

Assessment of the Acceptability of Immunization Services against Infant Killer Diseases among Women of Childbearing Age in Kano State

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Abstract

The purpose of this study was to assess acceptability of Immunization Services against infant killer diseases among women of childbearing age in Kano State Nigeria. To achieve this purpose, multi-stage sampling technique involving simple, stratified, purposive, proportionate and systematic random sampling techniques was used to select 420 women of childbearing age from twelve (12) primary healthcare centres in Kano state. A researcher-developed questionnaire was used in collecting data from the selected hospitals in the three (3) senatorial zones of Kano state. Descriptive statistics of frequencies and percentage, mean and standard deviation and inferential statistics of one-sample t-test was used to analyse the gathered data at alpha level of 0.05. The findings of the study revealed that there was no significant acceptability of immunization services against infant killer diseases among women of childbearing age in Kano state. In conclusion, the findings of the study revealed that women of childbearing age in Kano state do not accept immunization services against infant killer diseases. It was therefore recommended that the government and non-governmental organizations should mount periodic public awareness campaign on immunization in order to increase the level of acceptance of immunization services by women of childbearing age.

Keywords: Immunization, Infant, Killer, Diseases, Women, Childbearing

Introduction

The endemic rate of childhood killer diseases is a reflection of the growing concern for the worsening human development index of Nigeria. The Millennium Development Goal number 4 of reducing child mortality and improving survival by 2015 was frustrated by poor immunization services (Green, 2004). Therefore, there is an urgent need to address, specifically and concretely, the problems facing immunization activities in Nigeria (Bolu, et al., 2018). To this end, according to UNICEF (2013), only four countries in the world are reported to have endemic poliomyelitis; these include Pakistan, Afghanistan, Nigeria and India. Global polio eradication has dramatically reduced polio transmission throughout the world with eradication from western hemisphere in September 1994; but this has suffered great

setback in Nigeria, especially in the northern part of the country. According to Ophori, Tula, Azih, Okojie, and Ikpo (2014), immunization rates in northern Nigeria is among the lowest across the world. Barely 10% of children received all of their routine vaccines in many part of northern Nigeria (Abdulkarim, Ibrahim, Fawi, Adebayo & Johnson, 2011).

In 2012 and 2013, Kano recorded 40% and 67% immunization coverage (National Immunization Coverage Survey, 2016/2017). Though there was significant improvement, the level is still below target of achieving 90% immunization coverage. According to WHO (2015), there are factors responsible for unattainable target of 90% immunization coverage which include lack of confidence and trust by the public in the health care system. Anaeke, Anaeke, Nnebue, Obi, and Ilika (2012), in a comparative study conducted in Awka which assessed maternal knowledge, attitude and uptake of routine immunization in 'Sabo' and 'Non-sabo' communities in Awka, revealed that 17% of mothers believed infant killer diseases were caused by evil spirit. With regards to acceptance of immunization, Bello, et al. (2016), in their study that assessed challenges of immunization coverage among a semi-nomadic population in Kano state, reported that there is a strong association between socio-demographic variables and acceptance of immunization.

Tagbo, Uleanya and Omotowo (2013) reported that with regards to acceptability of immunization, mothers of under-five children perceive that they would not continue immunization if the child suffered adverse effects (80% as reported in the study). The study conducted by Baba and Ayivor (2012) reported a much lower number as only 37% reject immunization because they fear it not to be safe; 30% (Ekure, et al., 2013; Adedokun, Uthman, Adekanmbi, & Wiysonge, 2017) would not take their children to go for immunization because of the side effects, 50% (Ekure, et. al 2013) would not immunize their children if the child was taking antibiotics. Similarly, 17.23% (Itimi, Dienne & Ordinioha, 2012) will not immunize their children due to adverse rumour, 17.4% due to ill health (Onyiriuka, 2005), 37.2% due to long distance (Oyefara, 2014), and 42% had no reasons (Baba & Ayivor, 2012); and 60% of mothers of under-five would not immunize their children due to religious and cultural beliefs (Baba & Ayivor, 2012).

The researcher, being a nurse by profession, has witnessed many vaccine preventable cases brought to the hospital for treatment. These cases which is mostly among under-five children in the state are fatal; as most cases are presented with severe symptoms (fever, loss of weight, vomiting) which result to increased infant mortality. Although there are several factors that can be attributed to the causes of vaccine preventable diseases among under-five children in the state among which include ignorance, socio-cultural and economic factors, which affect parent's healthcare seeking behaviour in

the state. Therefore, these were among the reasons that ignited interest of the researcher to undertake a study on the assessment of acceptability of immunization services against infant killer diseases among women of childbearing age in Kano state.

Purpose of the Study

The purpose of this study was to investigate the acceptability of immunization services against infant killer diseases among women of childbearing age in Kano State.

Research Question

1. What is the extent of acceptability of immunization services against infant killer diseases among women of childbearing age in Kano State, Nigeria?

Hypothesis

Ho1: Acceptability of immunization against infant killer diseases among women of childbearing age in Kano state is not significantly positive.

Methodology

The research design for this study was descriptive survey. The population of this study comprised of 1,367,916 women of childbearing age attending clinics and primary healthcare centres in Kano State (Primary Health Care Management Board Kano, 2016). A sample of 420 respondents from 12 health care centres was selected based on Krejcie and Morgan (1970), who suggested that for a population of 1,000,000 a sample of 384 will be sufficient to be used as sample. Multi-stage sampling technique was used in this study, comprising of stratified random sampling, simple random sampling, proportionate random sampling and purposive sampling technique. At the first stage, Kano state was stratified into the three already existing senatorial zones adopted as strata (these are Kano south zone, Kano central zone and Kano north zone). Two local government areas (LGAs) were selected from each stratum using simple random sampling technique. In this technique, the researcher wrote all the names of the local government areas per senatorial zone on pieces of paper. Each of the pieces of paper was folded and dropped in a container. The researcher asked one of his research assistants to pick from the container one piece of paper at a time and the researcher wrote down the name of the LGA on the paper; then the picked paper was folded and dropped in the container. This procedure was repeated until the required numbers of LGAs were picked and recorded. Simple random sampling technique was used to select two political wards each from the selected LGAs. The balloting method explained earlier was carried out until 12 wards were selected. To select the participants across the selected wards, proportionate random sampling technique was employed. The researcher divided the population of women of childbearing age at each ward by the target population and multiplied it by the sample size. Lastly, purposive sampling technique was used to select women of childbearing age in the state.

The research instrument used for data collection was a researcher-developed questionnaire titled “Questionnaire on assessment of knowledge, acceptability and utilization of immunization services against infant killer diseases”. The questionnaire was vetted for its face and content validity by three (3) experts in the Department of Human Kinetics and Health Education in Ahmadu Bello University, Zaria. The research instrument is made up of four (4) sections A-D. Section A has 6 items on demographic characteristics of the respondents; section B-D has eight (8) items each. To score the respondents based on what they feel towards an item, a four point modified Likert scale rating was used. Strongly agree 4 points, agree 3 points, disagree 2 point and strongly disagree 1 point. Decision on the mean scores is based on the 2.50 midpoint average. Mean of 2.50 and higher magnitude indicates adequate utilization while lower mean implies inadequate utilization. Descriptive statistics of frequencies and percentage were used to describe the demographic characteristics of the respondents while t-test statistics was used for testing the hypotheses.

Presentation of results

Research Questions One: What is the extent of acceptability of immunization against infant killer disease among women of childbearing age in Kano State?

Table 1: Mean scores of Acceptability of Immunization against Infant Killer Disease by Women of Childbearing Age in Kano State, Nigeria

S/N	Description of items	Mean	Std. Dev.
1	I accept immunization services for my child.	2.43	0.792
2	I do not accept immunization because of some side effects caused to the child.	2.62	1.000
3	Immunization helps to protect the child against any diseases.	2.61	0.927
4	I always see immunization as a waste of time.	2.52	1.049
5	I do go for traditional medicine for any treatment than health care centres.	2.40	.839
6	I agree that immunization helps to reduce sudden infant death.	2.44	1.146
7	Service providers are the cause of my non-compliance in immunization days.	2.39	0.918
8	I accept immunization because it gives a child all he needs to be healthy.	2.20	1.021
Aggregate mean		2.45	0.601

In Table 1, the opinions on the items used for the assessment are scored in mean scores and standard deviation. The aggregate mean score of 2.45 in the table reveals that the

respondents do not accept immunization. As indicated in the table, their non-acceptance is attributable to what is considered as side effect of such vaccines. Though they have good knowledge of immunization and were aware of the fact that it helps to protect the child against any diseases, they did not accept the immunization. The non-acceptance is not associated with experience from the service providers or because the women prefer traditional medicine for any treatment than going to health care centres for such immunization. From the observation of the expressed opinion in the table, it could be concluded that the women of childbearing age in Kano state do not accept immunization against infant killer diseases not because they lack the knowledge but because they fear the side effects of vaccines used in the immunization services.

The acceptability of immunization by the women was assessed in terms of perceived impact of the services on the health of the child, the associated experiences with the health care providers responsible for the immunization and perceptions of alternative prospect in terms of what could be obtained for the protection of the child through other means different from routine immunization. The women’s acceptability of the immunization services provided in the state was assessed by examining the level of patronage, adherence to routine scheduled immunization services and level of vaccines against measles, poliomyelitis, Diphtheria, Hepatitis B and Pertussis that have been completed for the children.

Ho1: There is no significant acceptability of immunization against infant killer diseases among women of childbearing age in Kano state.

Table 2: One Sample t-test on Acceptability of Immunization against Infant Killer Diseases among Women of Childbearing Age in Kano State

Variables	N	Mean	Std. Deviation	t-value	df	p
Acceptability	410	2.45	.127	1.157	409	.281
Test mean	410	2.50	.000			

(Critical value of $t=1.96$, $P > 0.05$)

The hypothesis on the acceptability of immunization against infant killer diseases by the women was tested and the results presented in Table 2. The mean scores of the women in the table were compared with a fixed mean of 2.50 used as the benchmark to establish the significance of the extent of acceptability of the immunization services in the analysis. The One sample t-test procedure was used in the test. The result of the test revealed that the respondents’ level of acceptability of immunization against infant killer diseases in the state is not significant. This was indicated with a mean score of 2.45 compared with the fixed mean of 2.50. The mean score is lower than the midpoint average. The observed t-value for comparing the two mean is 1.157 and the P-value

observed for the test is 0.281 ($P > 0.05$) at the 409 degree of freedom. These are clear evidence that the level of acceptability of immunization services by women of childbearing age in the state is not significant. The null hypothesis that there is no significant acceptability of immunization services against infant killer diseases among women of childbearing age in Kano state is therefore retained.

Discussion of findings

The study sought to establish the acceptability of immunization services against infant killer diseases among women of childbearing age in the state. The finding revealed that the women do not completely accept immunization services. Also, their level of acceptance was not found to be statistically significant. The finding here reflects the findings of Anaeke, Anaeke, Nnebue, Obi, and Ilika (2012) whose study conducted in Awka which assessed maternal knowledge, attitude and uptake of routine immunization in 'Sabo' and 'Non-sabo' communities in Awka revealed that 17% of mothers believed infant killer diseases were caused by evil spirit; while 35.7% associated such disease to evil spirit and eating bad things. The finding of this study agrees with the report of Adedokun, Uthman, Adekanmbi and Wiysonge (2017) where it was reported that some people reject immunization because they feel the vaccine is not safe. In a similar report, Ekure, et al, (2013) found that some respondents would not take their children for immunization because they fear the side effects of the vaccines. The finding of this study is in sync with the study conducted by Bello, et al, (2016) who reported that socio-demographic variables of mothers and care givers (level of education, per capital income) is associated with acceptance of immunization.

Conclusion

Based on the findings of this study, it was concluded that women of childbearing age in Kano state, Nigeria do not accept immunization services against infant killer diseases. This is because women believe that immunization do not help to reduce sudden infant death, nor does it give a child all he needs to be healthy.

Recommendations

Based on the conclusions drawn, it was recommended that the government and non-governmental organizations should mount periodic public awareness campaign on immunization in order to encourage women of childbearing age to increase their level of acceptance of immunization services.

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