



UTILIZATION AND PERCEIVED BENEFITS OF MENTOR MOTHERS' SUPPORT AMONG CHILDBEARING WOMEN LIVING WITH HIV IN IBADAN, NIGERIA

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Abstract: Across the globe, HIV continuously poses a critical public health challenge, particularly affecting women during their reproductive years. Data from the Joint United Nations Programme on HIV/AIDS reveals that in 2022, 39 million people were living with HIV, of which 1.5 million were children aged 0-14 years, with 53% being women and girls. Peer support interventions have emerged as promising strategies to address the multifaceted challenges faced by people living with HIV. This study assessed the utilization and perceived benefits of mentor mothers' support among childbearing women living with HIV. This is a cross-sectional descriptive study in which 370 childbearing mothers were recruited using a multi-stage random sampling method. Data was collected using a structured self-administered questionnaire, was analyzed using SPSS version 25 and presented in a frequency table. Hypotheses were tested at 5% level of significance. Results revealed that 254 respondents (68.6%) were between the age group of 21 and 30 years with mean age and standard deviation of 28.1 ± 6.0 years; 232 respondents (62.8%) were married; 173 respondents (46.8%) were artisans; 226 respondents (61.1%) had tertiary education; 201 respondents (54.3%) were not currently pregnant; 268 respondents (72.4%) were multiparous; 201 respondents (54.3%) had utilized mentor mother services; 175 respondents (47.3%) showed the need for emotional support as the factor influencing service utilization; 103 respondents (27.8%) showed making infant feeding decisions as the most valued benefits; 344 respondents (93%) identified long waiting times as barrier to utilization; age and education level (p value = 0.002), including perceived benefits (p value = 0.001) were found to be significantly associated with service utilization. The strong association between perceived benefits and utilization underscores the critical importance of effective communication about service value and addressing systemic barriers to access.

Keywords: Utilization, perceived benefits, childbearing women, mentor mothers, HIV, PMTCT

INTRODUCTION

Peer support interventions have emerged as promising strategies to address the multifaceted challenges faced by people living with HIV and mentor mother programs represent a specific type of this peer support interventions. These interventions are generally based on the principle that individuals who share similar experiences and challenges can provide unique forms of support that complement professional healthcare services (Fortuna,

Solomon, & Rivera, 2022). Peer support models in HIV care encompass various approaches, including peer counseling, peer navigation, peer education, and peer mentoring. The integration of mentor mother programs into Nigeria's prevention of mother-to-child transmission (PMTCT) services has been supported by various stakeholders, including the Federal Ministry of Health, international development partners, and implementing organizations. These programs have been implemented in

Academic Journal of Nursing and Health Education

An official Publication of Center for International Research Development

Double Blind Peer and Editorial Review International Referred Journal; Globally index

Available <https://cirdjournals.com/index.php/ajnhe>; E-mail: journals@cirdjournals.com



different forms across various states and healthcare facilities, with adaptations to local contexts and available resources (Hendricks et al., 2022). Several studies have examined aspects of peer support interventions for people living with HIV in Nigeria, with generally positive findings (Berg, Page, & Øgård-Repål, 2021). However, most of these studies have focused on general adult populations or have been conducted in other regions of the country. Limited research has specifically examined mentor mother programs in southwestern Nigeria, and even fewer studies have investigated these programs from the perspective of service utilization and perceived benefits among childbearing women they serve.

Across the globe, HIV continuously poses a critical health challenge, particularly affecting women during their reproductive years. Women have borne a disproportionate burden of the global HIV epidemic, particularly those in their reproductive years. Data from the Joint United Nations Programme on HIV/AIDS reveals that in 2022, there were 39 million people living with HIV, of which 37.5 million were adults and 1.5 million were children aged 0-14 years, with 53% being women and girls. Sub-Saharan Africa houses the majority of these women, accounting for 65% of people living with HIV (PLHIV) (Payagala & Pozniak, 2024). Despite the availability of Antiretroviral Therapy, there were still 630,000 AIDS-related deaths in 2022, with 60% occurring in sub-Saharan Africa and 44% affecting women and girls (Van Schalkwyk et al., 2024).

Nigeria carries one of the largest HIV burdens globally, with an estimated 1.9 million people living with HIV as of 2021. Women account for approximately 54% of all people living with HIV in the country, with the majority being of reproductive age. The country's HIV epidemic is characterized by significant geographical variations, with prevalence rates ranging from less than 1% in some states to over 5% in others (Niohuru, 2023). The Nigerian government has implemented comprehensive HIV prevention and treatment programs, including extensive PMTCT services, which has become a cornerstone of global HIV prevention efforts. The National Guidelines for Prevention of Mother-to-Child Transmission of HIV outline evidence-based protocols for HIV testing,

treatment, and care during pregnancy, delivery, and the postpartum period (Migliori et al., 2022). These guidelines emphasize the importance of integrated service delivery, community engagement, and psychosocial support in achieving optimal outcomes. While remarkable progress has been made in antiretroviral therapy (ART) and PMTCT protocols, significant challenges persist. Women living with HIV during pregnancy often struggle with treatment adherence, remaining engaged in care, and accessing adequate psychosocial support (Maryam et al., 2021). Conventional healthcare approaches frequently prove inadequate when confronting the intricate social, cultural, and economic barriers that influence how these women seek and receive care. Hence, this study assessed the utilization and perceived benefits of mentor mother's support among childbearing women living with HIV at Adeoyo Maternity Teaching Hospital (AMTH) in Ibadan, with below questions, objectives and hypothesis:

Research Questions

1. What is the level of utilization of mentor mother support services among childbearing women living with HIV at AMTH, Ibadan?
2. What factors influence the decision of childbearing women living with HIV to utilize mentor mother support services at AMTH, Ibadan?
3. What are the perceived benefits of mentor mother support among childbearing women living with HIV who have utilized these services at AMTH, Ibadan?
4. What barriers do childbearing women living with HIV encounter in accessing mentor mother support services at AMTH, Ibadan?

Specific Objectives

1. To assess the level of utilization of mentor mother support services by childbearing women living with HIV.
2. To identify factors that influence the utilization of mentor mother support services among childbearing women living with HIV.
3. To examine the perceived benefits of mentor mother support among childbearing women living with HIV who have utilized the services.



4. To identify barriers to accessing mentor mother support services among childbearing women living with HIV.

Research Hypotheses

1. There is no significant association between socio-demographic characteristics (age, educational level, marital status, work status) and utilization of mentor mother services among childbearing women living with HIV at AMTH.

2. There is no significant association between perceived benefits and utilization of mentor mother services among childbearing women living with HIV at AMTH.

3. There is no significant association between parity and utilization of mentor mother services among childbearing women living with HIV at AMTH.

METHODOLOGY

Research Design: A cross-sectional descriptive design to assess the utilization and perceived benefits of mentor mothers' support among childbearing women living with HIV at AMTH.

Study Setting: This study was conducted among childbearing women living with HIV in Adeoyo Maternity Teaching Hospital (AMTH).

Study Population: Childbearing women living with HIV, both currently pregnant or have delivered within the past 2 years, and were at various stages of the PMTCT cascade.

Criteria for Selection of Sample

Inclusion criteria:

- Childbearing women who have been diagnosed with HIV infection through appropriate laboratory testing and are aware of their HIV-positive status.
- Women who are currently pregnant (at any gestational age) or have delivered a baby within the past 2 years at the time of data collection.
- Women who are currently receiving services at AMTH, including antenatal care, delivery services, postnatal care, or HIV care services.
- Childbearing women who voluntarily consent to participate in the study.

Exclusion criteria:

- Childbearing women under 18 years of age to avoid ethical complexities associated with minor participants and ensure legal capacity for consent.
- Women who delivered more than 2 years prior to data collection.
- All childbearing women who do not consent to participate in the study or withdraws consent during the recruitment process.

Sampling and Sampling Procedure

Sample size: The sample size for this study was 370 and it was determined using the Taro Yamane formula developed in 1967: $n = N \div (1 + Ne^2)$; Where n = sample size, N = population size = 2893 (gotten from the National Data Repository for Centre for Disease Control and signifies the women of childbearing age that are actively on antiretroviral treatment at AMTH during the study period), e = margin of error = 0.05.

Sampling procedure: Multi-stage random sampling process was used in systematic stages. In the first stage, a comprehensive sampling frame was developed by obtaining a list of all childbearing women living with HIV, aged between 15 to 49 years, who are registered patients at the HIV clinic of AMTH. This was accessed from the National Data Repository for the Centre for Disease Control, with the necessary ethical approvals and strict adherence to confidentiality protocols. The second stage involved screening the sampling frame to include only women who met the study's inclusion criteria and are actively attending clinic visits. In the third stage, each eligible participant in the refined sampling frame was assigned a unique identification number. This served the dual purpose of maintaining confidentiality and enabling the random selection process. The final stage involved random selection of participants using their identification numbers until the required sample size of 370 respondents was achieved. In cases where a randomly selected participant decline participation or is unavailable, the next randomly selected individual was approached until the predetermined sample size was achieved.

Instrument for Data Collection



The instrument is a structured 47-items questionnaire, adopted from Abasilim, Adejumo, & Ajayi (2024) and adapted to the study setting based on the study aim. The questionnaire comprised seven (7) different sections. Section A (8 items, 1-8) comprised questions that elicit the socio-demographic characteristics of the respondents; Section B (7 items, 9 - 15) comprised questions that determines the utilization of mentor mother services among the respondents; Section C (10 items, 16 - 25) comprised statements that identifies the factors influencing the utilization of mentor mother services among the respondents; Section D (12 items, 26 - 37) comprised perceived beneficial factors on a 5-point Likert scale that evaluates how much mentor mother services have helped the respondents; Section E (10 items, 38 - 47) comprised statements that identifies the barriers to the utilization of mentor mother services among the respondents.

Validity and Reliability of Data Collection Instrument

Validity of instrument: The instrument for data collection (questionnaire) went through face and content validity, where experts in the field, such as the UI/UCH Health Ethical Review Committee and the Oyo State Ethical Review Committee; critically reviewed and examined the constructs of the questionnaire, comparing it with current and relevant literature, and making sure that the questions elicited the information required to meet the set objectives of the study.

Reliability of instrument: To ensure reliability of instrument (questionnaire), the questionnaire used was validated through a pilot study before going to the field for data collection. The questionnaires were pre-tested using the Cronbach's Alpha Reliability Test, where five percent of it (19 questionnaires) was administered to childbearing women living with HIV and receiving services from a Primary Healthcare Center in Ibadan, who were not included in the study but possess similar characteristics, so as to test the instrument for its consistency, clarity, organization, applicability, as well as to determine the length of time needed to collect the data.

Method of Data Collection

A letter of ethical permission (which enabled the researcher to gain access to the concerned participants) was gotten from the UI/UCH ethical committee and the Oyo State Ethical Review Committee. Detailed information about the purpose of the study was explained to the participants and consent was sought verbally, adhering strictly to the inclusion criteria. Questionnaires were then distributed to participants within AMTH on every HIV clinic day, using a random sampling technique until the calculated sample size was achieved. Instructions on how to fill the questionnaire was clearly written on the questionnaire and explanations were provided where and when necessary.

Method of Data Analysis

The completed copies of the questionnaires were collected and crosschecked for completeness of information and responses. The raw data generated in the research study was then cleaned, coded and entered into the Statistical Package for Social Sciences (SPSS) version 25, which was used to analyze the data. Descriptive statistic tools such as frequency distribution table, mean, standard deviation and figures was used to summarize and present the results from the study. Frequency and percentage were used to answer the research questions, while mean and standard deviation were used to categorize respondents into high utilization of mentor mother support services and low utilization of mentor mother support services. For inferential analysis, the Pearson's Chi-square test was used to test the hypothesis to determine the presence or absence of associations at a 0.05 level of significance and appropriate degree of freedom.

Ethical Consideration

The researcher ensured that the ethical principles established in the Belmont report - Respect for persons, Beneficence, and Justice – were strictly adhered to while carrying out the research. The study was approved by the UCH /UI Ethical Review Committee and the Oyo State Ethical Review Committee before commencing dissemination of the research questionnaires. Informed consent was sought from all participants before giving out questionnaires for their responses, following presentation



of ethical clearance letter to the Chief Matron of the HIV clinic.

RESULTS

Table 1: Sociodemographic Characteristics of Respondents (N = 370)

Variables	Frequency (N)	Percentage
Age:		
16-20	25	6.8
21-30	254	68.6
31-45	91	24.6
Marital status:		
Single	90	24.3
Married	232	62.8
Widowed	46	12.4
Divorced/Separated	2	0.5
Religion:		
Christianity	161	43.5
Islam	169	45.7
Traditionalist	40	10.8
Employment status:		
Artisan	173	46.8
Civil Servant	60	16.2
Student	34	9.2
Trader	88	23.8
Unemployed	15	4.1
Level of Education:		
No formal education	26	7.0
Primary education	44	11.9
Secondary education	74	20.0
Tertiary education	226	61.1
Parity:		
Nulliparous (0 child)	32	8.6
Primiparous (1 child)	70	18.9
Multiparous (more than 2 children)	268	72.4
Are you currently pregnant:		
No	169	45.7
Yes	201	54.3
If not pregnant, when did you deliver your last child? :		
Not Applicable	201	54.3
Less than 6 months ago	25	6.8
6 -12 months ago	40	10.8



12 -18 months ago	19	5.1
18 months - 2 years ago	85	23.0

Table 1 above shows that 68.6% (n = 254) were between the age group of 21 and 30 years with mean age and standard deviation of 28.1 ± 6.0 years, 62.8% (n = 232)

were married, 46.8% (n = 173) were artisans, 61.1% (n = 226) had tertiary education, 54.3% (n = 201) were not currently pregnant, and 72.4% (n = 268) were multiparous.

Table 2: Utilization of Mentor Mother Support Services

Variables	Frequency (N)	Percentage (%)
Have you ever used mentor mother services at this hospital?		
Yes	201	54.3
No	169	45.7
When did you first start using mentor mother services?		
During early pregnancy (1st trimester)	64	17.3
During mid pregnancy (2nd trimester)	37	10.0
During late pregnancy (3 rd trimester)	19	5.1
After delivery of last child	33	8.9
Before this pregnancy	48	13.0
For how long have you been receiving mentor mother support?		
Less than a month	3	0.8
1 - 3 months	59	15.9
3 - 6 months	30	8.1
6 - 9 months	17	4.6
9 months - 1 year	23	6.2
More than 1 year	23	6.2
More than 2 years	46	12.4
How often do you interact with your mentor mother?		
Once in 3 months	195	52.7
Weekly	1	0.3
Bi-weekly	1	0.3
Monthly	1	0.3
Occasionally when needed	3	0.8
On average, how much time do you spend with your mentor mother during each interaction?		
Less than 15 minutes	7	1.9
15-30 minutes	43	11.6
31-60 minutes	127	34.3
More than 1 hour	24	6.5
In what ways do you interact with your mentor mother?	Yes	No
Face-to-face meetings at the hospital	131 (35.4 %)	71 (19.1 %)
Phone calls	138 (37.3 %)	64 (17.3 %)
Text messages	13 (3.5 %)	189 (51.1 %)



Home visits	5 (1.4 %)	197 (53.2 %)
Group meetings/sessions	42 (11.4 %)	160 (43.2 %)
Social media	41 (11.1 %)	161 (43.5 %)

Table 2 above shows that 54.3% (n = 201) had ever used mentor mother services, 13% (n = 48) started using mentor mother services before pregnancy, 17.3% (n = 64) started using mentor mother services during early pregnancy (1st trimester), 52.7% (n = 195) interacted with their mentor

mother once in 3 months, 34.3% (n = 127) spent 31 - 60 minutes with their mentor mother during each interaction, 37.3% (n = 138) interacted with their mentor mother on phone calls.

Table 3: Factors Influencing Utilization of Mentor Mother Services

Factors Influencing Utilization	Yes	No
Need for emotional support.	175 (47.3)	26 (7.0)
Wanting to learn from someone's experience	125 (33.8)	76 (20.5)
Recommendation by healthcare provider	134 (36.2)	67 (18.1)
I was worried about stigma.	99 (26.8)	102 (27.6)
Confidentiality concerns.	99 (26.8)	102 (27.6)
The service was easily accessible.	161 (43.5)	40 (10.8)
Trust in mentor mothers	104 (28.1)	97 (26.2)
My family supported the idea.	107 (28.9)	94 (25.4)
Social connectedness	132 (35.7)	70 (18.9)

Table 3 above shows the responses on factors influencing utilization of mentor mother services. 47.3% (n = 175) recognized need for emotional support, 33.8% (n = 125) identified wanting to learn from someone's experience, 36.2% (n = 134) recognized recommendation by healthcare provider. 26.8% (n = 99) identified worry about

stigma and confidentiality concerns. 43.5% (n = 161) identified that the service was easily accessible. 28.1% (n = 104) identified trust in mentor mothers, 28.9% (n = 107) recognized family support, while 35.7% (n = 132) recognized social connectedness.

Table 4: Perceived Benefits of Mentor Mother Support Services

Area of Benefit/Support	Not At All	A Little	Moderately	Quite A Bit	Extremely
Understanding HIV and ART benefits.	56 (15.1)	6 (1.6)	22 (5.9)	24 (6.5)	93 (25.1)
Taking medications regularly.	6 (1.6)	55 (14.9)	27 (7.3)	40 (10.8)	73 (19.7)
Attending clinic appointments.	10 (2.7)	30 (8.1)	68 (18.4)	46 (12.4)	47 (12.7)
Coping with emotional stress.	10 (2.7)	27 (7.3)	81 (21.9)	57 (15.4)	26 (7.0)
Dealing with fear and anxiety.	8 (2.2)	28 (7.6)	62 (16.8)	59 (15.9)	44 (11.9)
Making decisions about infant feeding.	9 (2.4)	21 (5.7)	26 (7.0)	42 (11.4)	103 (27.8)
Managing disclosure to family/partner.	31 (8.4)	43 (11.6)	55 (14.9)	39 (10.5)	33 (8.9)



Preventing transmission.	mother-to-child	13 (3.5)	18 (4.9)	41 (11.1)	34 (9.2)	95 (25.7)
Building self-confidence.		8 (2.1)	38 (10.3)	76 (20.5)	48 (13.0)	31 (8.4)
Coping with stigma.		11 (3.0)	43 (11.6)	54 (14.6)	60 (16.2)	33 (8.9)
Empowerment		31 (8.4)	31 (8.4)	55 (14.9)	36 (9.7)	48 (13.0)

The perceived benefits of mentor mother support services as presented in table 5 above showed that 39.2% recognized the understanding of HIV and ART benefits, 52.7% identified taking medications regularly, 51.6% identified attending clinic appointments and coping with emotional stress, 51.9% recognized making decisions

about infant feeding. 45.9% identified managing disclosure to family/partner, 50.8% recognized preventing mother-to-child transmission. 52.2% identified building self-confidence, 51.3% identified coping stigma. 45.9% recognized empowerment as perceived benefits of mentor mother support services.

Table 5: Barriers to Accessing Mentor Mother Support Services

Barriers to Accessing Mentor Mothers Support Services	Yes	No
Long waiting times.	344(93.0)	26(7.0)
Inconvenient appointment times.	163(44.1)	207(55.9)
Transportation difficulties.	219(59.2)	151(40.8)
Lack of privacy/confidentiality.	187(50.5)	183(49.5)
Unfriendly mentor mothers.	86(23.2)	284(76.8)
Language barriers.	140(37.8)	230(62.2)
Conflicting work/family obligations.	156(42.2)	214(57.8)
Inadequate information about services.	135(36.5)	235(63.5)
Fear of stigma from other patients.	98(26.5)	272(73.5)
Lack of understanding of the support services	126(34.1)	244(65.9)

Table 7 above presented barriers to accessing mentor mother support services. 93% identified long waiting times while only 44.1% recognized inconvenient appointment times. 59.2% identified transportation difficulties, 50.5% recognized lack of privacy/confidentiality. 23.2% identified unfriendly mentor mothers, 37.8% identified

language barriers, 42.2% identified conflicting work/family obligations, 36.5% identified inadequate information about services, 26.5% recognized fear of stigma from other patients and 34.1% recognized lack of understanding of the support services.

Testing of Hypothesis

Table 6: Test Of Association Between Socio-Demographic Factors (Age, Education, Marital Status and Work Status) And Utilization of Mentor Mother Support Services.

Utilization	Chi-square	df	P-value	Remark	Decision
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Sociodemographic Factors	Yes (%)	No (%)					
Age In Years							
16-20	8(2.2)	17(4.6)	12.787	2	0.002	Significant	Ho rejected
21-30	131(35.4)	123(33.2)					
31-45	62(16.8)	29(7.8)					
Education							
No formal education	15(4.1)	29(7.8)					
Primary education	27(7.3)	10(2.7)					
Secondary education	58(15.7)	37(10.0)	18.393	5	0.002	Significant	Ho rejected
Tertiary Education	101 (27.3)	93 (25.2)					
Marital Status							
Single	45(12.2)	45(12.2)					
Married	131(35.4)	101(27.3)	3.925	3	0.416	Not significant	Ho failed to be rejected
Divorced/Separated	25(6.7)	21(5.7)					
Widowed	0(0)	2(0.5)					
Employment Status							
Artisan	107(28.9)	66(17.8)				Not significant	Ho failed to be rejected
Civil Servant	29(7.8)	31(8.4)					
Student	14(3.8)	20(5.4)	8.249	4	0.083		
Trader	43(11.6)	45(12.2)					
Unemployed	8(2.2)	7(1.9)					

Hypothesis one (Ho1): There is no significant association between socio-demographic factors (age, education, marital status and work status) and utilization of mentor mother support services.

The Pearson Chi-square test for the sociodemographic factors (age, education level, marital status and work status) above reveals the following:

Age: The p-value for age is 0.002, which is less than 0.05, indicating a statistically significant association between age and utilization of mentor mother support services.

Education Level: The p-value for education level is also 0.002, which is less than 0.05, indicating a statistically significant association between education level and utilization of mentor mother support services.

Marital Status: The p-value for income is 0.416, which is greater than 0.05, meaning that marital status does not significantly affect the utilization of mentor mother support services.

Work Status: The p-value for income is 0.083, which is greater than 0.05, meaning that work status does not significantly affect the utilization of mentor mother support services.

Based on these results, the null hypothesis is partially rejected. Both age and education level significantly influence utilization of mentor mother support services, while marital status and work status does not.



Table 7: Test of Association Between Perceived Benefits and Utilization of Mentor Mother Services Among Childbearing Women Living with HIV At AMTH.

Perceived Benefits	Utilization		Chi-Square	df	P-value	Remark	Decision
	Yes	No					
None	0(0)	169(45.7)	370.0	2	0.001	Significant	Ho rejected
Low	37(10.0)	0(0)					
High	164(44.3)	0(0)					
Total	201(54.3)	169(45.7)					

Hypothesis two (Ho2): There is no significant association between perceived benefits and utilization of mentor mother services among childbearing women living with HIV at AMTH.

Pearson Chi-square test above revealed that there was a significant association between perceived benefits and utilization of mentor mother services (X^2 -370, p-value-0.001) among childbearing women living with HIV at AMTH. Hence, the null hypothesis is rejected.

Table 8: Test of Association Between Parity and Utilization of Mentor Mother Services Among Childbearing Women Living with HIV At AMTH.

Parity	Utilization		Chi-square	df	P-value	Remark	Decision
	Yes	No					
Nulliparous	15(4.1)	17(4.6)	0.803	2	0.669	Not significant	Ho failed to be rejected
Primiparous	38(10.3)	32(8.6)					
Multiparous	148(40.0)	120(32.4)					
Total	201(54.3)	169(45.7)					

Hypothesis three (Ho3): There is no significant association between parity and utilization of mentor mother services among childbearing women living with HIV at AMTH.

Pearson Chi-square test above revealed that there was no significant association between parity and utilization of mentor mother services (X^2 - 0.803, p-value 0.669) among childbearing women living with HIV at AMTH. Hence, the null hypothesis failed to be rejected.

pattern of HIV prevalence among women of reproductive age. According to Mabunda et al. (2021), young women aged 20-35 years constitute the highest proportion of HIV-positive individuals. This demographic pattern reflects the peak reproductive years when women are most likely to seek maternal health services and benefit from mentor mother programs. The predominance of women in their twenties and thirties aligns with findings from similar studies in sub-Saharan Africa. Nzelu et al. (2024) reported comparable age distributions in their study of HIV-positive pregnant women in southeastern Nigeria, where majority of participants were aged 20-35 years. This age group represents a critical population for prevention of mother-to-child transmission (PMTCT) interventions, as they are in their prime reproductive years and may have multiple

DISCUSSION

Sociodemographic Characteristics of Respondents

The study findings show that the majority of participants were aged 21-30 years, followed by those aged 31-45 years. This age distribution is consistent with the global



pregnancies during which mentor mother support can be beneficial.

The study revealed that majority of the participants were married. The high proportion of married women is significant for mentor mother program implementation, as marital status can influence both HIV disclosure patterns and support-seeking behaviors. Dapar et al. (2021) emphasized that married women living with HIV often face complex challenges related to disclosure to spouses and may benefit significantly from peer support provided by mentor mothers who have navigated similar situations. The religious distribution shows a relatively balanced representation between Christianity and Islam, with one-tenth of them identifying as traditionalists. This distribution reflects the religious diversity of Ibadan and southwestern Nigeria generally. Religious beliefs significantly influence health-seeking behaviors and acceptance of HIV-related interventions. Verma et al. (2025) noted that religious considerations often affect HIV disclosure decisions and treatment adherence among women, making culturally sensitive mentor mother programs essential. The balanced Christian-Muslim representation suggests that mentor mother programs at this facility must be designed to accommodate diverse religious perspectives and practices. Traditional religious practitioners, though representing a smaller proportion, also require culturally appropriate support approaches that respect their belief systems while promoting optimal health outcomes.

The occupational distribution reveals that artisans constituted the largest group, followed by traders. This pattern reflects the economic structure of urban Nigeria, where informal employment sector predominates. The high proportion of artisans and traders indicates that many participants are engaged in income-generating activities that may affect their ability to attend regular clinic appointments and mentor mother sessions. Ogueji (2021) highlighted that women in informal employment often face challenges accessing healthcare services due to irregular income and inflexible work schedules. This has important implications for mentor mother program design, suggesting the need for flexible scheduling and possibly

mobile or community-based support options to accommodate the work patterns of artisans and traders.

The educational profile shows encouraging levels of formal education, with almost one-third having university degrees. Only very few had no formal education. This relatively high educational attainment is significant for mentor mother program effectiveness, as education levels influence health literacy, treatment adherence, and ability to navigate healthcare systems. The high proportion of participants with tertiary education is somewhat surprising given the general population characteristics but may reflect the urban setting of the study and the specific population accessing services at a teaching hospital. Dapar et al. (2021) noted that higher education levels among HIV-positive women are associated with better treatment outcomes and greater utilization of support services, including peer support programs.

The study shows that a significant majority of the participants were multiparous. Additionally, majority of them were currently pregnant at the time of the study. The high proportion of multiparous women suggests that many participants have previous experience with pregnancy and childbirth while living with HIV, which may influence their receptiveness to mentor mother support. The substantial proportion of currently pregnant women indicates active engagement with PMTCT services, which is optimal for mentor mother program implementation. Mosisa et al. (2022) emphasized that pregnancy provides a critical window of opportunity for intensive support and education, making pregnant women ideal candidates for mentor mother interventions. The sociodemographic profile of participants in this study reflects a diverse population of childbearing women living with HIV who could benefit significantly from well-designed mentor mother support programs. Understanding these characteristics is crucial for developing targeted interventions that address the specific needs and circumstances of this population.

Utilization of Mentor Mother Support Services

The study findings reveal that a little over half of the participants have utilized mentor mother services at the hospital, while others have not accessed these services.



This indicates moderate uptake of mentor mother support services, suggesting room for improvement in service accessibility and awareness. The utilization patterns show diverse entry points into mentor mother services, where some began during early pregnancy, a few started during mid-pregnancy, very few initiated services during late pregnancy, and some others had used services before their current pregnancy. Regarding duration of support, the data reveals varied engagement periods, with some receiving support for 1-3 months and a few others utilizing services for more than 2 years, indicating both short-term and long-term utilization patterns. The most common interaction frequency is quarterly, with the majority of sessions lasting 31-60 minutes. The primary modes of interaction include phone calls, face-to-face meetings at hospitals, group meetings/sessions and social media.

Helova et al. (2021) in Kenya found that community-based mentor mother interventions were utilized and perceived as acceptable, with peer support associated with improved uptake of critical PMTCT services. This aligns with the moderate utilization rates observed in the data. Taylor et al. (2025) documented significant utilization patterns through Zimbabwe's Young Mentor Mother Program, which demonstrated substantial reach and engagement among its target population, particularly effective for vulnerable subgroups like adolescents and young mothers. Goh et al. (2024) provided extensive evidence through their systematic review of 12 studies involving 1,596 pregnant women and 1,856 new mothers living with HIV, confirming that peer support utilization played an indispensable role in the lives of women living with HIV. Odiachi et al. (2021) found high level of acceptance of mentor mothers among all participants in North-Central Nigeria, with participants expressing strong willingness to utilize the services when available and accessible. The Elizabeth Glaser Pediatric AIDS Foundation (2022) study in Gaza, Mozambique, demonstrated that mentor mother programs were associated with increased 12-month retention in PMTCT care when compared with standard of care, showing measurable improvements in service utilization and proving to be cost-effective.

The utilization data of this study reveals moderate uptake of mentor mother support services with diverse patterns of

engagement. The existing literatures also strongly supports the effectiveness and acceptability of these programs across multiple African contexts, suggesting that while current utilization rates show promise, there remains significant potential for expansion and improvement in service delivery to reach more childbearing women living with HIV.

Factors Influencing Utilization

The study findings reveal multiple interconnected factors that operate at individual, interpersonal, programmatic, and structural levels to influence the utilization of mentor mother support services among childbearing women living with HIV. The need for emotional support emerges as the strongest facilitator, with Goh et al. (2024) confirming through their systematic review that peer support can enhance social connectedness, confidence, and mental health knowledge while reducing feelings of isolation for recipients.

Service accessibility represents another major facilitator, supported by Katirayi et al. (2024) who documented that programs offering flexible scheduling, multiple contact modalities (including home visits, telephone support, and clinic-based meetings), and integration with routine clinical care, revealed higher utilization rates. Healthcare provider recommendation significantly influences utilization, with Kennedy (2024) noting that knowledge of HIV status and treatment engagement (such as a healthcare providers' recommendation of the support service) significantly influence participation in complementary support services.

Social connectedness was shown to facilitate utilization and this is supported by Chang et al. (2024), who found that HIV peer volunteers reinforce the connections between people living with HIV and healthcare services, demonstrating how mentor mother programs create lasting social support networks. Family support and trust in mentor mothers influence utilization patterns. Tavakoli et al. (2024) found that disclosure of HIV status to partners and family members facilitated engagement with support services, including mentor mother programs, with facilitators including feelings of love and closeness in marital relationships and HIV counselling services.



Stigma concerns and confidentiality concerns represent significant barriers. Odiachi et al. (2021) documented that stigma and discrimination remained a critical challenge to the utilization of mentor mother support, while Terefe, Jembere & Liyew (2024) confirmed that stigma and discrimination remain significant barriers to accessing HIV-related services. Prior HIV care engagement serves as another gateway factor. Kennedy (2024) noted that more than two-thirds of pregnant women are already on antiretroviral treatment prior to their current pregnancy, indicating that women already engaged in HIV care are more accessible for recruitment into peer support programs.

Cultural acceptance significantly influences utilization rates. Chang et al. (2024) revealed that taking people with HIV as HIV peer volunteers shows specific motivations and advantages when engaging in peer support practice, indicating that community integration and cultural acceptance strengthen trust and utilization. Learning from others' experience motivates utilization, with Helova et al. (2021) demonstrating that mentor mother interventions provide valuable experiential knowledge that supports pregnant women living with HIV (PWLWH) completion of the PMTCT steps.

The factors influencing utilization of mentor mother support services are multifaceted and interconnected. The existing literatures demonstrate that successful utilization depends on addressing individual needs, ensuring program accessibility and integration with healthcare systems, building trust and cultural acceptance, and overcoming persistent barriers such as stigma and confidentiality concerns. The literature consistently supports that well-designed, culturally appropriate, and integrated mentor mother programs can significantly enhance utilization rates when these facilitating factors are optimized and barriers are systematically addressed.

Perceived Benefits of Mentor Mother Support Services

From the study results, mentor mother support services provide extensive benefits across clinical, psychosocial, educational, and social domains for childbearing women living with HIV. Understanding HIV and ART benefits represents a major clinical advantage. Helova et al. (2021)

in Kenya found that women who received mentor mother support demonstrated improved engagement with PMTCT services and better health behaviors throughout pregnancy and the early postpartum period, with these clinical improvements translating into tangible health outcomes for both mothers and infants, including improved treatment adherence and enhanced retention in care. Preventing Mother-to-Child Transmission emerges as a critical outcome. The Elizabeth Glaser Pediatric AIDS Foundation (2023) study in Gaza, Mozambique, documented that mentor mother programs improve HIV-positive women's understanding of the benefits of ART and medication adherence, including the importance of returning to the facility.

Making decisions about infant feeding represents the highest perceived benefit, highlighting the practical guidance mentor mothers provide during critical decision-making periods. Taking medications regularly, as a benefit, shows substantial impact, with Morris et al. (2023) in Tanzania emphasizing that mentor mother programs are essential for enhanced support systems to improve follow-up and retention in care, particularly addressing challenges where most mothers enrolling in option B+ do not come for confirmatory tests. Attending clinic appointments, as a benefit, demonstrates improved healthcare engagement, supporting the clinical cascade of care for women living with HIV. Building self-confidence and coping with emotional stress, as a perceived benefit of the mentor mother support services, represent important psychosocial outcomes. Goh et al. (2024) through their systematic review identified an overarching theme of transformation from isolation to empowerment, with women reporting significant improvements in self-efficacy, and confidence in managing their HIV status during pregnancy and childbearing.

The benefit of dealing with fear and anxiety addresses critical mental health needs, with Tailor et al. (2025) documenting through Zimbabwe's Young Mentor Mother Program that participants reported improved confidence in managing their HIV status, enhanced knowledge about prevention of mother-to-child transmission, and increased engagement with healthcare services. Empowerment, as a benefit, reflects broader social benefits. Chang et al. (2024)



found that HIV peer volunteers reinforce the connections between people living with HIV and healthcare services, demonstrating how mentor mother programs create lasting social support networks that extend beyond individual relationships to strengthen community-healthcare linkages. Managing disclosure to family/partner, as a benefit, addresses critical social challenges, with the Elizabeth Glaser Pediatric AIDS Foundation (2023) noting that mentor mothers help women develop a sense of community while navigating complex disclosure decisions.

Overall, almost half of the mothers had high perceived benefits of mentor mother support services, while about one-tenth had low perceived benefits, indicating a significant level of perception among the mothers. Notably, almost half of the respondents had no perceived benefits of mentor mother support services. The perceived benefits of mentor mother support services span multiple domains, with the strongest benefits observed in clinical decision-making (particularly infant feeding), HIV knowledge and prevention, and medication adherence. The existing literatures consistently demonstrates that these programs provide transformative support that extends beyond individual clinical outcomes to encompass psychosocial empowerment, educational advancement, and community connection. The literatures confirms that mentor mother support serves as an indispensable complement to clinical care, addressing the holistic needs of childbearing women living with HIV while strengthening their capacity for self-management and long-term health engagement.

Barriers To Accessing Mentor Mother Support Services

The most prominent barrier identified in this study is long waiting times, affecting an overwhelming majority of the respondents. This aligns with findings from Kerna (2025), who analyzed contributing systemic factors that hinder access to care, including workforce shortages and limited healthcare infrastructure. Additionally, inconvenient appointment times and transportation difficulties create substantial obstacles. This is supported by Ponce et al. (2025), who documented extreme geographic

misalignment of healthcare resources and HIV treatment deserts, particularly in sub-Saharan Africa; and Bono et al. (2023), who found that rural areas require long-distance travel with limited transportation options. Lack of privacy/confidentiality was reported by more than half of the respondents, which directly correlates with findings from Tavakoli et al. (2024), whose comprehensive review of 59 studies revealed common barriers including fear of stigma, breach of confidentiality and trust, and concerns about disclosure. The study emphasized how these concerns create substantial barriers to utilization of peer support services.

Fear of stigma from other patients was noted as a barrier by almost one-third of the respondents. This finding is strongly supported by research from East Africa by Terefe, Jembere & Liyew (2024), who found that stigma and discrimination remain significant barriers to accessing HIV-related services. Odiachi et al. (2021) also documented concerns about HIV-related stigma through association with mentor mothers, leading to preferences for receiving services at health facilities rather than at home. The study result shows that inadequate information about services and lack of understanding of support services are significant barriers. This aligns with Rice et al. (2025), who documented that limited health literacy and lack of understanding about potential benefits of peer support create barriers to access. The study emphasized the need for targeted awareness campaigns and tailored support. Language barriers affected over one-third of the respondents, while unfriendly mentor mothers were reported by a few others. These findings reflect broader cultural and programmatic challenges identified by Simbini et al. (2025), who highlighted persistent challenges with program capacity, including inadequate training and limited supervision structures that affect program implementation and quality.

Conflicting work/family obligations affected almost half of the respondents, which is directly supported by Rice et al. (2025), who documented that mothers living with HIV face the challenge of managing their own complex healthcare needs while caring for their children, creating competing priorities that limit engagement with mentor mother services.



These existing literatures demonstrates that barriers to accessing mentor mother support services are multifaceted and interconnected, operating at individual, programmatic, healthcare system, and societal levels. The findings from the study are strongly corroborated by the literature review, which emphasizes that addressing these barriers requires a comprehensive, multi-level approach including community sensitization, healthcare system integration, stigma reduction strategies, improved program capacity, and enhanced confidentiality safeguards to ensure sustainable mentor mother support services.

Relationship Between Socio-Demographic Factors (Age, Education, Marital Status and Work Status) and Utilization of Mentor Mother Support Services

The study findings reveal significant associations between certain socio-demographic characteristics and the utilization of mentor mother support services among childbearing women living with HIV. The chi-square analysis presented in Table 6 demonstrates varying degrees of statistical significance across different demographic variables. The study found a statistically significant relationship between age and mentor mother service utilization. Women aged 21-30 years showed the highest utilization rates, followed by those aged 31-45 years, while the youngest group had the lowest utilization. This pattern implies that age plays a significant role in determining whether nursing mothers living with HIV are likely to utilize mentor mother services. It suggests that women in their prime reproductive years are more likely to engage with mentor mother services, possibly due to greater awareness of HIV-related risks during pregnancy and childbearing. This finding aligns with research by Mabunda et al. (2021), who reported that women aged 20-39 years demonstrated higher engagement with PMTCT services in South African settings. The authors attributed this to increased health consciousness and better understanding of HIV transmission risks during this critical reproductive period. Similarly, Nzelu et al. (2024) found that younger women often faced barriers to accessing peer support services due to stigma concerns and limited autonomy in healthcare decision-making.

Educational attainment showed a significant association with mentor mother service utilization. Notably, women with university degrees had the highest utilization rates, while those with no formal education showed lower engagement. This educational gradient in service utilization reflects the role of health literacy in recognizing the value of peer support interventions, suggesting that individuals with higher levels of education are more inclined to utilize mentor mother services. The relationship between education and healthcare service utilization is well-documented in recent literature. Verma et al. (2025) demonstrated that higher educational levels among HIV-positive women were associated with better understanding of treatment benefits and increased participation in support programs. The authors emphasized that educated women were more likely to appreciate the long-term benefits of peer support in managing HIV and preventing mother-to-child transmission. Dapar et al. (2021) further supported these findings, reporting that educational attainment significantly influenced women's decisions to engage with mentor mother programs in southeastern Nigeria. They noted that educated women were more likely to overcome initial hesitations about participating in peer support activities and demonstrated better retention in such programs.

Interestingly, the study found no statistically significant relationships between marital status and work status with mentor mother service utilization. This suggests that these demographic factors may not be primary determinants of service engagement in this population. The non-significant association with marital status contrasts with some previous studies. However, Mosisa et al. (2022) reported similar findings in their study of HIV-positive women in Nigeria, suggesting that the decision to utilize peer support services may be more influenced by individual health beliefs and perceived benefits rather than marital circumstances. The authors noted that both married and unmarried women faced similar challenges related to HIV stigma and treatment adherence, making mentor mother support equally relevant across marital categories. Regarding employment status, the lack of significant association may reflect the universal nature of HIV-related challenges that transcend occupational boundaries. Ogueji



et al. (2021) observed that HIV-positive women across different employment categories expressed similar needs for emotional support and practical guidance, regardless of their work status. These findings have important implications for mentor mother program targeting and design. The significant associations with age and education suggest that programs may need differentiated approaches for different demographic groups. Younger women may require additional encouragement and support to overcome barriers to service utilization, while educational level should be considered when designing communication strategies and support materials. The lack of association with marital status and work status suggests that mentor mother services address universal needs among HIV-positive childbearing women, regardless of these demographic characteristics. This supports the implementation of inclusive programs that do not discriminate based on marital or employment status.

The relationship between socio-demographic factors and mentor mother service utilization is complex and selective. While age and education significantly influence service engagement, marital and work status appear to be less critical determinants. These findings point out the importance of targeted recruitment strategies that consider demographic variations while maintaining inclusive program approaches that address the universal challenges faced by HIV-positive childbearing women.

Association Between Perceived Benefits and Utilization of Mentor Mother Services Among Childbearing Women Living with HIV At AMTH

Based on the study results, there is a statistically significant association between perceived benefits and utilization of mentor mother support services among childbearing women living with HIV. Recent research consistently supports the relationship between perceived benefits and healthcare service utilization among women living with HIV. The Health Belief Model posits that perceived benefits are fundamental predictors of health-seeking behavior (Rosenstock et al., 1988). When individuals perceive tangible benefits from a health intervention, they are significantly more likely to engage with and continue using the service. Studies among women living with HIV

demonstrate that those who recognize the value of peer support services, particularly in areas such as medication adherence, emotional support, and stigma reduction, show higher engagement rates (Appau et al., 2024; Odiachi et al., 2021). The mentor mother model specifically leverages experiential knowledge, which enhances perceived credibility and benefit among service users. Research indicates that women who perceive mentor mother services as beneficial often cite improved self-efficacy, better treatment outcomes, and enhanced psychosocial well-being as key motivators for continued engagement (Berg et al., 2021; Katirayi et al., 2024).

The strong association found in this study suggests that enhancing awareness of potential benefits could significantly improve service uptake. The perfect correlation between perceived benefits and service utilization points out the critical importance of benefit perception in healthcare decision-making among women living with HIV. This finding aligns with established health behavior theories and recent empirical evidence, highlighting the need for interventions that effectively communicate and demonstrate the value of mentor mother support services.

Association Between Parity and Utilization of Mentor Mother Services Among Childbearing Women Living with HIV At AMTH

Based on the study findings, there is no statistically significant association between parity and utilization of mentor mother support services among childbearing women living with HIV. This finding indicates that the number of previous pregnancies does not significantly influence whether women choose to utilize mentor mother services. Recent research presents mixed findings regarding the relationship between parity and healthcare service utilization among women living with HIV. While one might expect that first-time mothers would have higher service utilization due to inexperience and greater need for support, or that multiparous women would utilize services more due to accumulated experience with the healthcare system, the current findings suggest these assumptions may not hold in the context of mentor mother services (Cheabu et al., 2023). Some studies indicate that women



with previous pregnancy experiences may have different support-seeking behaviors. However, research by Odiachi et al. (2021) found that among women living with HIV, the decision to engage with peer support services is more influenced by current pregnancy concerns and perceived stigma rather than previous birth experiences. The non-significant association may reflect that mentor mother services address universal concerns among women living with HIV, regardless of parity status. Issues such as medication adherence, disclosure concerns, and prevention of mother-to-child transmission are relevant across all parity groups (Katirayi et al., 2024).

Research suggests that in resource-limited settings, healthcare service utilization patterns may be more influenced by structural factors (accessibility, cost, quality of care) rather than individual characteristics like parity (Berg et al., 2021). This could explain why parity does not emerge as a significant predictor in this context. The non-significant finding should be interpreted considering potential confounding factors not captured in this analysis, such as gestational age at enrollment, previous experience with HIV services, or social support networks, which recent literature suggests may moderate the relationship between parity and service utilization (Moseholm et al., 2021). The absence of a significant association between parity and mentor mother service utilization indicates that pregnancy history does not determine engagement with these support services. This finding supports the implementation of inclusive mentor mother programs that address the diverse needs of all women living with HIV, regardless of their previous birth experiences.

IMPLICATIONS

To Nursing Practice

Given that parity showed no significant association with utilization from the findings of the study, nurses should offer mentor mother services to all HIV-positive pregnant women regardless of pregnancy history. They must routinely screen for the top three barriers identified: long waiting times, transportation difficulties, and privacy concerns. Since about one-third prefer phone calls and others prefer face-to-face meetings, nurses should facilitate multiple communication channels. With half of them citing

confidentiality concerns, nurses should implement discrete referral and consultation processes. The study revealed average utilization rate which indicates significant room for improvement; hence, nurses should establish standardized referral protocols. Since about one-tenth of them start services in first trimester, nurses should initiate mentor mother discussions at first antenatal visit. With a few of them using the mentor mother support services for over 2 years, nurses should plan for long-term support coordination.

To Nursing Education

Nursing education programs should include peer support models as essential content in maternal-child health curricula, given the significant association between perceived benefits and utilization. Educational programs should incorporate specialized modules on HIV care during pregnancy, addressing the unique psychosocial needs identified in this study. Curricula should emphasize benefit-focused communication techniques, as perceived benefits were the strongest predictor of service utilization. Given the diverse religious composition, trainings should address cultural sensitivity in peer support referrals. With low utilization of digital platforms, education should include innovative communication strategies. Clinical scenarios should include HIV-positive pregnant women requiring peer support coordination.

To Nursing Research

Given the strong association between perceived benefits and utilization, research should focus on interventions to enhance benefit perception among non-users. Nursing research studies must specifically address the top barriers identified: waiting times, transportation, and privacy. Research must also examine clinical outcomes associated with mentor mother service utilization. The cross-sectional limitation requires follow-up studies tracking utilization patterns over time. Single-site limitation necessitates replication studies across different healthcare settings. Quantitative findings require qualitative exploration of the non-utilization rate, hence the need for further research. Research should examine why utilization of mentor mother support services varies significantly by age, explore why



education level significantly affects utilization of the support service, and also examine service delivery across different religious groups

LIMITATIONS

The study utilized a cross-sectional design which limits ability to establish causal relationships or examine changes over time. The single-site nature of the study may limit generalizability to other healthcare settings or populations. Self-reported data subject to recall bias and social desirability bias. The study has limited exploration of confounding variables which may influence the relationships observed. The study lacked qualitative component to provide deeper understanding of participant experiences. No comparison group of women not exposed to mentor mother services. Limited follow-up data on long-term service utilization patterns. Insufficient exploration of mentor mother training and quality factors.

SUMMARY

This cross-sectional study examined the utilization patterns and perceived benefits of mentor mother support services among 370 childbearing women living with HIV at Adeoyo Maternity Teaching Hospital, Ibadan. The study revealed that more than half of the participants had utilized mentor mother services, with the majority interacting with their mentor mothers once every three months. Key findings included a statistically significant association between perceived benefits and service utilization, while parity showed no significant relationship with utilization. Major barriers identified included long waiting times, transportation difficulties, and lack of privacy/confidentiality. The most valued benefits were understanding HIV and ART benefits, making infant feeding decisions, and preventing mother-to-child transmission.

CONCLUSION

The study demonstrates that perceived benefits are the primary driver of mentor mother service utilization among HIV-positive childbearing women. While over half of the participants utilized these services, significant structural and logistical barriers persist that limit optimal

engagement. The findings suggest that mentor mother programs are valued across all demographic groups, with effectiveness dependent more on perceived utility than on individual characteristics such as age, parity, or marital status. The strong association between perceived benefits and utilization underscores the critical importance of effective communication about service value and addressing systemic barriers to access.

RECOMMENDATIONS

Program Implementation:

1. Reduce waiting times and improve scheduling flexibility
2. Develop transportation support programs
3. Create private, confidential communication channels
4. Expand service delivery modalities
5. Establish mentor mother training programs

Healthcare Providers:

1. Integrate mentor mother referrals into routine HIV care
2. Provide staff training on program benefits
3. Develop documentation systems for tracking outcomes

Policy:

1. Establish dedicated funding for peer support programs
2. Develop national implementation guidelines
3. Create certification mechanisms for mentor mothers

Future Research:

1. Longitudinal studies on maternal/infant health outcomes
2. Multi-site comparative effectiveness research
3. Digital health intervention trials

CONFLICT OF INTEREST

The author declares no conflict of interest.

ACKNOWLEDGMENTS

Gratitude to the HIV clinic management and staffs at AMTH and all study participants.

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