



Socio-Demographic Difference in Practices of PMTCT of HIV Guidelines among Postnatal Mothers in Ikwerre Local Government Area of Rivers State

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ABSTRACT

This study investigated socio-demographic difference in practices of PMTCT of HIV guidelines among postnatal mothers in Ikwerre Local Government Area of Rivers State. The study adopted a descriptive survey design and used random sampling techniques to select 550 post natal mothers. Chi-square and ANOVA test was used for testing the hypotheses at 0.05 level of significance. The finding of the study revealed that 310(62.0%) of the respondents had good practice of PMTCT guidelines. The tested hypotheses revealed a statistically significant difference between the. The finding of the study also revealed a significant difference between practice of PMTCT guideline among postnatal mothers based on age (X^2 -value = 38.800; df = 2; $p < 0.05$), marital status (X^2 -value = 28.706; df = 3; $p < 0.05$), parity (X^2 -value = 62.778; df = 3; $p < 0.05$) and access to health care facility (X^2 -value = 20.010; df = 3; $p < 0.05$). It was concluded that postnatal mothers had good practices of PMTCT of HIV guideline and that age, marital status, parity and access to health facility influences practices of PMTCT of HIV guidelines among postnatal mothers. It was recommended amongst others that the Government, ministries of health and non-governmental organizations at all level should mount more intensive enlightenment campaigns through public talk, seminars, conferences and workshop to create more awareness on the need to bridge knowledge gap of PMTCT of HIV guideline among antenatal and postnatal mothers

Keywords: Socio-demographic, Practices, PMTCT, HIV, Postnatal mothers.

Introduction

Postnatal service is a major means of providing care for both the child and the mother to improve their wellbeing. At the current prevalence level of HIV in Nigeria, the Federal Ministry of Health, Technical Report (2008) and National Policy on HIV/AIDS (2009) revealed that 2.95 million people in Nigeria are currently infected with HIV: heterosexual transmission accounts for about 80% of all infections and 10% of HIV infections are transmitted through Mother-To-Child Transmission (MTCT) while about 10% is transmitted by the use of unsterilized needles and equipment infected with blood and blood products. Mother-To-Child Transmission of HIV infection is also known as vertical transmission of HIV which occur during pregnancy, childbirth, breastfeeding and so on. The national policy on HIV/AIDS (2009), estimated that 1.72 million women 15-49 years old and 278,000 children in Nigeria were living with HIV and more than 90% of the HIV infection among children occur through Mother-To-Child Transmission (MTCT). However the frequency at which is affected by predisposing and reinforcing factors including high viral load, mode of delivery, prolonged ruptures of membranes, prematurity and breastfeeding among others. Most times pregnant women who are not educated about the transmission of HIV may likely come down with the health outcome because of limited knowledge of mode of prevention of HIV infection. In the light of this, studies of Balogun and Odeyemi (2010) affirmed that there was significant association between educational status and level of knowledge of respondents. That is, pregnant women with good level of knowledge of HIV prevention might involve in the prevention of Mother-To-Child Transmission (MTCT). It may be significantly clear that most nursing mother who has formal education had good knowledge about sexual transmission of HIV when compared to those of them with no formal education. Knowledge is seen as a potential tool for positive change in all aspect of human kind. Okike, et al, (2011) asserted that pregnant women

living with HIV infection have increased risk of transmitting HIV to their babies. Therefore, pregnant women with positive attitude may effectively practice the prevention of Mother-To-Child Transmission (MTCT) of HIV infection if they seek knowledge from antenatal clinic. Good proportion of married women may likely visit antenatal clinic to obtain medical check-up due to their partner's support more than the unmarried counterpart. Studies of Onalu et al (2019) reported that 69.8% of married pregnant women utilize PMTCT of HIV services. Marital status are more significant effect with the uptake of PMTCT of HIV services. Evidence shows that 84.9% of married women are knowledgeable on MTCT are aware of it (Birhane, et al, 2015). Also, study of Achigua (2013) affirmed that pregnant women who are married with husband support are 16 times most likely to utilize PMTCT services (AOR = 16.2) as compared with unmarried women or those with husband support. Good proportion of pregnant mothers who reside far from the health facility may not be eager to attend postnatal services as compared with women who live close to the antenatal clinic. Studies of Birhane et al (2015) posited that women who are resident of urban areas were about 4 times more likely to know about MTCT of HIV because of numerous health facilities close to them as compared with those who live in the rural region. Evidence shows that work distance had a significant relationship with the number of ANC visits among pregnant women ($P < .005$) (Zegeye, et al, 2018). Studies of Nwaneri et al (2018) reported that (59.6%) of women reside in the urban areas while few (10.3%) lived close to the health facility, 33.8% stayed moderately far away, while 55.9% of women lived a long distance away from the facility. Women who visit PMTCT service for first time are less chances to use the service due to distance (AOR = 0-1, $P = 0.048$) (Kevin et al 2014). There is increase level of infants mortality caused by HIV/AIDS because of mother's failure to attend antenatal clinic.

There is a slow reduction of HIV infection among children and women of reproductive age because of inability to access the primary health care facility due to low level of PMTCT service. Currently Rivers State ranked third to the highest HIV prevalence in Nigeria which accounted for 4.8% in which Ikwerre Local Government Area of Rivers State contributed to the increase. The level of poverty, unemployment and low level of education are highly noticed in the area which yields low socioeconomic status and level of knowledge of preventive strategies especially among pregnant women. Socio economic factors such as unemployment, low income status, may affect Prevention of Mother-To-Child Transmission because most pregnant women feel that antenatal service is more expensive.

Aim of the Study

The main purpose of this study was determine the socio-demographic influences in practices of PMTCT of HIV guideline among postnatal mothers in Ikwerre Local Government Area of Rivers State. This study sought to:

1. examine the practices of PMTCT guideline among postnatal mothers Ikwerre Local Government Area of Rivers State.
2. examine the practices of PMTCT guideline among postnatal mothers based on socioeconomic status, marital status, age, level of education and access to health care facility in Ikwerre Local Government Area of Rivers State.

Research Questions

The following research questions were formulated to guide this study

1. What is the practice of PMTCT guideline among postnatal mothers in Ikwerre Local Government Area of Rivers State?
2. What is the practice of PMTCT guideline among postnatal mothers based on socioeconomic status, marital status, age, level of education, access to health care facility in Ikwerre Local Government Area of Rivers State?

Hypothesis

The following null hypothesis was tested at 0.5 level of significance.

1. There is no significant difference between practices of PMTCT guideline among postnatal mothers based on socioeconomic status, marital status, age, level of education, access to health care facility in Ikwerre Local Government of Rivers state.

Methodology

A descriptive cross sectional survey design was adopted for this study. The population of women aged 15-64 years for the study was one hundred and sixteen thousand and five (116005).

The maximum sample size of the study 550 which was estimated using YaroYamene method for large population.

$$\text{Formula: } N = \frac{N}{1+N(e)^2}$$

A multi-stage sampling procedure was implemented for the study in three stages.

Stage one: Simple random sampling technique was used to select Ikwerre Local Government of Rivers State without replacement by balloting.

Stage two: Cluster sampling technique was adopted to select mothers within the age of 15-64 years who attends postnatal in modern primary health care centre (MPHCC) from local government area of the study

Stage three: purposive random sampling was employed to select mothers who have put to birth from Ikwerre Local Government Area.

Instrument for data collection.

Structured questionnaire was adapted to obtained information for the study. The questionnaire comprised of section A and B respectively. Section A revealed information from the respondents about their socio-demographic characteristics while section B information about the practice of PMTCT of HIV guidelines.

Validation of the instrument

The instrument was presented for face, content and constructs validity to the supervisor and three other experts from the department of Human Kinetics Health and Education safety. All corrections were implemented. Hence the instrument was valid for the study. The reliability index was determined using Pearson Product Moment Correlation (PPMC) and the value of, $r = 0.86$ may be obtain. Hence the instrument was reliable for the study

Procedure for data analysis

Data collected was analyzed using Statistical Products Service Solutions (SPSS) version 23.0.

Descriptive statistical tools such as frequency count, percentage, and inferential tools such as t-test, chi- square and ANOVA were employed to determine their influence in the variables of the study

Result and Discussion of findings

Results: Socio-demographic data of postnatal women

Table 1: socio-demographic data of respondents

Variables	Frequency (n=500)	Percentages
Age		
15-20 years	4	0.8
21-30 years	246	49.2
31-40 years	98	19.6
41-50 years	152	30.4
Mean age	32.73	
Marital status		
Married	235	47.0
Single	156	31.2
Divorced	109	21.8
Religion		
Christians	387	77.4
Muslims	49	9.8
Traditional	38	7.6
Others	26	5.2
Parity		
0-1 years	190	38.0
2-3 years	158	31.6
5-7 years	122	24.4
10 years and above	30	6.0
Access to health facility		
very close	194	38.8
Close	199	39.8
Far	50	10.0
too far	57	11.4

Table 4.1 shows the socio-demographic data of respondents. The results showed that 4(0.8%) of the respondents are 15-20 years, 246(49.2%) are 21-30 years, 98(19.6%) 31-40 years and 152(30.4%) 41-50 years. 235(47.0%) are married, 156(31.2%) are single while 109(21.8%) are divorced. On religion, 387(77.4%) indicated they are Christians, 49(9.8%) muslims, 38(7.6%) traditional while 26(5.2%) indicated other religion. 190(38.0%) of the respondents had a parity of 0-1 year, 158(31.0%) 2-3 years, 122(24.4%) 5-7 years and 30(6.0%) 10 years and above. 194(38.8%) disclosed that they have a very close access to health facility, 199(39.8%) indicated close, 50(10.0%) indicated far and 57(11.4%) indicated too far.

Bar chart showing the overall practices of PMTCT guideline among postnatal mothers

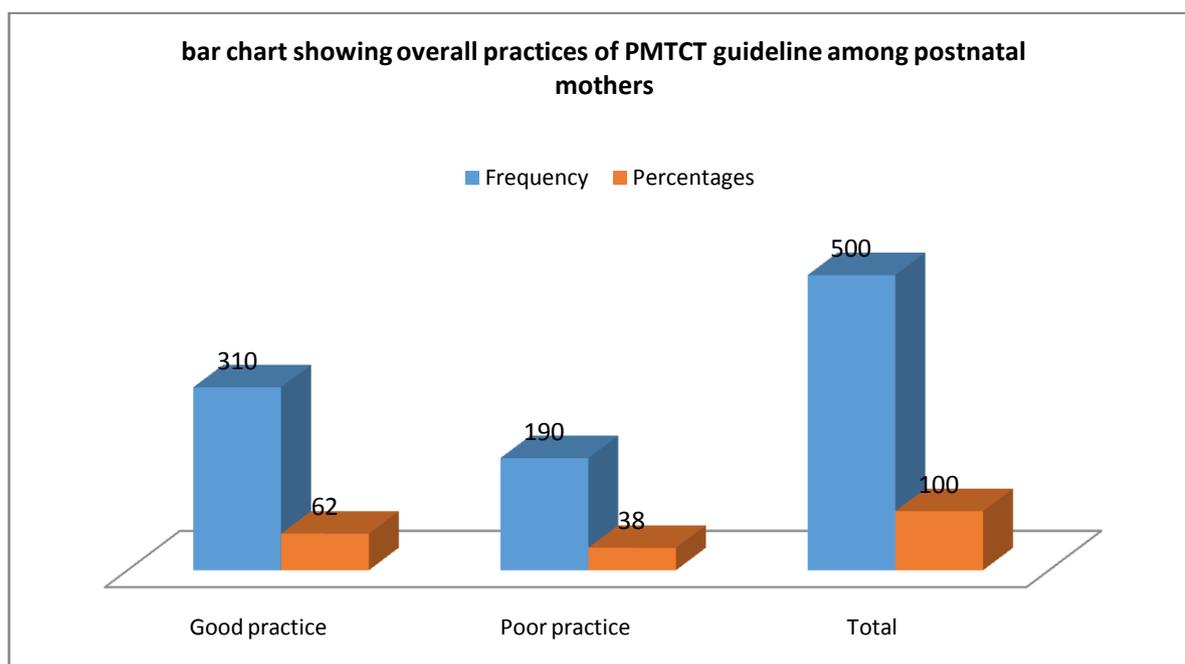


Figure 1 showed the overall practice of PMTCT guidelines among postnatal mothers in Ikwerre Local Government Area of Rivers State. The results showed that 310(62.0%) of the respondents had good practice of PMTCT guidelines while 190(38.0%) had poor practice.

Research question 2: What is the level of practice of PMTCT guideline among postnatal mothers based on age, marital status, parity and access to health facility in Ikwerre Local Government Area of Rivers State?

Table 3 Practices of PMTCT guideline among postnatal mothers based on age, marital status, parity and access to health care facility

Variables	Practice of PMTCT	
	Good Freq(n) %	Poor Freq(n) %
Age		
15-20 years	0(0.0)	4(100)
21-30 years	141(57.3)	105(42.7)
31-40 years	51(52.0)	47(48.0)
41-50 years	118(77.6)	34(22.4)
Total	310(62.0)	190(38.0)
Marital status		
Married	155(66.0)	80(34.0)
Single	95(60.9)	61(39.1)
Divorced	60(55.0)	49(45.0)
Total	310(62.0)	190(38.0)
Parity		
0-1 years	119(62.6)	71(37.4)
2-3 years	120(75.9)	38(24.1)
5-7 years	71(58.2)	51(41.8)
10 years and above	0(0.0)	30(100)
Total	310(62.0)	190(38.0)
Access to health facility		

very close	143(73.7)	51(26.3)
Close	107(53.8)	92(46.2)
Far	31(62.0)	19(38.0)
too far	29(50.9)	28(49.1)
Total	310(62.0)	190(38.0)

Table 3 showed the practice of PMTCT guideline among postnatal mothers based on age, marital status, parity and access to health facility. The results showed that among marital status, 155(66.0%) of married, 95(60.9%) of single and 60(55.0%) of divorced had good practice of PMTCT guidelines. Among age of respondents, 141(57.3%) of those aged 21-30 years, 51(52.0%) 31-40 years and 118(77.6%) had good practice of PMTCT guidelines. For parity, 119(62.6%) of 0-1 years, 120(75.9%) of 2-3 years and 71(58.2%) of 5-7 years had good practice of PMTCT guidelines. For access to health facility, 143(73.7%) who are very close, 107(53.8%) who are close, 31(62.0%) who are far and 29(50.9%) who are too far had good practice of PMTCT guidelines.

The finding of the study revealed that 310(62.0%) of the respondents had good practice of PMTCT guidelines. This shows that more than half of the respondents had better practices of PMTCT guidelines. The finding of the study corroborates with the studies of Nwaneri et al (2018), Abter et al (2017) and Ogbonna et al (2016). These studies revealed that mothers had good practices of PMTCT guidelines. The studies of Abajohir and Zeleke (2013) and Alemu et al (2018) also confirms the finding of the present study as they reported that post natal mothers had good practices of PMTCT guidelines. This indicates that slightly, mothers must have been adhering to these guidelines during their antenatal and post natal. The finding of the study is also in line with the studies of Olugbenaga-Bello et al (2013), Okike et al (2011) and Qwoaje et al (2012) whose studies discovered that mothers had good practice of PMTCT guidelines. To support other studies, the finding of the study also attests to that of Eze (2015) and Momodu (2014) whose studies reported a better practice of PMTCT guidelines among post natal mothers. Hence, the practices reported between these studies is might be associated to the fact that antenatal and post natal instructions and proceedings must have contributed to better compliance of PMTCT guidelines. Additionally, the mandatory health education by healthcare providers and strict compliance to these guidelines by both parties must have played an important role.

Hypothesis 1: There is no significant difference between practice of PMTCT guideline among postnatal mothers based on marital status, age, parity and access to health care facility in Ikwerre Local Government Area of Rivers Status.

Table 4.7: Chi-square test showing significant difference between practices of PMTCT guideline among postnatal mothers based on marital status, age, parity and access to health care facility in Ikwerre Local Government Area of Rivers Status

Variables	Practice of PMTCT		Df	χ^2 (p-value)
	Good Freq(n) %	Poor Freq(n) %		
Age				
15-20 years	0(0.0)	4(100)	2	38.800 0.014*
21-30 years	141(57.3)	105(42.7)		
31-40 years	51(52.0)	47(48.0)		
41-50 years	118(77.6)	34(22.4)		
Total	310(62.0)	190(38.0)		
Marital status				
Married	155(66.0)	80(34.0)	3	28.706 0.000*
Single	95(60.9)	61(39.1)		
Divorced	60(55.0)	49(45.0)		
Total	310(62.0)	190(38.0)		
Parity				
0-1 years	119(62.6)	71(37.4)	3	62.778 0.000*
2-3 years	120(75.9)	38(24.1)		
5-7 years	71(58.2)	51(41.8)		
10 years and above	0(0.0)	30(100)		
Total	310(62.0)	190(38.0)		
Access to health facility				
very close	143(73.7)	51(26.3)	3	20.010 0.000*
Close	107(53.8)	92(46.2)		
Far	31(62.0)	19(38.0)		
too far	29(50.9)	28(49.1)		
Total	310(62.0)	190(38.0)		

*Statistical significant (p<0.05); $\chi^2=Chi-Square$

Table 4.7 revealed the Chi-square test showing significant difference between practice of PMTCT guideline among postnatal mothers based on marital status, age, parity and access to health care facility in Ikwerre Local Government Area of Rivers Status. The result showed a

significant difference between practice of PMTCT guideline among postnatal mothers based on age (X^2 -value = 38.800; df = 2; $p < 0.05$), marital status (X^2 -value = 28.706; df = 3; $p < 0.05$), parity (X^2 -value = 62.778; df = 3; $p < 0.05$) and access to health care facility (X^2 -value = 20.010; df = 3; $p < 0.05$) in Ikwerre Local Government Area of Rivers State. Therefore, the null hypothesis which states that there is no significant difference between practice of PMTCT guideline among postnatal mothers based on marital status, age, parity and access to health care facility in Ikwerre Local Government Area of Rivers State was rejected.

The finding of the study revealed a significant difference between practice of PMTCT guideline among postnatal mothers based on age (X^2 -value = 38.800; df = 2; $p < 0.05$), marital status (X^2 -value = 28.706; df = 3; $p < 0.05$), parity (X^2 -value = 62.778; df = 3; $p < 0.05$) and access to health care facility (X^2 -value = 20.010; df = 3; $p < 0.05$). This shows that age, marital status, parity and access to health facility influences practices of PMTCT guideline among post natal mothers. The finding of the study is in keeping with the studies of Abubakar (2015) and Zegeye et al (2018) whose studies reported a statistically significant difference between the practices of PMTCT guideline among post natal mothers and age, marital status, parity and access to health facility. The finding of Adugua (2015) and Shewasinaet al, (2018) also attests to the finding of this study as it revealed that there was a statistically significant difference between the practices of PMTCT guideline among post natal mothers and age, parity and access to health facility. The finding of the study is also corroborates with the studies of Nwakaego (2014), Abeb et al (2019) and Akal and Afework (2018) whose study discovered that age, parity and distant to health facility influences the practices of PMTCT guideline among post natal mothers. The reasons for this might be attributed to the fact that age helps in better experiences for better practices among mothers. For marital status, there may be support from the spouses of these women raging from financial, emotional to helps them have better understanding of their new roles as mothers. In the case of parity, it helps mothers with better practices due to experiences of their previous children while access to healthcare facility promotes the practices of what a mother is expected to do since she is always going for medical advice, there may be monitoring of these mothers by their healthcare providers each time they visit the healthcare facility for better improvement. However, cultural values, level of education and other factors may play significant roles.

Conclusion

In regard to the findings of the study, it was concluded that postnatal mothers had good practices of PMTCT of HIV guideline and that age, marital status, parity and access to health facility influences the practices of PMTCT of HIV guidelines among postnatal mothers in Ikwerre Local Government Area of Rivers State.

Recommendations

In regard to the findings of the study, the recommendations were made:

1. The healthcare facilities and those taking care of mothers should ensure they start introducing PMTCT HIV guideline early enough during premarital counseling, and antenatal processes to equip women on their knowledge and practice of PMTCT HIV guideline.
2. Government should ensure that health care service be free of charge to enable the people especially nursing mothers to effective use of it. This in turn increase of practices preventive guidelines of HIV and reduce the case of morbidity and maternal mortality among women who are mothers.
3. The government, ministries of health, donors and stakeholders should put in more effort in sponsoring programmes that will ensure the implementation of PMTCT of HIV guideline among postnatal mothers in terms of finances, donations and budgeting.

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