Organisation. HIV/AIDS [Internet]. WHO, 2023. Available from: https://www.who.int/health-topics/hiv-aids#tab=tab_1
- [10] Centers for Disease Control and Prevention. ABOUT HIV [Internet]. CDC, 2022. Available from: [https://www.cdc.gov/hiv/basics/whatishiv.html#:~:text=HIV%20\(human%20immunodeficiency%20virus\)%20is,they%20have%20it%20for%20life.](https://www.cdc.gov/hiv/basics/whatishiv.html#:~:text=HIV%20(human%20immunodeficiency%20virus)%20is,they%20have%20it%20for%20life.)
- [11] Nyamathi AN, et al. Sustained effect of a community-based behavioral and nutrition intervention on HIV-related outcomes among women living with HIV in rural India: a quasi-experimental trial. *Journal of acquired immune deficiency syndromes (1999)*. 2019 Aug 8;81(4):429. Available from: 10.1097/QAI.0000000000002044
- [12] World Health Organisation. Global HIV Programme [Internet]. WHO, 2023. Available from: <https://www.who.int/teams/global-hiv-hepatitis-and-stis-programmes/hiv/prevention#:~:text=Combination%20prevention%20programmes%20are%20rights,impact%20on%20reducing%20new%20infections.>
- [13] Palk L, Okano JT, Dullie L, Blower S. Travel time to health-care facilities, mode of transportation, and HIV elimination in Malawi: a geospatial modelling analysis. *The Lancet Global Health*. 2020 Dec 1;8(12):e1555-64. Available from: <https://www.sciencedirect.com/science/article/pii/S2214109X2030351X>
- [14] Mathews A, et al. "Meet people where they are": a qualitative study of community barriers and facilitators to HIV testing and HIV self-testing among African Americans in urban and rural areas in North Carolina. *BMC public health*. 2020 Dec;20(1):1-0. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-08582-z>
- [15] Guilamo-Ramos V, et al. Nurses at the frontline of public health emergency preparedness and response: lessons learned from the HIV/AIDS pandemic and emerging infectious disease outbreaks. *The Lancet Infectious Diseases*. 2021 Oct 1;21(10):e326-33. Available from: [https://doi.org/10.1016/S1473-3099\(20\)30983-X](https://doi.org/10.1016/S1473-3099(20)30983-X)
- [16] Elflein J. Key figures on the global HIV/AIDS epidemic as of 2021 [Internet]. Statista, 2022, Aug 17. Available from: <https://www.statista.com/statistics/265886/key-figures-on-the-global-hiv-aids-epidemic/>
- [17] Kwame A, Petrucka PM. Communication in nurse-patient interaction in healthcare settings in sub-Saharan Africa: A scoping review. *International journal of Africa nursing sciences*. 2020 Jan 1;12:100198. Available from: <https://doi.org/10.1016/j.ijans.2020.100198>
- [18] Centers for Disease Control and Prevention. Effectiveness of Prevention Strategies to Reduce the Risk of Acquiring or Transmitting HIV [Internet]. CDC, 2022, June 17. Available from: <https://www.cdc.gov/hiv/risk/estimates/preventionsstrategies.html#:~:text=Using%20medicines%20to%20treat%20HIV,can%20all%20effectively%20reduce%20risk.>
- [19] Vanhamel J, et al. The current landscape of pre-exposure prophylaxis service delivery models for HIV prevention: a scoping review. *BMC Health Services Research*. 2020 Dec;20:1-8. Available from: <https://link.springer.com/article/10.1186/s12913-020-05568-w>
- [20] Xu H, et al. Sexual attitudes, sexual behaviors, and use of HIV prevention services among male undergraduate students in Hunan, China: a cross-sectional survey. *BMC Public Health*. 2019 Dec;19:1-9. Available from: <https://link.springer.com/article/10.1186/s12889-019-6570-2>