

Original Research Article

Assessment of Health Care Workers' Attitude towards PMTCT of HIV at Primary Health Care Center in Minna Metropolis, Niger State

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Abstract: Human immunodeficiency virus is grouped into the genus Lentivirus within the family of retroviridae, a subfamily of retrovirinae. Since its emergence, it has remained a global public health crisis with approximately 39.0 million (33.1 – 45.7 mil) people living with HIV globally in 2022, with some countries reporting increased trends in new infections and it is incurable. There has been documented success in decreasing new cases and mortality resulting from HIV/AIDS globally; however, in sub-Saharan Africa, the rate of new infections has increased disproportionately among young women. Thus, the region accounts for about 9 – 10 women and children living with HIV. Mother-to-child transmission (MTCT) of HIV occurs when HIV is transmitted from the mother to the child during pregnancy, childbirth, or breastfeeding, although the rate of MTCT of HIV in high-income countries has significantly reduced to less than 1% in some low-income countries, MTCT of HIV remains high at 8.9%, and about 90% of HIV infection in children occurs through MTCT of HIV. Prevention of Mother-to-child transmission (PMTCT) of HIV is recommended to curb the menace of MTCT of HIV (Falnes *et al.*, 2010). It involves a series of events, services, or interventions, which, when fully implemented, result in a reduction in the risk of mother-to-child transmission (MTCT) of HIV (Centers for Disease Control and Prevention, 2016) that involves the use of drugs and non-drug-related services. Health care workers play an important role in the provision of services and interventions aimed at reducing HIV transmission. Therefore, this study intends to Assess Health Care Workers' Attitude Towards PMTCT of HIV At Primary Health Care Center. The study is an institutional-based cross-sectional descriptive survey study. The sample size was calculated using the formula of Yamane (1967), a multistage sampling was used to select sampling unit. A self-administered closed-ended questionnaire was used as the instrument for data collection, all responses to the completed questionnaire were coded and entered into SPSS v25.0, edited, and checked accordingly. Descriptive statistics were used to describe the frequency distribution and measures of central tendency, whereas inferential statistics were used to determine the relationship between the study variables. The study finding reveals that the general attitude score of the respondents on PMTCT of HIV was Positive (3.1) and there is a statistically significant level of association between years of work and attitude ($p < 0.024$). In this study, it can be concluded that the level of health care workers attitude towards PMTCT of HIV was positive and there is a statistically significant level of association between years of work and attitude. This shows that health care workers with more year of working experience have a better attitude, this could be related to the fact that they have more contact time and training on PMTCT and HIV in general, it is recommended that further studies be conducted to explore the reason behind the statistical association above.

Keywords: Prevention of Mother-To-Child Transmission, HIV, Health Care Worker, and Attitude.

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INTRODUCTION

Human immunodeficiency virus is grouped into the genus *Lentivirus* within the family of *retroviridae*, a subfamily of *retrovirinae* (Luciw, 1996). Currently, available phylogenetic and epidemiological studies have shown that HIV was introduced into the human population between 1920 and 1940 (sharp & Hahn, 2011). Since its emergence, it has remained a global public health crisis with approximately 39.0 million (33.1 – 45.7 mil) people living with HIV globally in 2022, with some countries reporting increased trends in new infections (WHO, 2023) and it is incurable (Apakawari & Ugege, 2020). There has been documented success in decreasing new cases and mortality resulting from HIV/AIDS globally; however, in sub-Saharan Africa, the rate of new infections has increased disproportionately among young women (Arisegi *et al.*, 2017). Thus, the region accounts for about 9 – 10 women and children living with HIV (UNICEF, 2017), and women who are sexually active are more prone to HIV infection in their reproductive age (Hargrove *et al.*, 2011). The rate of this pandemic might continue to increase due to the persistence of MTCT in HIV (5/17). Mother-to-child transmission (MTCT) of HIV occurs when HIV is transmitted from the mother to the child during pregnancy, childbirth, or breastfeeding (WHO, 2017), although the rate of MTCT of HIV in high-income countries has significantly reduced to less than 1% (Peter H 2017); in some low-income countries, MTCT of HIV remains high at 8.9% (Mintsa-Ndong *et al.*, 2017), and about 90% of HIV infection in children occurs through MTCT of HIV (Birhane *et al.*, 2015). Prevention of Mother-to-child transmission (PMTCT) of HIV is recommended to curb the menace of MTCT of HIV (Falnes *et al.*, 2010). It involves a series of events, services, or interventions, which, when fully implemented, result in a reduction in the risk of mother-to-child transmission (MTCT) of HIV (Centers for Disease Control and Prevention, 2016) that involves the use of drugs and non-drug-related services. These services include increased access to ANC and provision of HIV testing during ANC, effective use of ART by women who are positive and pregnant, birth practices that are safe, appropriate infant feeding, infant HIV testing, and related services (Feyera *et al.*, 2017).

Healthcare workers (HCWs) play a key role in efforts directed toward ending HIV/AIDS as a global health problem (Yadzir *et al.*, 2021). However, difficulty in providing services related to PMTCT of HIV by healthcare workers due to fear of contagion is said to be linked to a decreased uptake of PMTCT of HIV services (Pitasi *et al.*, 2018; Spence *et al.*, 2022). Studies have shown that the negative attitude of HCWs toward PMTCT manifests through practices (Ogden & Nyblade, 2005) directed toward the provision of PMTCT of HIV services. It is of note that the researcher aimed to access the attitude of the HCW towards PMTCT of HIV services at PHC centers in Minna metropolis Niger state.

METHODOLOGY

The study is an institution-based cross-sectional descriptive survey study conducted in selected Primary Health care centers providing PMTCT of HIV services in Minna, Metropolis Niger. The study population comprised all healthcare workers working in the selected primary healthcare centers. The sample size was calculated using the formula of Yamane (1967), and a sample size of 113 was determined for the study. The sampling procedure involved a multistage sampling with proportionate allocation of samples to each selected health center based on its total population, and a simple random sample was used to select the sample unit at the Primary Health care center level until the total sample size was achieved. The instrument used for data collection was a self-administered closed-ended questionnaire that was adapted from the reviewed literature based on the study objective and is made up of two sections: section one provides sociodemographic information of the respondent, while section B consists of questions on a Likert-scale that elicit the attitude of the respondents. The questionnaire was pretested to ensure reliability, and its internal consistency was checked using Cronbach's alpha (α). A score of 0.8 was achieved. Data were collected using a questionnaire with the help of two research assistants (two Community Health extension workers) from each of the selected primary health care centers, with the researcher coordinating the process of data collection. The process of data collection and the objectives of the study were explained to the research assistants. After data collection, each questionnaire was checked for completeness, clarity, and accuracy and carefully reviewed. All responses to the completed questionnaire were coded and entered into SPSS v25.0, edited, and checked accordingly. Descriptive statistics were used to describe the frequency distribution and measures of central tendency, whereas inferential statistics were used to determine the relationship between the study variables. Ethical clearance was obtained from the Niger State Ministry of Health Ethical Committee, and an introductory letter from the Niger State Primary Health Care Development Agency was sent to each selected Primary Health care center. Before data collection, the objective of the study, possible risks and benefits of the study, and the right to voluntary participation and withdrawal were clearly explained to the respondents. Data collection began after obtaining written consent and anonymity and assuring confidentiality throughout the data collection process.

RESULT

Socio-Demographic Characteristics

The findings from the descriptive analysis of the health workers' social and demographic characteristics were as follows:

Table 1: Socio-Demographic characteristics of the health care workers (n= 124)

Variable	Frequency	Percent (%)
Gender		
Male	42	33.9
Female	82	66.1
Age (years)		
21-30	49	39.5
31-40	44	35.5
41-50	20	16.1
51>	11	8.90
Marital status		
Married	88	71.0
Single	36	29.0
Divorce	0	0.00
Professional qualification		
CHEW	47	37.9
CHO	28	22.6
Doctors	12	9.70
Health assistant	13	10.5
Nurses	15	12.1
Midwives	9	7.30
Duration of work experience (Years)		
0-5	46	37.1
6-10	34	27.4
11>	44	35.5

The table 1 shows that 82 (66.1%) of the health workers were female as compared. It also shows that the marital status reported by health workers in the study, out of the 124 health workers, 88 (71%) indicated that they were married. The age distribution of health workers across all the health centers. The mean age of the health workers was 30, ± 3.5 years and the age range were 21 to 50> years. Most of the health workers were in the ages between 21 to 30 years 49 (39.5%) and 31 to 40 years 44 (35.5%). This was followed by health workers in the age group 41 to 50 years 20 (16.1%) and 50 > years representing 11 (8.9%) respectively. The professional qualifications of health workers recruited in the study as shown in Table 1 above shows that 47 (37.9%) of the participants in this study were registered community health extension workers, 28 (22.6%) community health officers, 15 (12.1%) of the participant are nurses, 12 (9.7%) of the participant are doctors, health assistant represent 13(10.5%) of the participant while 9 (7.3%) are midwives. The mean duration of work experience was 2.8 years with a range from less than a year to 11< years. Table 1 shows that 46 (37.1%) health workers had practiced for a period of between less than 1 to 5 years, 44 (35.5%) of the health workers had practiced for 11< years while 34 (27.4%) practiced for between 6 and 10 years.

The Attitude of the Health Workers to PMTCT of HIV

Table 2: Distributions of attitudes of the health care workers (n=124).

Variable	Responses								
	S/A		A		D		S/D		Mean (2.5)
	Frq	%	Frq	%	Frq	%	Frq	%	
A woman who is HIV positive has the right to have children.	98	79.0	19	15.3	6	4.8	1	0.8	3.7
HIV testing be offered to a pregnant woman.	120	96.8	4	3.2	0	0.0	0	0.0	3.9
Healthcare workers care for and support HIV pregnant women.	106	85.8	15	12.1	3	2.4	0	0.0	3.8
Fear of contagion stops you from providing care to HIV-positive pregnant women.	19	15.3	7	5.6	12	9.7	86	69.4	1.7
PMTCT program protects the child from contracting HIV infection from his mother.	120	96.8	4	3.2	0	0.0	0	0.0	3.9
PMTCT program is very important in women's clinics.	102	82.3	17	13.7	5	4.0	0	0.0	3.7
Providing PMTCT services stop you from providing good ANC care.	0	0.0	0	0.0	34	27.4	90	72.6	1.3
Enough time is not given to the PMTCT program.	47	37.9	8	6.4	0	0.0	69	55.6	2.3

Variable	Responses								
	S/A		A		D		S/D		Mean (2.5)
	Frq	%	Frq	%	Frq	%	Frq	%	
Educating HIV-positive mothers is a confidential issue.	86	69.4	12	9.7	7	5.6	19	15.3	3.3
Health care workers look down on HIV-positive mothers.	90	72.6	34	27.4	0	0.0	0	0.0	3.8
HIV prophylaxis given to the mother during pregnancy reduce the rate of MTCT of HIV.	69	55.6	12	9.7	8	6.4	35	28.2	2.9
Infant feeding counseling helps an HIV-exposed child.	76	61.3	30	24.2	12	9.7	6	4.8	3.4
Aggregate mean score									3.1

*HCW = Health care worker. * PMTCT = Prevention of mother-to-child transmission

*SA = Strongly Agree. *A= Agree. *D= Disagree. * Strongly Disagree

The general attitude score of the respondents on PMTCT of HIV was Positive 3.1 but on the PMTCT program Negative (1.9). From the table (Table 2) above, 117 (94.4%) of the respondent are in agreement that HIV-positive mothers should have children, and 98 (95.7%) agreed that fear of contagion stops them from caring for HIV-positive pregnant women. Though all (100%) of the respondent are on agreement that PMTCT services help to protect the child from MTCT of HIV and 109 (96%) are on agreement that PMTCT services are important in ANC clinics, only 81 (95.7%) agreed that provision of ARV prophylaxis and 106 (85.5%) infant feeding counseling help protect the child from MTCT of HIV.

Table 3

Duration of Service (years)	Attitude of the health care workers to PMTCT of HIV.							P value (χ ²)
	Positive		Negative		Neutral			
	Frq	%	Frq	%	Frq	%		
0-5	36	78.3	10	21.7	0	0.0	0.024*	
6-10	22	64.7	10	29.4	2	5.9		
11<	23	52.3	14	31.8	7	15.9		

From the table (Table 3) above, there is a statistically significant level of association between years of work and attitude (p<0.024).

DISCUSSION

Findings from the study revealed that the respondents had a positive attitude towards PMTCT of HIV with a mean score of 3.1, which is in agreement with a study by Isah *et al.*, (Isah *et al.*, (2022) reported that respondents had a positive attitude towards PMTCT of HIV, which is supported by a study by Yadzir, Ramly, & Suleima (2021), whose findings reported that the respondents had a favorable attitude, but dissimilar to a study by Nkwabong *et al.*, (2018) who reported negative attitudes towards PMTCT among the respondents.

The study also reveals that there is a statistically significant association between years of work experience and the attitude of the respondents towards PMTCT of HIV. This finding is corroborated by a study with similar objectives by Nkwabong *et al.*, (2018), who reported a statistically significant association between years of work experience and attitudes. But this finding is not in agreement with a study by (Yadzir, Z.H., Ramly, M., & Suleiman, A., 2021, Haji, B., *et al.*, 2022) who all reported no statistically significant association between years of work experience and attitude.

The study had several limitations, which should be considered, including the over-resilience of the study on self-reported responses, and this is subject to social desirability and reporting biases. In addition, the study only focused on government-owned health facilities without considering those in the private sector, who may have other views.

CONCLUSION

The study revealed a positive attitude and a significant association between years of work experience and attitude.

Conflict of Interest: The authors have declared no conflict of interest

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