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Experiences of Mothers on the Utilization of Elimination of Mother to Child Transmission of HIV Services at Mtendere Clinic, Lusaka

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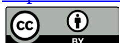
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Abstract

Introduction: Acquired immunodeficiency syndrome is one of the leading causes of mortality among women of reproductive age and Mother to Child Transmission of Human immunodeficiency virus is still a challenge affecting many countries. Globally, an estimation of 180,000 children under 15 years acquire the Human immunodeficiency virus every day, and more than 90% of those infections are due to Mother to Child Transmission. The study sought to explore the experiences of mothers on the Elimination of Mother to Child Transmission-HIV services at Mtendere Clinic, Lusaka. **Materials and Methods:** Qualitative interpretive phenomenology study design was employed using in-depth interviews to collect data from a sample that was selected using purposive sampling technique. Thirteen participants were recruited, and these were HIV-positive mothers at least between the ages of 15 and 49 years and enrolled in the Elimination of Mother To Child Transmission-HIV program. The in-depth interviews were audiotape recorded and transcribed verbatim. Data was analyzed using thematic method. **Findings:** Three main themes that emerged are; living with HIV, support system and barriers to utilization of Elimination of Mother To Child Transmission-HIV services. Most of the participants expressed having acquired knowledge from the program, and received counselling and support from spouses, family as well as health personnel at Mtendere health facility which culminated into a positive experience and enhanced their uptake of the Elimination of Mother to Child Transmission-HIV services. However, barriers to service utilization were identified and these included fear of stigma, negative attitudes from health workers, long waiting times, lack of support and lack of transport to

the health facility. **Conclusion:** Interventions such as community awareness campaigns on Elimination of Mother To Child Transmission-HIV, male involvement and implementing mother-to-mother peer support strategies in Elimination of Mother To Child Transmission-HIV service utilization should be prioritized so as to alleviate stigma and enhancing a positive experience for these mothers thus reducing on the Mother to Child HIV Transmission burden and mortality rates.

Keywords

Elimination of Mother-to-Child Transmission, Experiences, Barriers, Utilization, HIV/AIDS

1. Introduction

Mother-to-Child Transmission (MTCT) occurs when Human Immunodeficiency Virus (HIV) is transmitted from an infected mother to her baby through the placenta during pregnancy or through blood contamination during childbirth or breastfeeding after birth [1]. MTCT of HIV remains a significant challenge affecting many countries worldwide. In 2021, approximately 38 million people globally were living with HIV, with 1.8 million newly infected [2]. HIV and acquired immunodeficiency syndrome (AIDS) are among the leading causes of mortality among women of reproductive age. Globally, an estimated 180,000 children under 15 years acquire HIV every day, with over 90% of these infections attributed to MTCT and notably, 90% of MTCT of HIV occurs in Sub-Saharan Africa (SSA) [3].

Without Prevention of Mother-to-Child Transmission (PMTCT), it is reported that 15% - 30% of babies born to HIV-positive women become infected during pregnancy and delivery, with a further 5% - 20% acquiring the virus through breastfeeding [4]. Elimination of Mother-to-Child Transmission (EMTCT) programs provide a range of services for women of reproductive age living with or at risk of HIV to maintain their health and prevent their infants from acquiring HIV. EMTCT programs have become crucial interventions in preventing HIV transmission among infants. The aim of EMTCT programs is to reduce the spread of HIV from mothers to their babies; however, these programs face several challenges, including the loss of follow-up of exposed infants. For example, a study in Nigeria conducted by Rawizza *et al.* [5] observed that out of 31,504 women attending EMTCT care during the antenatal period, only 60% (20,679) completed the program.

Various factors, such as cultural, economic, and psychological aspects, create barriers for HIV-infected women to fully participate in EMTCT programs [6]. These factors include lack of knowledge regarding EMTCT, perception of health workers as authoritative figures, intent on shortening the life of the infant, fear of disclosure of their own and the child's status, negative attitudes of health

workers, lack of male partner support, stigma, poor maternal postpartum adherence, intimate partner violence, and fear of knowing the child's status, all of which shape the mother's experiences. Similarly, mothers seeking EMTCT services have reported diverse experiences, some of which hinder their full participation in MTCT programs [7]. Although this topic has been examined worldwide, little is known about the experiences of mothers seeking EMTCT services at Mtendere Clinic. This study aimed to understand the experiences of mothers in the EMTCT program to identify best practices and provide recommendations for maximizing the retention of these mothers in the EMTCT program.

2. Materials and Methods

2.1. Study Design, Time Frame, Setting and Participants

The study employed a qualitative interpretative phenomenology study design to explore the lived experiences, perceived barriers, and facilitators to the uptake of PMTCT of HIV services by HIV-positive mothers at Mtendere Clinic located in Lusaka district, serving a population of 92,152 individuals. The study spanned from February 2023 to January 2024, encompassing the entire research process from the initial development of the research proposal to the final stages of report writing and dissemination. Thirteen participants, who were HIV-positive mothers actively engaged in the EMTCT program at Mtendere Clinic, were purposefully selected for this study. The selection process adhered to the principle of data saturation, a fundamental aspect of qualitative research methodology. Data saturation was deemed to have been reached when no new insights or perspectives emerged from subsequent interviews, indicating a comprehensive understanding of the phenomenon under investigation. While the sample size of thirteen participants may appear relatively small, it aligns with the qualitative research approach focused on depth rather than breadth. Moreover, qualitative studies often prioritize in-depth exploration of individual experiences and perspectives, which can be adequately captured within smaller sample sizes. Purposive sampling was used to select HIV-positive mothers aged between 15 and 49 years enrolled in the EMTCT program at Mtendere Clinic, ensuring detailed opinions and experiences from mothers who lived the experience. The inclusion criteria comprised HIV-positive mothers aged between 15 and 49 years and women enrolled in the EMTCT program. Exclusion criteria included mothers enrolled in the EMTCT program during the current period but unable to be interviewed due to physical instability and those not willing to participate.

2.2. Data Collection Procedure

Ethical approval was obtained from the University of Zambia Biomedical Research Ethics Committee (UNZABREC) under reference number 3380-2022, and a certificate for researcher recognition was obtained from the National Health Research Authority (NHRA) under reference number NHRAR-R-1212/12/10/2022. Following the explanation of the participant information sheet and

obtaining consent, data were collected from the mothers through face-to-face interviews held in a private room at Mtendere Clinic. Confidentiality and anonymity were maintained throughout the study, and participants were given the freedom to withdraw at any time without facing negative consequences. A counselor was present during the interviews to offer support due to the potential psychological and emotional impact of the study on participants. An audio recorder and observation notes were used to collect data while ensuring participant privacy and safety.

2.3. Data Collection Tool

To data collection, an in-depth semi-structured interview guide was used. It comprised open-ended questions with participants' characteristics under Part I, questions on lived experiences under Part II, and questions on perceived personal and health system barriers to the Uptake of EMTCT-HIV under Part III. The in-depth semi-structured interview schedule that was utilized is attached in Appendix 1 of this study.

2.4. Data Analysis

Following the completion of the interviews, each tape-recorded session was transcribed verbatim to ensure an accurate representation of participants' responses. The transcriptions, along with field notes, underwent multiple rounds of readings to immerse the researcher in the data. Additionally, the researcher listened to the audio recordings repeatedly to capture nuances in participants' voices and expressions. The next step involved meticulous data organization and coding using NVIVO (version 10), a qualitative data analysis software. This facilitated the systematic organization of data and ensured consistency in the coding process. Thematic analysis, a robust qualitative analysis method, was employed to identify patterns and themes within the data. Initially, an inductive approach was used to allow themes to emerge directly from the data, enhancing the richness and depth of analysis. Codes were applied to meaningful units of data, capturing key concepts and ideas expressed by participants. Similar codes were then grouped into categories, facilitating the organization of data into coherent themes. To increase transparency and methodological rigor, several strategies were implemented. Firstly, the research process was documented meticulously, detailing each step from data collection to analysis. This documentation provided an audit trail, allowing for transparency and reproducibility of the study's findings. Secondly, the researcher engaged in reflexivity, continuously reflecting on their own biases and assumptions throughout the research process. This self-awareness helped mitigate potential biases and ensure an objective analysis of the data. Furthermore, to enhance the credibility and trustworthiness of the findings, member checking was conducted. This involved sharing preliminary findings with participants to validate the accuracy and interpretation of their responses. Feedback from participants was incorporated into the final analysis,

ensuring that their perspectives were accurately represented. Finally, to ensure the reliability of the findings, inter-coder reliability checks were conducted. This involved independent coding of a subset of data by multiple coders to assess consistency and agreement in coding decisions. Any discrepancies were resolved through discussion and consensus among the research team.

3. Results

Three major themes emerged from the study. The first theme explores living with HIV and the sub-themes were psychological and emotional experiences, acquisition of knowledge about EMTCT-HIV and Changes in personal life. The second theme discusses the support system, and the sub-themes were supported from spouse, support from the health facility and support from family. The third theme discusses the barriers to EMTCT service utilization and the sub themes included health system barriers and personal perceived barriers. The key statements from the participants led to the generation of sub-themes and the sub themes were merged to generate the main themes as shown in Table 1.

Table 1. Major themes, sub-themes and key statements from the participants.

Major theme	*Sub-theme*	*Key statement*
Living with HIV	1) Psychological and emotional experience 2) Acquisition of knowledge about EMTCT-HIV 3) Changes in personal life	• *I was sad and I started thinking about the possibilities of having a normal child.* • *The nurses taught us about EMTCT, they told us that if you do not take the medicine the child can get infected.* • *People have kept a distance from me and this has affected my life, I was mostly focusing on these issues such that my business was almost crumbling.*
Support system	1) Support from spouse 2) Support from the health facility 3) Support from family	• *He reminds me to give the medication to the child and also on the dates to go for reviews and refills for medication.* • *I get to meet people at the facility who are also on the same treatment for EMTCT I draw courage from their stories most of the time.* • *My brother and sister are equally supportive, and they encourage me so much.*
Barriers to EMTCT service utilization	1) Health system barriers 2) Personal perceived barriers	• *The nurse and social workers were so harsh that day that it was my fault that I am HIV-positive.* • *Sometimes you have to wait the whole day for them to attend to you.* • *I have been hiding my HIV status from my husband because I fear him divorcing me.*" • *There is usually criticism from my sisters, and they do not support.* • *Sometimes I miss the clinic because I do not have transport money, this is because I stay very far away.*

3.1. Demographic Characteristics

Face-to-face in-depth interviews were conducted with Thirteen participants who were HIV-positive mothers and expectant mothers enrolled in the EMTCT-HIV program at Mtendere clinic. The participants' ages ranged from 20 to 37, most of them had attained a secondary education, and the majority were not in formal employment. Almost all of the participants (10) were married, although two were separated and one was single. In addition, the majority of women (8) were self-employed, while the rest were housewives. Four of the participants had never had children, two had one child each, and seven had at least two children. All the participants were Christians. The socio-demographic characteristics have been summarized as shown in **Table 2**.

3.2. Theme 1: Living with HIV

Psychological and Emotional Experiences

Participants in this study expressed encountering distinct thoughts and emotions. Negative thoughts were ruminating in the minds of the participants. Most of them were concerned about the possibilities of survival and safety of their unborn child, especially those who had tested positive during their first pregnancy. The majority of the thoughts concerned survival or death from HIV. Many individuals stated that they first struggled to accept their condition initially and some reported that their husbands had difficulty understanding their condition. Many reported that they felt as though everyone was staring at them on the streets and that everyone knew about their illness, which made them feel extremely uncomfortable. This culminated into feelings of sadness, emotional distress, fear and anger as shown in the participants' statements below:

P5. "*I did not receive the news very well, I was sad and I started thinking about the possibility of having a normal child. this got to me very much and I asked myself a lot of questions. Will I be able to have more children? Will I survive this disease or maybe it's the end of me? Will my child survive? What will people think about me? and how will I tell my husband?*"

Table 2. Socio-demographic characteristics of the participants.

Characteristic	Description
Number of Participants	13
Age Range	20 - 37 years old
Education	Most participants had attained a secondary education
Occupation	Majority were self-employed (8), while the rest were housewives
Marital Status	10 participants were married, 2 were separated, and 1 was single
Number of Children	4 participants had no children, 2 had one child each, and 7 had at least two children
Religion	All participants identified as Christians

*P*1. "*I felt very bad about my condition when I was found to be positive, I felt I could not be able to tell others about my condition, maybe my husband was not going to love me the way he does. I felt people started mistreating me at home they even started becoming distant and stopped using my things because they felt I could infect them. This was a sad experience*"

*P*3. "*Sometimes I felt like everyone was looking at me when going in the road, it is as if everyone knows my condition and this made me feel bad. I had to keep myself away from the people*".

*P*9. "*I felt bad… I thought I was going to die and I also thought people were going to be laughing at me. I went home and I cried, I told my husband see what you have done*".

Acquisition of Knowledge about EMTCT-HIV

Practically, all of the participants had acquired some knowledge of EMTCT-HIV. Consequently, they were able to describe HIV and the primary function of EMTCT. In addition, they were able to state the various ways in which the child could become infected with the virus as shown in the statements below.

*P*10 "*The nurses teach us about EMTCT, they told us that if you do not take the medicine the child can get infected*".

*P*1 "*EMTCT is mostly about how the child can be protected from being infected. I was told to take the medicine, a virus can infect the child if being breastfed while with cracks on the nipples, the virus can also infect the child during the birthing process where blood can mix up with that of the mother when the nurses do not handle the process very well*".

*P*11 "*This EMTCT program is beyond HIV prevention to the child, it is a clinic that helps in a lot of ways including cervical cancer, and tuberculosis tests are done in this clinic*".

Changes in Personal Life

Participants have expressed that living with HIV and participating in the EMTCT program came with its own problems that caused changes in their personal lives The modifications included a change in lifestyle, relationships, and self-worth as shown in the participants statements below.

*P*11 "*I felt very bad because I will be taking the medicines every day, and I have to be giving my child medication every time to prevent the infection.*"

*P*1 "*This has affected my personal life so much and I do not interact much with my friends, sometimes I feel bad about coming to get the medication for me to prevent my child from the infection. I live in fear maybe my friends can see me when I go to the clinic and this does not give me the confidence to relate with them*"

*P*3 "*My business went down I was more focused thinking about my children, how they were going to survive without me? I thought I was going to die. These thoughts preoccupied my mind and made me lose focus on my business, I was mostly focusing on these issues such that my business was almost crumbling*".

*P*8 "*I had to be careful with this particular child, there has been* a *great change about how I have been raising my children I have to watch the diet, and I am*

more careful".

3.3. Theme 2: Support System

Support from the Spouse

Most participants in the study expressed that they received help from their spouses, whereas the others indicated that they did not obtain the necessary support. In the beginning, the majority of women's spouses did not agree to their requirements and did not provide them with the necessary support, but as time went on, many husbands were able to support their wives in the EMTCT-HIV program. This was expressed in the participants statements below.

*P*8 "*He encourages me a lot, he asks me to take the medication, sometimes reminds me about the timing and we usually take the medication together. Sometimes he reminds me to give the medication to the child and also on the dates to go for reviews and refills for medication*".

*P*3 "*I talked to my husband about this condition, at first my husband stopped talking to me for a week but bit by bit he started talking to me and now gives me the needed support*".

*P*6 "*He sends the money to support the child, sometimes I need to buy the needed food for the child and other needs*".

Support from Family

Most of the participants who revealed their status to their family members reported receiving enough support required to navigate the complexities of living with HIV and being enrolled in the EMTCT-HIV program. This was expressed in the participants' statements below.

*P*8 "*I disclosed this to my brother and sister they are equally supportive, and they encourage me so much* "

*P*12 "*They treat me very well; they do not go about talking behind my back*".

*P*5 "*My family members are very supportive in that they give me all the necessary money required for my transportation to the clinic for the EMTCT program, this has really given me the confidence to continue with the program*"

Support from the Health Facility

Participants in the study expressed that they received support from the health facility which helped them during the EMTCT-HIV program as shown in the participants' statements below.

*P*6 "*I receive a lot of support from the health facility, they teach me about how I need to continue taking the medicine, and eat proper meals as this will protect my child from getting the infection*".

*P*5 "*Sometimes I get to meet people at the facility who are also on the same treatment for EMTCT, I draw courage from their stories most of the time, here people can encourage you with their stories*".

3.4. Theme 3: Barriers to EMTCT Service Utilization

Health System Barriers to EMTCT Service Utilization

Participants expressed experiencing several health system-related barriers that prevented them from making efficient use of the services provided at the clinic. These health system-related barriers included inadequate treatment from the health workers and extended waiting times, as shown in the participants' statements below.

*P*10 "*I was not pleased the first day I came to register for the EMTCT program in this facility because the nurse and social workers were so harsh that day like it was my fault that I am HIV-positive…As a result, I attempted to stop coming for EMTCT program.*"

*P*6 "*Sometimes you have to wait the whole day for them to attend to you*"

Perceived Personal Barriers to EMTCT Service Utilization.

Participants in the study also expressed their perceived personal barriers to the utilization of EMTCT services. These included a fear of stigmatization, lack of transport to the health facility and a lack of support from some family members as shown in the participants' statements below.

*P*1 "*I felt people started mistreating me, people home had to separate their things from mine because they felt I was going to infect them, as such I could not disclose my status to others…sometimes I feel bad about coming to get the medication for me to prevent my child from contracting the virus*".

*P*5 "*I stay very far, and I face challenges with transport sometimes I don't have money for bus fare so I would walk for two hours on average to reach the health facility.*"

*P*6 "*We told you in the beginning that you were going to get sick, and this sickness could affect your child, we told you now see what is happening. There is usually criticism from my sisters, and they do not offer support*".

4. Discussion

This study explored the experiences of HIV-positive mothers on the utilization of EMTCT-HIV services at Mtendere Clinic in Lusaka, Zambia. The discussion is focused on the main themes that have arose from the findings and the findings of other researchers and conclusions have been made were necessary. The main themes are; living with HIV, support system and barriers to the utilization of EMTCT services.

4.1. Living with HIV

The emotional and psychological experiences of women living with HIV in relation to the utilization of EMTCT services have been found to be mainly negative. They mainly expressed feelings of sadness and worry, especially concerning the prospect of having a healthy child and worries about their own survival. Anxieties about societal perceptions and how to disclose their status to their partners are also prevalent. In addition to emotional challenges, some participants feel self-conscious in public, believing that others are aware of their condition, leading to discomfort and isolation. Several studies, including Lumbantoruan *et al.*

[8], Ashaba *et al.* [9], and Fagbamigbe and Idemudia [10], have also found negative feelings and thoughts being experienced among pregnant women with HIV. Dirisu *et al.* [11] identify depression, fear of stigma, and low male partner involvement as obstacles to using EMTCT services, following a model by Turan and Nyblade [12] linking psychosocial implications to behavioral consequences. In contrast, Mustapha *et al.* [13] found positive experiences among HIV-positive mothers, with optimal EMTCT service utilization. In addition, Dovel *et al.* [14] and Wanyenze *et al.* [15] reported improved experiences in Malawi and Uganda, respectively. Discrepancies are attributed to sample heterogeneity and variations in research settings, emphasizing the need for longitudinal studies at Mtendere Clinic to understand changes in emotional experiences. The importance of comprehensive support systems, including counseling, education, and interventions should not be ignored to address the emotional and psychological well-being of these women as well as reduce HIV-related stigma.

Many women living with HIV and enrolled in the EMTCT program gained knowledge about the disease as some were able to define EMTCT and explain how infants could contract the virus. This is consistent with the findings of several other previous investigations in which mothers had acquired general knowledge of EMTCT through the program [16] [17] [18]. However, knowledge gaps may result from inefficient counseling and health education services [19]. Lack of understanding impacts the use of EMTCT-ANC services, as demonstrated by Kalembo and Zgambo [20]. Contrasting findings by Nwabueze *et al.* [21] and Kibao [22] show varying knowledge levels among HIV-positive women, suggesting the need for targeted Information and Communication Education [IEC] to bridge knowledge gaps.

The women's lifestyles, relationships, and self-worth changed due to their HIV status. Silva *et al.* [23], Lingen-Stallard *et al.*, [24]; Kelly *et al.*, [25] also found similar alterations, including family abandonment, social isolation, doubts about self-worth and personal changes. In contrast, Contreras *et al.* [26] reported positive changes among Peruvian women living with HIV, emphasizing acceptance and empowerment through engagement in EMTCT programs. Differences may be attributed to participant characteristics and time elapsed since diagnosis. These findings entail the importance of providing timely psychological, social, and practical support for women diagnosed with HIV during pregnancy to better their lived experiences of living with the disease.

4.2. Support System

Most women reported receiving support from their spouses over time, although a minority disclosed not receiving support even after revealing their HIV-positive status. Shroufil *et al.* [27] emphasized the positive impact of partner disclosure on spousal support and adherence to EMTCT protocols. Haile and Brhan [28] found similar results with increased male partner participation in ANC/EMTCT adding to heightened awareness of VCT services. Ebuy *et al.*, [29] also found

most of the women received support from their spouses such as supporting the wives financially, reminding them to take drugs and to go for antenatal visits and attending ANC with the wives. Conversely, studies in Kampala and the Mable area of Uganda reported low male participation in PMTCT programs, highlighting inadequate spousal support [30] [31]. Kalembo and Zgambo [20] also noted low male involvement in Malawi, attributing it to cultural variations affecting spousal support. Tavory and Swidler [32] underscored cultural hindrances in Malawian society, suggesting that cultural congruence is vital for involving spouses in EMTCT programs. Therefore, ensuring cultural sensitivity in care at Mtendere Clinic is essential for effective involvement and support from spouses of women enrolled in the EMTCT program.

Women who disclosed their HIV-positive status to family members reported substantial support, especially from siblings. Tambunan and Sarumpaet [33] and Abebe *et al.* [34] found similar positive family support outcomes. Family support significantly influenced the likelihood of taking an HIV test and adhering to EMTCT protocols as supported by findings of Abebe *et al.* [34]. Halim [35] highlighted the role of family support in ANC services, while Isni [36] pointed out the fear of stigma within families. It is recommended that healthcare professionals advocate for women to disclose their status, as this may result in increased support [37]. Additionally, efforts should be made to discourage factors that may impede disclosure, such as stigma. This can be achieved through education initiatives aimed at families and communities, highlighting the importance of EMTCT services.

Mothers in the study received various forms of support from healthcare institutions, including psychological, treatment adherence, peer, and breastfeeding support. Emotional challenges related to HIV transmission to offspring were addressed through empathetic care and counseling. Mukose *et al.* [38] noted challenges in healthcare professional training which often impede the ongoing support required for the mothers enrolled in the EMTCT program. However, several of the healthcare professionals who had already received training lacked refresher training to be able to offer support to the mothers who were receiving PMTCT services. Consequently, it is imperative that healthcare professionals at Mtendere clinic persist in providing adequate adherence support, as it constitutes a crucial element in the battle against HIV. Peer support has also been recognized as beneficial in a similar study by Phiri *et al.*, [39] as it provided a platform for shared experiences and encouragement among HIV-positive pregnant women. According to Akinde *et al.*, [40], peer mentors, who are frequently women living with HIV, have the potential to act as exemplars and motivators, cultivating a feeling of optimism and perseverance. Maternal assistance offered by the health facility with infant feeding is also another type of support, aimed to guide women in making informed decisions aligned with regional protocols. This assistance follows the guidelines set by World Health Organization [41]. Therefore, ongoing healthcare professional training, and the promotion of peer support are vital for strengthening these support systems at Mtendere Clinic.

4.3. Barriers to the Utilization of EMTCT-HIV Services

While most mothers at Mtendere Clinic expressed satisfaction with the caliber of medical attention and professional conduct of healthcare personnel, a subset reported challenges with negative attitudes, resulting in negative feelings towards their overall experience. The notion of health workers exhibiting unfavorable demeanor is substantiated by previous research, which has recognized pessimistic attitudes and breached confidentiality as hindrances to PMTCT engagement [42] [43]. This identification of health workers' bad attitude as a significant barrier is disheartening and unfavorable, as it may impede the essential support and care required by HIV-positive mothers [44]. Further research is imperative to investigate the impact of healthcare professionals' attitudes on the uptake of EMTCT services, emphasizing the need to address this issue for effective HIV prevention and care. Training and sensitization programs can be implemented for healthcare professionals to promote a patient-centered approach and foster empathy and understanding towards HIV-positive mothers. Emphasizing the importance of respectful and non-judgmental communication can help improve the overall experience of mothers attending EMTCT services.

Long waiting times at Mtendere Clinic were also reported to act as a barrier to the utilization of EMTCT services, with delays in starting the program and extensive documentation processes contributing to the issue. Similar findings were reported by Kate *et al.* [44] in Nigeria, revealing that prolonged waiting periods as a hindrance for women seeking access to EMTCT services. The extended waiting time may result from a shortage of healthcare personnel, additional services for infants exposed to HIV, and potential scheduling challenges for HIV-positive mothers during routine under-five clinic visits. Addressing these issues, such as implementing attendance guidelines and allocating adequate medical personnel, is essential to improve the efficiency of EMTCT services and enhance accessibility [14]. Streamlining administrative processes and optimizing clinic workflows can help reduce waiting times at Mtendere Clinic. Implementing appointment systems, prioritizing urgent cases, and allocating additional staff resources during peak hours can contribute to more efficient service delivery and improve patient satisfaction with the use of EMTCT services at the facility.

Several women reported refraining from disclosing their HIV status to family members and partners due to apprehension regarding potential stigmatization and discrimination. Additionally, some women expressed concerns that their community may hold negative attitudes towards individuals living with HIV, leading them to avoid accessing EMTCT services. According to Cornelius *et al.*, [45] stigma from family members, healthcare providers, and the local community can hinder the ability of HIV-positive mothers to access care and adhere to anti-retroviral therapy. Stigma and discrimination are factors that can hinder individuals from seeking knowledge of their HIV status, as well as lead to denial of seropositive status among women living with HIV (WLHIV), non-disclosure

of HIV status to partners, and even prompt some pregnant and breastfeeding WLHIV to relocate, as noted by Tucker [46]. These factors act as formidable obstacles in the way of availing HIV prevention, testing, and treatment services. Previous research conducted by Modi *et al.*, [47] in India, has documented the presence of stigma and the authors expounded that familiarity with preventive and care initiatives as a hindrance to the adoption of EMTCT could potentially mitigate the stigmatization of HIV among acquaintances and relatives. This suggests that a dearth of information regarding EMTCT may potentially exacerbate stigmatization within familial and social circles. On the other hand, the findings of Odiachi *et al.*, [48] reveal that mentor mothers can utilize public disclosure in community settings as a strategy to normalize the experience of living with HIV. This approach can serve as a reflection of their ability to overcome self-stigma and lead healthy and fulfilling lives. Hence, it is imperative to consider implementing interventions such as mentor-mother peer support strategies for women living with HIV in Zambia. According to Akinde *et al.*, [40], women who provide mentorship and peer support to other women living with HIV are effective in reducing stigma and discrimination. This is due to their ability to demonstrate empathy and relate to the shared experiences of their peers. Additionally, their personal success in achieving the elimination of mother-to-child transmission outcomes makes them credible role models for women living with HIV. Implementing community-based awareness campaigns and education programs can help challenge stigma surrounding HIV and encourage open discussions about HIV status within families and communities. Peer support groups, led by mentor mothers who have successfully navigated the EMTCT process, can provide a supportive environment for women to share experiences, seek advice, and overcome feelings of isolation and stigma.

Inadequate support from spouses and other family members acts as a hindrance to their successful implementation of EMTCT as reported by the mothers in the EMTCT program at Mtendere Clinic. Tucker [46] reported comparable obstacles such as lack of support from spouse and relatives. Maternal figures observed that inadequate assistance primarily stemmed from societal disapproval and bias exhibited by their relatives and significant others. Individuals who are near women who are living with HIV should serve as a valuable source of support and exhibit empathy [49]. According to Zhang *et al.* [50], a lack of support from partners, families, or in-laws can deter women from seeking EMTCT services. In some cases, women may fear disclosing their HIV status to their partners due to concerns about abandonment or violence. It is recommended that they be encouraged to participate in the collective effort to combat HIV. Hence, it is recommended to persist in promoting tactics such as the engagement of men in EMTCT. Engaging men in EMTCT programs through targeted outreach and education initiatives can foster greater support and involvement from spouses and family members. Providing counseling services for couples and family units, emphasizing the importance of shared decision-making in healthcare, and addressing misconceptions and fears related to HIV transmission can

strengthen familial support networks and promote positive health-seeking behaviors.

One of the encountered challenges pertained to transportation to reach the EMTCT clinic. Mothers have recognized the insufficiency of funds for transportation as a hindrance to accessing EMTCT services, which is attributed to the considerable distances that women must traverse to avail themselves of such services. Previous studies by Cataldo *et al.*, [51] Akal and Afework, [52] have revealed that lack of transportation to the medical facility is a substantial barrier. Lack of money for transportation and means of travel may be a factor in patients discontinuing treatment within the first few months of starting ART. Women should be motivated to seek care within their localities, and prompt action should be taken to address issues related to stigma and discrimination. One effective strategy for overcoming self-stigma is the implementation of mother-to-mother peer support, as demonstrated by Odiachi *et al.* (2021). It is recommended that measures be implemented to facilitate the establishment of healthcare services in several residencies so as to combat this transportation barrier to the use of EMTCT services. Exploring telemedicine options and mobile health clinics to provide decentralized EMTCT services in remote areas can improve accessibility and reduce reliance on long-distance travel. Additionally, local transportation authorities in Zambia can consider establishing shuttle services or subsidizing transportation costs for women attending EMTCT clinics which can help address the barrier of transportation.

5. Conclusion

The study has revealed the experiences of HIV-positive women utilizing the EMTCT-HIV services at Mtendere Clinic, Lusaka Zambia. Many of the experiences are negative encompassing emotions of sadness, fear of getting infected or dying, anxiety, frustration, and depression and thoughts about their own or their unborn child's death from HIV.The positive impact of spousal, familial, and healthcare facility support on the journey of HIV-positive mothers through EMTCT services is evident. Encouragement, financial assistance, and psychological support from family members, particularly spouses, play a crucial role in enhancing adherence and overall maternal well-being. Healthcare professionals offering psychological assistance, treatment adherence monitoring, and peer support contribute significantly to positive outcomes in the context of EMTCT. However, the study also revealed that the negative attitudes of healthcare workers, long waiting times, fear of stigmatization, lack of support from family members, and transportation challenges emerge as significant hurdles to their utilization of EMTCT-HIV services. Addressing these barriers requires training programs for healthcare professionals, streamlined service delivery processes to reduce waiting times, community education to mitigate stigma, and initiatives to enhance familial and spousal support. In moving forward, it is imperative to design interventions that foster a supportive environment at both the interpersonal

and healthcare system levels. Empowering women with knowledge, encouraging open communication within families, and promoting community awareness are essential steps toward creating an environment conducive to the effective utilization of EMTCT services. Additionally, continuous efforts are needed to refine healthcare delivery processes, ensuring efficiency, and minimizing barriers that hinder accessibility.

6. Study Limitations

This study's limitations include reliance on self-reported data from mothers, which may introduce recall bias or social desirability bias. Employing additional methods like observation or interviews with healthcare providers in future research could enhance understanding of barriers and facilitators to EMTCT service utilization. Caution is advised when generalizing results as they were based on the subjective experiences of a specific group at the Mtendere clinic. To improve generalization, future studies should quantitatively investigate identified barriers using a larger sample size.

Another limitation is the focus solely on mothers' experiences in the EMTCT program, excluding the perspectives of spouses and family members. To comprehensively understand EMTCT service utilization, future research should involve partners and family members.

Mothers in this study were hesitant to disclose instances of negative attitudes from health workers, potentially impacting data collection. Engaging with mothers who completed the EMTCT program in future research could facilitate objective investigation without concerns about affecting their service utilization.

Lastly, it's important to acknowledge that the study's focus on a single clinic and the qualitative methodology with a sample size of thirteen participants may restrict the generalization of the findings to broader contexts. To enhance the external validity of future research, it is recommended to include multiple clinics or healthcare facilities in diverse settings. Employing quantitative methods alongside qualitative approaches could offer a more comprehensive understanding of the phenomenon under investigation. Moreover, expanding the sample size to encompass a more diverse range of participants from various socio-demographic backgrounds and geographical locations would provide a richer dataset for analysis.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix 1. Interview Guide for Participants

Appendix 1 presents the questions that were asked regarding demographic characteristics, experiences with living with HIV, and perceived personal and health system barriers to the Uptake of EMTCT-HIV in Parts 1, 2, and 3, respectively.

Part I. Demographic

1) How old are you?

2) What is your marital status?

3) How many children do you have?

4) What is your occupation?

5) Where do you stay?

6) How far have you gone with education?

Part II. Experiences

1) Explain what you understand about EMTCT?

2) How is HIV transmitted from mother to child?

3) Describe how you were treated at the health Centre when they discovered you are HIV positive?

4) Have you felt victimized because of your HIV status?

a) If no, ___ is not applicable. If yes ___

b) How?

c) By whom

d) How has this affected you?

e) How have you dealt with the situation?

5) Do you think your HIV status was kept confidential at the health facilities you attended?

Part III. Perceived personal and health system barriers to Uptake of EMTCT-HIV

1) Explain the barriers to uptake of EMTCT-HIV

2) Have you disclosed your HIV status to your husband?

a) If not, why? (Applicable to those who have not disclosed)

3) Explain the support you receive from your husband in the uptake of EMTCT-HIV? (Applicable to those that have disclosed their status)

4) Describe your experience with the healthcare providers under EMTCT-HIV care?

5) Explain the attitude of healthcare providers in EMTCT-HIV?