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EXPLORING THE IMPACT OF FOOD INSECURITY AMONG WOMEN AFFECTED BY HIV AND AIDS IN MUFAKOSE SUBURBS IN HARARE, ZIMBABWE

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Abstract. Food insecurity and HIV/AIDS are two intertwined pandemics ravaging Zimbabwe, disproportionately affecting women. The triple challenges such as unemployment, poverty and inequality steeped in unethical leadership and misgovernance exacerbate the preceding twin pandemic of HIV/AIDS and food insecurity in Zimbabwe. To mitigate the abovementioned challenge, the multilateral and the bilateral stakeholders in health and food security introduced the multisectoral governance systems in all the United Nations member countries. Notwithstanding the international, regional and local efforts to mitigate both the impact of HIV/AIDS and food insecurity among the women in Zimbabwe, the effects of these twin pandemics have continued to rise among the women and girls in the country. This study investigates the impact of food insecurity on women living with HIV/AIDS in Zimbabwe, shedding light on the complex relationships between poverty, nutrition and health. This qualitative study seeks to understand the complexities of human behaviour, experiences and social phenomena in the Mufakose Urban community of Zimbabwe. Women and girls who live with HIV/AIDS between the ages 15 and 49 residing in this community between 2015 and 2017 under antiretroviral therapy (ART) treatment were selected as information sources for this study. Twenty (20) informant interviews were conducted, with guided questions aimed at eliciting responses from participants, focusing on household food security. The study established that women living with HIV and AIDS face a plethora of challenges in terms of food insecurity and antiretroviral therapy. This has led to non-adherence for many of them. Most of the women fail to get adequate food and a consistent supply of ARV. Consequently, the study recommends taking a holistic approach to support women living with HIV and AIDS, both medically and nutritionally, without political or undue interference. The study further suggests exploring ways to enable policymakers and government officials to adopt a factual and non-stereotypical tone in supporting people living with HIV and AIDS in Zimbabwe.

Keywords: *Antiretroviral therapy, food insecurity, women, HIV/AIDS, Zimbabwe*.

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1. Introduction

This study explores the impact of antiretroviral therapy (ART) programs on the nexus of HIV/AIDS, food and nutrition security, with a specific focus on the high-density

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suburbs of Mufakose in Zimbabwe, Southern African region (Bhanye *et al*., 2023; Chevo, 2018; Matamanda & Nel, 2021). The study addresses the prevalent challenges of food insecurity among women living with HIV/AIDS in this community (Matamanda & Nel, 2021). The research delves into the multifaceted challenges faced by these women, encompassing personal, social and financial hurdles that disproportionately affect their well-being. Notably, the stigma and discrimination against women with HIV/AIDS are compounded by societal expectations, rendering them more vulnerable to food insecurity as they bear the responsibility of supporting their families (Watkins-Hayes, 2019). Numerous studies have highlighted malnutrition as a critical factor contributing to heightened fatigue and reduced physical activity among individuals affected by HIV/AIDS (Nyaruwata, 2020). Furthermore, it erodes household livelihoods by limiting the capacity to work and generate income for food accessibility. Recognising the intricate relationship between HIV/AIDS, nutrition and food security (Chigavazira, 2019), this research underscores the significance of maintaining food security for HIV-positive women, contributing positively to household income and community well-being.

The study provides a contextualised understanding of the Zimbabwean scenario, where staple food production, mainly maize, constitutes the backbone of subsistence families (Ngwenya, 2021). However, climatic uncertainties introduce seasonal fluctuations in availability and prices, impacting marketing opportunities and income generation. The compounding effect of HIV/AIDS on households exacerbates long-term challenges arising from micronutrient deficiencies. Antiretroviral therapy (ART) emerges as a pivotal intervention for controlling HIV replication and enhancing the health of individuals living with HIV/AIDS (Kpewou, 2017; Lieber *et al*., 2021). The research acknowledges specific ART programs, such as the Prevention of Mother-to-Child HIV Transmission (PMTCT) for pregnant women. The National AIDS policy, adopted in 1999, guided health promotion services and addressed the nutritional needs of individuals with HIV/AIDS. Subsequently, the National HIV and AIDS Strategy framework of 2000 provided guidelines for addressing food and nutrition, care and treatment.

Despite the initiation of the ART program in 2004, challenges persist, as evident from the World Food Programme's recognition of ongoing food insecurity among women. (Crush & Frayne, 2011; Misselhorn *et al*., 2012; Shiferaw *et al*., 2013). This research aligns with global initiatives, particularly the Sustainable Development Goals, emphasising the reduction of hunger and the halting and reversing of the spread of HIV/AIDS (Mehra et al., 2017; Organization, 2015b). It investigates factors contributing to food access constraints, including poverty, low productivity, employment inadequacies, high food prices, weather shocks, economic instability and liquidity issues. The study also recognises complementary initiatives, such as the National Home-Based Care Standard (NHBCS) and global resolutions, including the World Health Assembly's integration of nutrition in responses to HIV/AIDS. The research explores the effectiveness of these programs, aiming to answer the critical question regarding the impact of ART on care and support and the challenges faced by women on ART in accessing food and support.

Problem Statement

The initiation of antiretroviral therapy (ART) has undoubtedly improved the health outcomes for individuals living with HIV and AIDS (Boyd *et al*., 2019; Buell *et al*., 2016; Crush & Frayne, 2011). However, a significant challenge persists among women enrolled in ART programs in the Mufakose high-density suburb as they continue to grapple with

food security issues (Gutsa, 2017). Despite the availability of ART at various health centres in Harare, women residing in Mufakose endure long journeys to access treatment, often travelling to distant locations such as Epworth and Makumbi Mission Hospital in Goromonzi (Nyamudo, 2020). These journeys are fuelled by the need not only for ART but also for supplementary food aid provided by organisations like Action Aid and the Global Fund. The overarching problem arises from the persistent food insecurity experienced by women in Mufakose, prompting the question of why, in the presence of seemingly effective ART programs, women still face nutritional challenges. The migration of women within Harare, coupled with the high cost and time constraints associated with travel, exacerbates the predicament. This situation raises concerns about the adequacy of current strategies and initiatives designed to support women with HIV and AIDS in terms of nutrition and food security.

Since the initiation of the HIV ART program in 2004, a shift in the delivery system has been observed, particularly concerning the supply of ART and food handouts. Initially provided concurrently, the supply of food handouts ceased after a few months, leading to defaulting and non-adherence to treatment among food-insecure women. The urban setting presents challenges in implementing efficient community ART refill groups, contributing to the irregular supply of ART to women in Mufakose. While organisations like the Red Cross and Red Crescent have previously supported pregnant and lactating women with food donations, dwindling sponsorship has resulted in the cessation of these initiatives. Similarly, Action Aid's monthly food rations, which reached areas like Mbare and Epworth, excluded Mufakose women, compelling them to travel to Mbare for inclusion. Political and corrupt or unethical practices within health centres have further halted these food rations. Considering these challenges, the study unravelled the survival impact of the lack of support for women in the Mufakose high-density suburb living with HIV and AIDS, specifically regarding ART and food security in the region.

Research Questions

Derived from the overarching problem statement above, the study was guided by two research questions during the literature review. The questions listed below served as focal points to understand the study's challenges.

- What is the impact of the lack of support on women with HIV and AIDS at the household level, particularly concerning their challenges in accessing food?
- How does the lack of support impact women with HIV/AIDS at the household level, especially regarding food access challenges?
- To what extent do the challenges faced by women with HIV and AIDS in care and support of themselves at the household level affect their well-being?

Literature Review and Theoretical Framework

This study draws on the theoretical framework proposed by Semba and Tang (1999) to explore the intricate relationship between malnutrition and HIV. This relationship is characterised by a vicious cycle of micronutrient deficiencies and human immunodeficiency virus (HIV) (Semba & Tang, 1999). As elucidated by Semba and Tang (1999), comprehending the reciprocal impact of malnutrition and HIV is essential in understanding the critical interplay between food, nutrition and the progression of the virus (Arief & Absori, 2018; Tang, 1996). The chosen theory aligns with the research focus, centred on gaining a comprehensive understanding of the impact of both concepts on nutritional interventions within antiretroviral therapy (ART). These interventions aim

to address malnutrition through supplements and initiatives aimed at enhancing food access for individuals affected by HIV/AIDS. The connection between food, nutrition and HIV/AIDS is profound, with malnutrition influencing the replication and progression of HIV. Conversely, HIV infection suppresses the immune system, potentially exacerbating morbidity. This intricate relationship underscores the pivotal role of nutritional interventions in the fight against HIV/AIDS (Semba & Tang, 1999). The theory proved valuable in eliciting comprehensive responses from participants regarding the integration of nutrition within antiretroviral therapy (ART) and addressing malnutrition through supplements. Notably, these interventions focus on improving food access for individuals affected by HIV/AIDS.

The theory provided the needed guidance for the researchers to explore the research questions in a way to gain an overarching understanding of issues facing the participants, especially regarding their insufficient dietary intake, where loss of appetite and painful swallowing are common in HIV-associated infections. The investigators also sought to know if a lack of access to support could lead to reduced food intake, contributing to weight loss, fatigue and compromised energy levels (Nieuwenhuizen *et al*., 2010; Ochner *et al*., 2013; Semba & Tang, 1999). Through the theory, the researchers were able to deepen their understanding of the associated illness or issues on people living with HIV due to a lack of ability to absorb vital nutrients, necessitating protein and vitamin-rich diets to mitigate complications. Some of the issues or illnesses mentioned by the participants during the interview centred on impaired storage and altered metabolism, affected by compromised liver function, underscore the importance of optimal nutrition, including micronutrient supplements, in supporting the health of women living with HIV and AIDS. Micronutrient deficiencies compromise immune function, emphasising the need for supplementation-especially vitamin A, zinc and vitamin D-to fortify the immune system. The insight from the theory further underscores the link between increased HIV replication, progression of disease and heightened morbidity due to deficiencies in certain micronutrients. Adequate zinc levels during antenatal care are highlighted to prevent disease progression and protect against HIV transmission. Ensuring food security for women living with HIV and AIDS at all life stages becomes imperative to minimise replication, progression of disease and associated morbidity.

The theoretical framework by Semba and Tang (1999) was not without its criticisms or weaknesses. One weakness of the theory was that it might not comprehensively address potential confounding factors or alternative explanations for the observed associations between micronutrient deficiencies and adverse clinical outcomes in HIV-infected individuals (Bendich & Deckelbaum, 2001; Maertens, 2011; Ringson, 2024). The theory may not thoroughly explore the complexities of nutritional status, including dietary habits, socioeconomic factors and other comorbidities that could influence both micronutrient levels and HIV progression (Maertens, 2011). It was also acknowledged that the strength of the evidence supporting the theoretical framework on the effectiveness of micronutrient supplementation in reducing morbidity and mortality during HIV infection was not substantially addressed in the theory. However, the theoretical framework was comprehensive in providing a foundational understanding for investigating the impact of antiretroviral therapy programs on food and nutrition security among women in the Mufakose high-density suburb. It helped to identify and understand the implications of the symptoms of micronutrient deficiencies in individuals with human immunodeficiency virus (HIV) infection. The theory informed the researchers of the role in the pathogenesis of HIV infection by contributing to increased oxidative stress and

compromised immunity. It suggests that low levels or intakes of specific micronutrients, such as vitamins A, E, B6 and B12, as well as Zn and Se, have been associated with adverse clinical outcomes during HIV infection. Additionally, the theory introduces the idea that micronutrient supplementation could potentially help reduce morbidity and mortality in individuals with HIV infection.

2. Methodology and Research Design

The study explored a qualitative approach design to understand the complexities of human behaviour, experiences and social phenomena (Creswell & Poth, 2016). Unlike quantitative methods that focus on numerical data and statistical analysis, qualitative research delves into the richness and depth of human perspectives through non-numeric information (Snelson, 2016). The research qualitative approach encompasses vital components such as research design, instruments, targeted population, sampling procedures, data collection and ethical considerations. The research design was a case study because it provided specific guidance for research procedures (Creswell, 2014; Denzin & Lincoln, 2011; Levitt *et al*., 2018). The study recognises the diverse and subjective nature of individual perspectives and experiences in understanding the intricate relationship between food insecurity and HIV/AIDS.

Research Design

The choice of a case study design was driven by its efficacy in gathering substantial data (Flick, 2004; Roller & Lavrakas, 2015). In the study, interview guides served as primary sources of evidence and data collection tools (Worthington, 2013). The research was conducted in the Mufakose urban community in Harare, Zimbabwe. Qualitative tools, mainly in-depth interviews, were utilised with purposively selected health personnel managers at the Mufakose local clinic. Sample interviews were conducted with conveniently selected healthcare workers, including registered general nurses, midwives, women living with HIV and AIDS and community health volunteers. Additionally, a representative from funding organisations such as the Global Fund and Care International in Harare was interviewed (Worthington, 2013). The study's data collection was bounded by time and activity, facilitating a detailed examination and cross-checking of responses collected from participants over an extended period.

Data Collection and Participants

The study was conducted in the Mufakose urban community in Harare, Zimbabwe, focusing on HIV-positive women aged 15 to 49 residing in this community between 2015-2017 who were initiated on antiretroviral therapy (ART). A qualitative approach was employed, utilising semi-structured focus group discussions and key informant interviews with women living with HIV and AIDS. Thematic analysis and manual coding techniques were applied to interpret and organise the data. Purposive sampling was used for key informant interviews to gather knowledge, while convenient sampling was employed for availability and willingness. Twenty (20) key informant interviews were conducted, with guided questions aimed at eliciting responses from participants, focusing on household food security. Three of the questions centred on the domain of food access, anxiety about household food supply and insufficient food intake and its consequences.

Data Presentation, Analysis and Ethical Considerations

Data analysis was meticulously read and manually coded, enabling a nuanced understanding of participants' perspectives. Thematic grouping aided in the interpretation of responses, contributing to a comprehensive analysis of the study's findings. Ethical considerations were paramount throughout the study. Permission was obtained from the Ministry of Health and Child Welfare for research at Mufakose Polyclinic. Informed consent was sought from all participants, including women living with HIV and AIDS, community health workers, registered nurses and the district nursing officer. Participants were given the freedom to withdraw from the study at any point if concerns about integrity and confidentiality arose. The entire research process adhered to ethical standards for studies involving human subjects.

3. Findings and Discussion

The context

During the data collection phase, researchers conducted five focus group discussions with participants. The cohort primarily comprised women living with HIV and AIDS, segmented into age groups: 15-19, 20-24, 25-29, 30-34 and 35-49. Additionally, key informant interviews were conducted involving a district nursing officer from the Ministry of Health and Child Welfare, a representative from the Global Fund, three nurses from the opportunistic infections department at Mufakose Poly Clinic and three community healthcare workers.

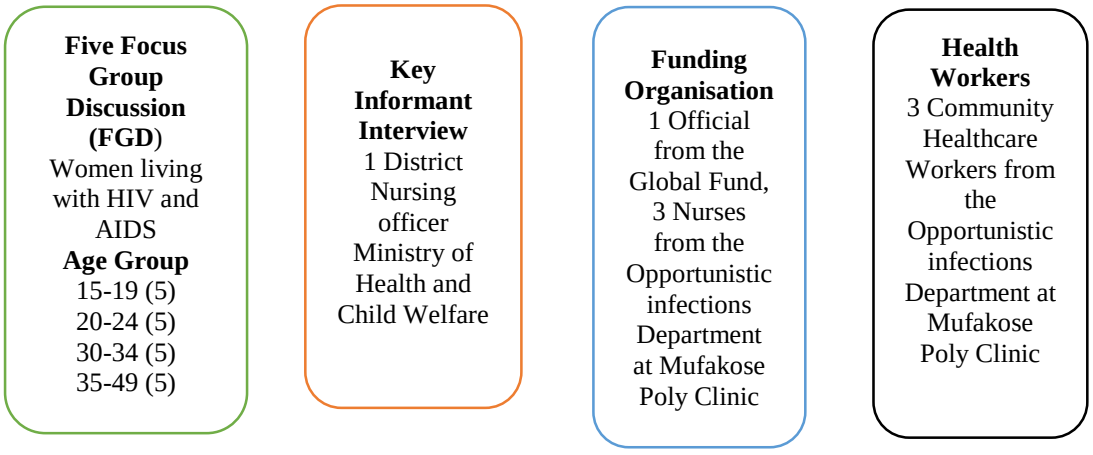

Figure 1. Cohort of the participants interviewed for the study

Data Analysis and Discussion of Findings

The data collected were analysed to comprehend the impact of food insecurity among women affected by HIV and AIDS in the high-density suburbs of Mufakose, Zimbabwe. The discussion of the study findings was guided by the two research questions, aligning with the responses gleaned from the analysed data. The emerging theme focused on the impact of care and support for women living with HIV and AIDS on ART, particularly concerning food security. The second theme addressed the virus's spread because of insufficient support arising from unethical practices in distributing food supplies to women living with HIV and AIDS on ART at the household level.

Care and Support

The results obtained from the in-depth interviews regarding the care and support provided at the household level aligned with the outcomes of the Focus Group Discussions (FGD) and Key Informant Interviews. These collective findings indicated that only a limited number of women living with HIV and AIDS on ART received food assistance from local aid initiatives. Notably, this assistance was funded by organisations such as the Red Cross and Red Crescent, along with the Shelter Trust, which specifically targeted single mothers, particularly those in the 15 to 19 age cohort. The response of the participant in the age cohort of 34-49 in the FGD informed the level of frustration of the other women in that cohort when she said:

> *It is more of empty promises by government officials who always promise food aid and nutrition aid programs, but to no avail against the laid down by the international World Health Organisation (WHO) that the government must assist people living with HIV and AIDS in food access to the extent possible (34-49 Cohort)*

The findings are opposed to what is laid down by WHO (Gebremichael *et al*., 2018; Organization, 2015a) that the government must assist people living with HIV and AIDS in food access to the extent possible (Chop *et al*., 2017). A few other studies on the issue of care and support regarding the nutrition of individuals with HIV/AIDS affirmed the lack of support experienced by people in this category (Organization, 2016). Hence, it is evident that women living with HIV and AIDS lack sufficient support in terms of food security (Schenk *et al*., 2020). The implications of inadequate assistance in accessing food or delayed support seems lead to non-adherence to treatment, leading to infections and ultimately, deaths (Iacob *et al*., 2017; Maharaj, 2019; Organization, 2016). Taking into consideration the national emergency status conferred upon HIV and AIDS, there is an implicit expectation for the government and other stakeholders to address and resolve the persisting challenges that compel women to undergo treatment while grappling with food security issues.

According to the participants, the mere distribution of food handouts does not fulfil the broader objective of ensuring food security; instead, it should be part of a comprehensive program designed to sustain livelihoods, as mandated by the government. The overarching understanding from the analysed data revealed that participants require more support than receiving food aid in cash. One participant from the 30-35 cohort captured the entire submission of the women in her submission when she said:

> *The government should initiate sustainable projects for them. They agreed that the government had pledged to commence such projects for urban women on ART as a means of supplementing food security. However, implementation has thus far been limited to rural areas (30-35 Cohort).*

Another noteworthy issue is that most women who received food handouts are not part of the ART group with HIV/AIDS status; instead, they are pregnant women with no health status other than being pregnant. Responses from participants during the FGD and interview sessions across the age cohorts of 15-19, 20-24 and 30-34 revealed that it was noted that even those who benefited from the food handout only received the allocation for a month. A participant in the 15-19 age group expressed this clearly:

> *We were only given the food handouts in the first two weeks of initiation as a support measure for starters of ART to adhere, but after a month, there was no food aid… we received ART only, of which they said the treatment is powerful because the medication needs to be taken with enough food…we were given some instructions or lessons before initiation on how to take the treatment and as well as how to take care of us, but were not given any support on how to meet the balanced diet as the requirement to go with the ART as a lifelong treatment (participant 15-19 Cohort).*

The older women in the cohort aged 35 and above, during the FGD, highlighted that there is no care or support provided for them. Despite being less expected to give birth, they face a high level of food insecurity, with many of them caring for orphans within their households. They explained that sometimes, ART is not adequately supplied and they resort to seeking resupply from other centers. When there is a donation, the food aid is distributed to those known to the community health workers, who compile registers of individuals in need of food aid due to HIV and AIDS within their community. The position of the District Nursing Officer (DNO) reaffirmed the issue of lack of support.

> *Most women do not come for resupply of ART early because they said they will be running up and down in search of food for the family and themselves as well.. Most lactating mothers present themselves at the centres with malnourished babies, as they say not much is within their household in terms of food andbalanced diet (participant DNO).*

The discussion was consistent with (Chimbera, 2017; Muchabaiwa & Mbonigaba, 2021), who observed that individuals may struggle to adhere to treatment due to a lack of food and nutrition security within households, potentially leading to drug resistance among those infected with HIV and AIDS. This notion is reiterated by international organisations and well documented in the body of literature (Crush *et al*., 2011; Ivers *et al*., 2009; Mabiso *et al*., 2014), which highlights that HIV and AIDS severely impact access to food.

Consequences and Unethical Practices

The District Nursing Officer's (DNO) response also aligned with the information provided by the nurses at the Opportunistic Infections Department (OID), stating that women often default on ART treatment, citing food insecurity as a reason. They emphasised that cases of opportunistic infections are increasing in the community, attributed in part to illicit sexual practices driven by the desperate need for food. Many of these women, particularly those below the age of 30, require support in food security, as evident from their engagements in activities aimed at sustaining their households. The findings from both FGDs and in-depth interviews revealed that one clinic in the area is insufficient for the suburb. Women, when seeking resupply, experience extended waiting times for ART medication, often being assigned the exact collection dates. Some interviewees mentioned skipping months due to long queues at the health centre, a sentiment echoed by respondents, especially those in the 30 to 49 age cohort. Despite some respondents expressing concerns about long distances, the primary cause of non-

adherence to ART appears to be the lack of timely resupply for these women. The concern of DNO is captured below:

> *Among those who are on ART…. lack of a good balanced diet made women default. It is very concerning that women spend more hours trying to find food to put on the table for the family from morning till midday. However, they are required to take the ART in time every day… and you expect them to adhere to treatment when there is a lack of food nutrition security within households which may later cause drug resistance among those infected with HIV and AIDS. (Participant DNO)*

More revealing in the study is the fact that some participants' children had dropped out of school to support their mothers by engaging in street vending. The notion of children leaving school to contribute to household income had severe consequences, especially for girls, who sometimes faced abuse from older men in exchange for food. Additionally, some girls opted for early marriages to alleviate the burdens within their households. The DNO well captured this position,

> *Most of the people on ART had no choice but to encourage their children to drop out of school contributes to high infection rates, particularly among girls aged 15 to 19, as evidenced by the increased incidents of new infections in this cohort (Participant DNO).*

The study has significantly deepened the understanding of the issues and the impact of food and nutrition security at the household level for women living with HIV and AIDS in Mufakose high-density suburbs. The nature of the difficulties encountered by the women revealed that they were not passive recipients of their fate but rather active actors who demonstrated agency in navigating barriers (Nhunzvi, 2021). Taking up various tasks to survive, (Nnaeme *et al*., 2020), such as seeking assistance from neighbours, relatives and friends; engaging in urban agriculture and market gardening; contributing to household chores in the community; participating in fruit and vegetable vending; collecting plastics and cans for recycling; engaging in transactional sex and selling household assets, serves as a clear indication that women living with HIV/AIDS are merely surviving rather than living.

4. Conclusion and Recommendations

The study has shown that women living with HIV and AIDS face a plethora of challenges in terms of food insecurity and antiretroviral therapy. This has led to non-adherence for many of them. Most of the women fail to get adequate food and a consistent supply of ARV. The absence of treatment results in the progression of the disease, leading to apparent effects of immunodeficiency through opportunistic infections and a noticeable impact on productivity. The problem is likely to persist as long as the government cannot provide a consistent supply of drugs and sufficient nutritional support to people living with HIV and AIDS until they can support themselves. Once a patient starts receiving adequate treatment, productivity can be restored or maintained along with health. If treatment is successfully sustained, HIV does not progress into AIDS and the infected

individual can live a productive life for an extended period as HIV becomes a chronic but manageable condition.

A few recommendations that emerged from the study include the following: the government should establish an empowerment scheme led by a woman on ART to ensure that women living with HIV and AIDS are empowered to produce their food, promoting food security. Additionally, there is a need for the government to overhaul the existing legal and policy frameworks on universal access to healthcare in Zimbabwe to accommodate the needs of people living with HIV and AIDS, as well as the public, without any discrimination. This involves demystifying the stigma around people living with HIV and AIDS in the community.

The study also recommends taking a holistic approach to support women living with HIV and AIDS, both medically and nutritionally, without political or undue interference. It encourages public healthcare staff to adhere to their professional ethical codes. Furthermore, the study suggests exploring ways to enable policymakers and government officials to adopt a factual and non-stereotypical tone in supporting people living with HIV and AIDS.

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