



Knowledge and Attitudes towards Preventive Measures of Mother-To-Child Transmission of HIV/AIDS among Expectant Mothers at the Federal Medical Centre, Katsina State, Nigeria

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Abstract

Introduction: Adequate knowledge and the right attitudes towards preventive measures of mother-to-child transmission of HIV/AIDS will ever stand against the spread of HIV/AIDS and even via MTCT.

Aim: Following this assertion, this study examined knowledge and attitudes towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State, Nigeria, where three hypotheses were tested to provide vital recommendations.

Methods: The cross-sectional type of research design was used in this study. The target population was lifted from the whole population, yielding to the sample size of 67 participants. A self-constructed four points Likert-Scale questionnaire was used to collect information in this study. All data generated were tested, using Chi-square and correlation coefficient and all hypotheses were tested at 0.05 level of significance.

Results: There is a significant knowledge of and positive attitude towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State, Nigeria ($p < 0.05$). Also, there is a significant correlation between knowledge and attitude towards preventive measures of mother-to-child transmission of HIV/AIDS among participants ($p < 0.05$).

Conclusion: Based on the results of this study, it is concluded that the participants have adequate knowledge of and positive attitudes towards preventive measures, recommending that the participants should maintain their level of knowledge and attitudes towards preventive measures of MCTC of HIV/AIDS for HIV/AIDS-free society.

Keywords: Knowledge, attitudes, preventive measures, mother-to-child transmission and expectant mother.

Introduction

Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) is the scourge or pandemic that is ravaging the world of

humanity at a speedy pace, using mother-to-child transmission (MTCT) among other modes of transmission. Mother-to-child transmission (MTCT) of HIV/AIDS is seen as a mode or period

when an HIV- infected mother transfers the virus to her baby or common means of acquiring pediatric HIV infection during the pregnancy, labour, delivery or breastfeeding^[10,14]. This pitiful and sympathizing situation can be averted through the preventive measures of MTCT of HIV/AIDS, which of course oppose treatments of the infection^[3], saw prevention measures of mother-to-child transmission of HIV/AIDS as a sound health programme that provides a lot of services for the women at child-bearing age living with or highly susceptible to HIV/AIDS infection to preserve their health and at the same time stop or prevent their infants from contracting HIV/AIDS. Preventive measures of MTCT of HIV/AIDS offer a range of services such as HIV counselling and testing (HCT) at the antenatal units and maternity wards, antiretroviral drug therapy, comprehensive antenatal care and safer delivery practices, appropriate infant feeding, counselling and support^[1]. The anticipating challenges in this phase of fights against HIV/AIDS could be the knowledge and attitudes of expectant mothers (pregnant women in the absence of argument or controversies) towards the available preventive measures of MTCT of HIV/AIDS. The knowledge of preventive measures of MTCT of HIV/AIDS is just a practical understanding or familiarity gained on prevention of mother-to-child (PMTCT) of HIV/AIDS services to halt the spread of the infection to the babies at their early lifetime^[26]. This knowledge collaborates with the attitude which is the manner or feeling of one like the pregnant woman on PMTCT of HIV/AIDS services to produce better results. Mothers' knowledge including their attitudes on preventive measures of MTCT of HIV/AIDS play significant roles in preventing and controlling the HIV/AIDS transmission from the infected mothers to their babies^[20].

So, it is expedient to note that the level of knowledge and attitudes towards preventive measures of MTCT of HIV/AIDS and their adequacy perhaps could not be the same across the globe. For example, a study put it that Chinese

students were more knowledgeable about the prevention services of all modes of transmission including MTCT of HIV/AIDS compared to their foreign counterparts in many factors^[16]. The researchers further illustrated through their finding that the Chinese students had 95.6 percent against 49.68 percent of the foreign students in the knowledge of prevention care of HIV/AIDS. Besides, ten European countries plus the United States of America reported 85 percent of knowledge of prevention of HIV/AIDS (Joint United Nations Programme on HIV and AIDS^[2,24]). Meanwhile, the finding of a study revealed that the proportion of women possessing comprehensive prevention knowledge of MTCT of HIV/AIDS in Nigeria was 7.5 percent of the national population, while that of the Mali and Lesotho were 10.3 percent and 11.8 percent respectively^[5].

The percentage of women who could identify all preventive measures of HIV/AIDS by the five modes of HIV/AIDS transmission was high in European countries of Belarus (34.98%) and Ukraine (31.67%) revealing their positive attitudes towards the services^[11]. It was attitudes that determine the uptake of PMTCT services observed between developed countries and developing countries as several studies from different parts of the world revealed the uptake of PMTCT services was to be 53 percent in North America, Europe (62%) and South America (63%), while surprisingly, the highest levels of uptake were in Africa with 84 percent and Asia with 84 percent^[2, 15, 24, 25].

In Nigeria, expectant women wished to have healthy babies free from HIV/AIDS. However, it is assumed that Nigerian expectant women do not have good knowledge and right attitudes towards preventive measures of MTCT of HIV/AIDS to achieve their wishes. For example, the findings of^[17], in Ilorin and^[19], in Oshogbo south western, Nigeria showed that the participants had inadequate knowledge of preventive measures of MTCT of HIV/AIDS and poor attitudes towards PMTCT of HIV services respectively. From these

assertions, it also presumed that expectant mothers in Katsina State are not exempted from this pitiable and piteous situation. Hence, the expectant mothers were observed to shy away from any issues related to HIV/AIDS in the clinics. Based on this setting which no studies before now can account for, this study investigated knowledge and attitudes towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State.

Research Questions

1. Do expectant mothers at the Federal Medical Centre (FMC), Katsina State know preventive measures of mother-to-child transmission of HIV/AIDS?
2. Will there be a positive attitude towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State?
3. Will there be a significant correlation between knowledge and attitudes on preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State?

Hypotheses

The following hypotheses are formulated to guide this study:

Major hypotheses

H₀₁. There is no significant knowledge of preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centres (FMC), Katsina State.

H₀₂. There is no positive attitude towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State.

Sub-hypothesis

H₀₁. There is no significant correlation between knowledge and attitudes of expectant mothers towards preventive measures of mother-to-child transmission of HIV/AIDS at the Federal Medical Centre, Katsina State.

Methods

The cross-sectional type of descriptive research design was used in this study. The population of this study comprises all expectant mothers receiving antenatal services at the FMC, Katsina State as of December, 2018 - February, 2019. The whole population was 452 expectant mothers, while expectant mothers at their second trimester formed the target population that was estimated to be 96 expectant mothers in this study. The sample size of this study was 67 participants, using the judgmental sampling technique which enabled the researchers to include expectant mothers at their second trimester and exclude all expectant mothers at their first and third trimesters from this study.

A systematic sampling technique was used to reach the participants at an interval of two from the target population until the established sample size of 67 participants was obtained. A self-constructed four points Likert-scale questionnaire called Knowledge and Attitudes towards Preventive Measures of Mother-To-Child Transmission of HIV/AIDS among Expectant Mothers (KA-PMMTCT-HIV/AIDS-EM) was used to collect information in this study. The instrument contains two sections (A &B). Section A, sought information on knowledge, while section B, sought information on attitudes of the expectant mothers towards preventive measures of MTCT of HIV/AIDS. In the analysis and decision rules in this study, a test is significant if the probability value is less than the level of significance ($p\text{-value} < 0.05$) and a test is not significant if the probability value is equal or greater than the level of significance ($p\text{-value} \geq 0.05$).

The tool for the data collection was validated by four lecturers from the Department of Physical and Health Education, Isa Kaita College of Education, Dutsin-Ma, Katsina State. The split-half method of reliability was used in which the odd-half was correlated against the even-half at which, 0.67 reliability index was obtained before the pilot test. Two female medical personnel were used in this study as research assistants, who helped to administer the questionnaire copies and collect the duly filled copies within six weeks. The information generated was subjected to the

statistical tools of Chi-square and correlation (Pearson Product Moment Coefficient). All hypotheses were tested at 0.05 level of significance, using the Statistical Packages for Social Sciences (SPSS), 23.00 version.

Results

MajornH₀₁. There is no significant knowledge of preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre (FMC), Katsina State.

Table 1 Summary of the Chi-square test on knowledge of preventive measures of MTCT of HIV/AIDS

Variables	Observed N	Expected N	Df	χ^2	P-value
Low knowledge	32	48.5	1	11.227	.001
High knowledge	65	48.5			
Total	97				

*It is significant at 0.05

Table 1 shows that the p-value is less than the level of significance set in this study ($p < 0.05$). Therefore, the hypothesis which stated that there is no significant knowledge of preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre (FMC), Katsina State is rejected. Hence, there is a significant knowledge of preventive measures of mother-to-child

transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State ($p = .001 < 0.05$).

H₀₂. There is no significant positive attitude towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State.

Table 2 Summary of Chi-square test on attitude towards preventive measures of MTCT of HIV/AIDS

Variable	Observed N	Expected N	Df	χ^2	p-value
Negative attitude	25	48.5	1	22.773	.001
Positive attitude	72	48.5			
Total	97				

*It is significant at 0.05

Table 2 shows that the p-value is less than the level of significance set in this study ($P > 0.05$). The hypothesis which stated that there is no significant positive attitude towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State is rejected. Therefore, there is a significant positive attitude

towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State ($p = .001 < 0.05$).

Sub-hypothesis H₀₁. There is no significant association between knowledge and attitude of expectant mothers towards preventive measures of mother-to-child transmission of HIV/AIDS at the Federal Medical Centre, Katsina State.

Table 3. Correlation test between knowledge and attitude of expectant mothers

Variables	Mean	Std. Deviation	N	r	p-value
Knowledge	30.55	4.843	97	.447**	.001
Attitude	32.21	4.730	97		
Total			97		

*It is significant at 0.05 level (2-tailed).

Table 3 shows that the correlation between knowledge and attitude was a relatively high perfect positive correlation ($r = .447$). It also shows that the p-value is less than the level of significance set in this centre ($p < 0.05$). The hypothesis which stated that there is no significant association between knowledge and attitude of expectant mothers towards preventive measures of

mother-to-child transmission of HIV/AIDS at the Federal Medical Centre, Katsina State is rejected. Therefore, there is a significant association between knowledge and attitude of expectant mothers towards preventive measures of mother-to-child transmission of HIV/AIDS at the Federal Medical Centre, Katsina State ($p = .001 < 0.05$). (See Figure 1 for the scatter plot).

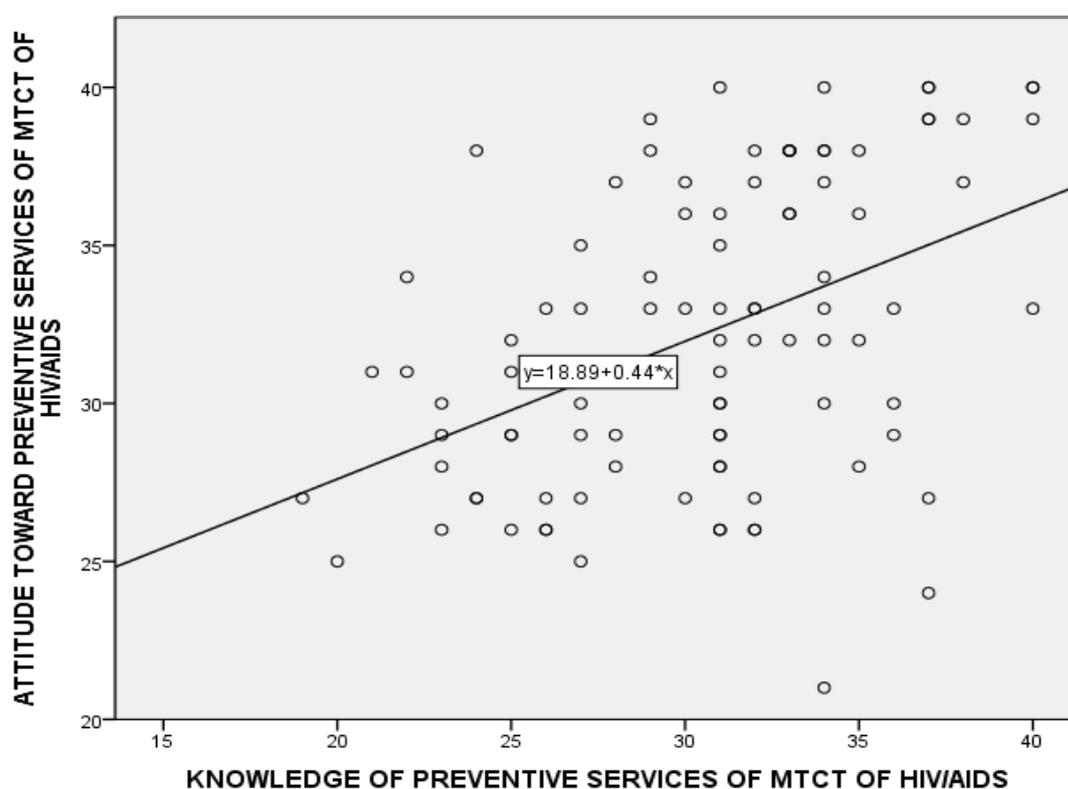


Figure 1 Scatter plot of knowledge and attitude to preventive measures of MTCT of HIV/AIDS

Discussion

The outcomes of this study provide a piece of first-class information on knowledge and attitudes towards preventive measures of MTCT of HIV/AIDS more especially on expectant mothers at the Federal Medical Centre, Katsina State, Nigeria. Coherently, the finding of this study reveals that there is a significant knowledge of preventive measures of mother-to-child

transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State ($p = .001 < 0.05$). This present finding is congruent with the findings of several studies conducted in Gulu Municipality, Uganda, Osogbo, South western Nigeria, Addis-Ababa, Ethiopia, Abia State, Nigeria, Tanzania, West Ethiopia, Northwest Cameroon, which revealed that there was a significant knowledge of preventive

measures of MTCT of HIV care among pregnant women ($p < 0.05$) [6, 7, 8, 12, 18, 19, 20, 22].

However, the finding of this present study does not collaborate with the finding of a study in Kisii County, Kenya, which revealed that there was no significant knowledge of preventive measures of MTCT of HIV among participants ($p > 0.05$) as 52 per cent of the respondents did not know about preventive measures of MTCT of HIV/AIDS services which were being offered in the hospitals^[13]. The researchers suggested that the finding of this study is so because the participants are an integral part of the society where the campaigns and health education or enlightenment on preventive measures against MTCT of HIV/AIDS are being carried out on media daily.

The finding of this study shows that there is a significant positive attitude towards preventive measures of mother-to-child transmission of HIV/AIDS among expectant mothers at the Federal Medical Centre, Katsina State ($p = .001 < 0.05$). In collaboration, this finding joins with the finding of a study in Ethiopia, Ibadan, Nigeria, Sudan and others [4, 7, 8, 9, 10, 23,21]. However, the finding of this present research disagrees with the finding of^[19], which showed that there is no significant attitude towards preventive measures of MTCT of HIV/AIDS, as 71.27 per cent had poor attitudes towards preventive measures of MTCT of HIV/AIDS. In this light, the researchers opined that this finding is so because the participants do not have ill-feelings or mind-sets for their health and that of their unborn babies. Therefore, this state induced them to have a positive attitude towards preventive measures of MTCT of HIV/AIDS to be free from the disease.

Furthermore, the finding of this study reveals that there is a significant association between knowledge and attitude of expectant mothers towards preventive measures of mother-to-child transmission of HIV/AIDS at the Federal Medical Centre, Katsina State ($p = .001 < 0.05$). Hence, this finding is in line with the finding of a study in Ethiopia^[22]. Following this fact., the researchers believe that the finding stands for one's awareness

could influence her feeling particularly in the area of PMTCT of HIV/AIDS services as a safety obligation.

Conclusion

Following the findings linking to the aims of this study, it is concluded that there is significant knowledge and attitude towards preventive measures of MTCT of HIV/AIDS among participants and a strong positive perfect correlation was found between the two variables (knowledge and attitude).

Recommendations

The following recommendations are put forward following the aims and findings of this study:

1. The participants should maintain their level of knowledge of preventive measures of MCTC of HIV/AIDS.
2. They should also maintain their positive attitude towards preventive measures of MTCT of HIV/AIDS.

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