Nigerian Journal of Health Promotion
ISSN: 0995-3895
Vol 16, 2023

Constraints to Participation in Immunization Programmes among Childbearing Women Attending Health Services in Yorro Local Government Area Health Facilities, Taraba State, Nigeria

Amaka Harry Ononuju[1], Lawretta IjeomaAbugu[1], Agatha Nneka Obayi[1], Samuel Ifeanyi Chris Dibia[1], Kato George Usman[2]

[1]Department of Human Kinetics & Health Education, University of Nigeria, Nsukka

[2]Department of Educational Psychology, Faculty of Education, Bingham University, Karu Nasarawa State.

***Correspondence: E-mail: amaka.ononuju@unn.edu.ng; +234 8068373779**

Abstract

The study determined constraints to participation in infant immunization programmes among childbearing women attending health facilities in Yorro Local Government Area, Taraba State, Nigeria. Specifically, the study objectives were to determine constrains relating to: finance; culture/religion, politics and personnel thus four corresponding research questions guided the study. The descriptive survey research design was adopted for the study. Population for the study consisted of 3,620 childbearing women. A sample size of 362 childbearing women was selected and used for the study. A validated and reliable questionnaire was used to collect data. Data were analyzed using frequencies and percentages. Results showed that majority (81%) of the respondents indicated that cost of transportation to immunization clinics is a major financial constraint to participation in immunization programmes. Also, 85.7 per cent agreed that preference to traditional medicine is a major cultural constraint while 72 per cent were of the opinion that immunization is a way to reduce children's fertility. The study concluded that cost of transportation to immunization clinics, preference to traditional medicine and unproven beliefs are the major financial, cultural and religious constraints to participation in immunization programme respectively. The study recommended that more health facilities should be built and strategically situated in each community to increase proximity and accessibility and that childbearing woman should be given health talks periodically during antenatal and immunization to help correct unscientific beliefs regarding immunization

Keywords: Constraints, Immunization Programmes, Childbearing women, Participation, Health facilities

Introduction

Globally, infant immunization, also known as vaccination, is one of the safest and most reliably effective methods of ensuring healthy children through reduction of preventable infant morbidity and mortality. Report of a joint World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) (2014) study revealed that an estimated 29 per cent deaths among children aged 1–59 months were due to vaccine preventable diseases. WHO (2020) reports indicated that immunization has been estimated to prevent 3 million deaths globally every year. Yeung, Duclos, Nelson and Hutubessy (2017) reported that in 2014, there were 24.1 million reported cases of pertussis, with the African region accounting for the highest proportion of 7.8 million (33%) cases. Specifically, Nigeria

Demographic and Health Survey (2018) reported that Diphtheria Pertussis and Tetanus (DPT3) coverage is low in Nigeria (50%).According to the Expanded Programme on Immunization (EPI), every child in Africa should receive one dose of Bacillus Calmette Guerin (BCG), Oral Polio Vaccine (OPV0) and Hepatitis B Vaccine (HBV1) at birth, Penta1, OPV1, Rota 1 and PCV I at 6 weeks of age, Penta2, OPV2, Rota 2 and PCV 2 at 10 weeks of age, Penta3, OPV3, PCV 3 and IPV at 14 weeks of age, first dose of vitamin A at 6 months of age, Conjugate A CSM, first dose of measles and yellow fever at 9 months of age and second dose of measles and vitamin A at 12 months of age.

The benefits of immunization cannot be overemphasized as its role in disease prevention and reduction in mortality is well documented in literature (Galadima, Zulkefi, Said & Ahmad, 2021; Dimitrova, Carrasco-Escobar, Richardson & Benmarhnia, 2023). Every year, millions of children around the globe are being saved from diseases and deaths through immunization. Vaccines have wiped out smallpox, abolished wild polio virus in the developed nations, and significantly abridged the number of cases of measles, diphtheria, pertussis and other communicable diseases in the under-developed nations such as Nigeria (Galadima, Zulkefi, Said & Ahmad, 2021). The Centre for Disease Control-CDC (2009) stated that vaccines secure and provide effective defense system against transferable diseases by boosting the body's immunity. Immunity when boosted has the power to help individuals resist or overcome infections. Immunity is achieved through the process of immunization. Regrettably, Nigeria Demographic and Health Survey Key indicators report (2018) shows that EPI recommended immunization doses have remained poor in Nigeria (31% coverage in 2018). Thus, Nigeria has the highest population of unimmunized children in the world (Alkenbracka, Kurowskib, Hafezc , Aladed, Odutolue , Ajiboyef, Okunolag, & Loevinsohn, 2018). Poor immunization coverage stems from certain factors that tend to hinder participation in immunization programmes. Those factors that impede participation in immunization programmes are termed constraints.

Constraints are factors that make it difficult or prevent someone to participate in a project or programme. Constraints are impediments, hindrances and obstacles. A lot of factors constrain childbearing women from participating in immunization programmes. Such constraints can be those relating to family or emanating from the environment. Several studies have extensively enumerated factors that influence infant immunization in Nigeria to include maternal age, maternal educational status, paternal educational status, mother's marital status, maternal occupation, family income, wealth index and ethnicity and obstetric factors including antenatal care follow-up, postnatal care follow-up, preceding birth interval and place of delivery, residence, fear of side effects (Odi, Uchenna, & Kenechi, 2014; Adedokun, Uthman, Adekanmbi, & Wiysonge, 2017). Some researchers pointed out maternal knowledge on child immunization to be a predictor for childhood immunization (Galadima, Zulkefi, Said & Ahmad, 2021). The above factors are mostly constraints relating to women and their family. The present study focuses on constraints such as political constraints, personnel constraints, cultural/religious constraints and financial constraints because in Nigeria, cultural beliefs against immunization are found to be destructive towards childhood immunization uptake (Duru, et. al. 2016). Lack of adequate involvement by religious and traditional leaders in immunization activities was found to be a reason for immunization failure in Borno State, Nigeria (Omotara, & Okujagu, 2012). It appears that siting of health facilities in some part of Nigeria are political, resulting in clustering of health facilities in some places while other places have few health facilities. Gbefemi (2010) opined that besides finance and belief system challenges to participation in immunization, politics poses a serious hindrance to provision and utilization of immunization programmes. The author further opined that most health facilities are politically situated, therefore causing high concentration

of health facilities in some places while some other places lack those health facilities. Consequently, participation in immunization becomes a challenge to people who are not in those places with concentrated health facilities. Also, circulation of false information via the use of either family or religious networks towards vaccines has resulted in low participation in immunization programmes. For example, beliefs that vaccines were composed of anti-fertility drugs and therefore could destroy the eggs of females and cause damage to the reproductive system (Jegede, 2007). The National Bureau of Statistics (NBS) in cooperation with the State Bureau of Statistics in Kano and Lagos (2017) study revealed the inequalities in immunisation with children of younger and less educated caretakers less likely to be vaccinated. Children whose mothers or primary caretakers had secondary or tertiary education were more than five times likely to be vaccinated as children whose mothers had no education or had non-formal education. Children from the households in the richest wealth quintile were also six times more likely to have received vaccinations compared to children from households in the poorest wealth quintile. The survey also found out that children in rural areas are half as likely to be vaccinated as those in the urban areas. These show that certain factors constrain participation in immunization programmes.

Immunization programme should be made accessible in all communities and active participation in immunization programme for children should be encouraged among childbearing women. Childbearing women are women who are either pregnant, have birthed a baby or nursed a baby. Women of childbearing age are girls and women within the reproductive age of 18 to 49 years and may not have been pregnant, birthed a baby or nursed a baby. Contextually, childbearing women are pregnant or nursing mothers attending antenatal or immunization programme at Yorro LGA health facilities, Taraba State, at the time of this study. Childbearing women are expected to actively participate in immunization programme for the benefit of their children. The World Health Organization has mounted various campaigns to increase participation in immunization programmes. Government at different levels in Nigeria has spent money in improving immunization programmes and subsidizing vaccines in Nigeria, Taraba State inclusive. In fact, basic infant vaccinations in Nigeria is almost free except for few vaccines. Regrettably, these efforts have not yielded the desired results as a major survey finding from 2016 Multiple Indicators Cluster Survey/National Immunization Survey Coverage (MICS/NICS) reveals that 77% of children aged 12 – 23 months in Nigeria have not received all the routine vaccinations as recommended by the national EPI schedule while 40% of children in this age group did not receive any vaccinations putting it to be far below the ninety percent national target that has been set by the country. Also, 33% of children aged 12 to 23 months received three doses of Penta vaccines, while 31% of children who received Penta 1 vaccines did not complete the three-dose series. These are indications that despite the laudable efforts and progress in immunization programmes made by government, and despite recent success towards controlling poliovirus transmission, Nigeria has struggled to achieve uniformly high routine vaccination coverage. Data from the 2013 National Demographic and Health Survey (DHS) show that while the national estimate for DPT3 coverage was 38%, state-level coverage ranged from 3%–76% across 20 states in the northern part of the country (Nigeria Demographic and Health Survey, 2013). This is a clear indication that participation in immunization programmes is constrained largely in northern Nigeria, Taraba State inclusive.

The researchers observed that Taraba State particularly Yorro LGA has been witnessing low participation of mothers in immunization programme. Women in Taraba State were found to have poor knowledge, poor attitude and poor practice regarding attendance to antenatal care (Victor, Daniel, Abiodun,, Ayeni & Olagbegi, 2019). This could be as a result of some constraints which may also be preventing them from participating in immunization

programme. Hence, the need to investigate constraints to women's participation in immunization programme in Taraba State, Nigeria. Specifically, the study determined four constraints to participation in immunization programmes relating to women and their families such as: finance; culture/religion; politics; and personnel.

Research Questions

Four research questions guided the study. What are the constraints to women's participation in immunization programme relating to women and their families, such as:

1. finance?
2. Culture/religion?
3. Politics?
4. Personnel?

Materials and Methods

Subjects and Study Design: The descriptive survey research design was used for the study. Chime, Obi and Uzoamaka (2008) successfully adopted this design in finding the factors associated with low community participation in immunization programme in Nsukka urban area of Enugu State. The researchers therefore considered this design appropriate for the study because it describes participation in immunization programme the way it is.

Study population and sample size determination: The population for the study comprised all childbearing mothers attending health services in the seventeen (17) health facilities distributed in the eight (8) zones in Yorro LGA, Taraba State. Record available at the Yorro LGA Health District shows that at the time of this study, the population of registered childbearing women attending health services in the seventeen (17) health facilities in Yorro LGA was 3620. (Yorro LGA Health District, Taraba State, 2020). The sample size for the study consisted of 360 childbearing women attending health services in Yorro LGA health facilities. This represents ten per cent of the population. The multi-stage sampling procedure was used to select the sample size for the study. In the first stage, four zones were selected from the eight zones in Yorro LGA using simple random sampling technique without replacement. In the second stage, two health facilities were selected from each of the selected zones using proportionate sampling procedure. This gave a total of eight health facilities selected for the study. In the third stage, forty-five childbearing mothers were randomly selected from each of the eight health facilities located in Yorro LGA. Thus, giving a total of 360 mothers selected for the study.

Area of the Study*:* The study area was Yorro Local Governemnt Area of Taraba State. Yorro is one of the rural Local Government Areas in Taraba State.There are 17 health facilities unequally distributed in the eight (8) zones in Yorro Local Government Area of Taraba State with few health workers. Inhabitants of Yorro LGA are mainly petty farmers and traders who are mainly indigenes. The area is non-commercial hence, there are little economic activities in the area. The area appears to lack social amenities and it is scarcely populated. Its inhabitants are mainly farmers and petty traders with few civil servants mainly working in educational centre. Immunization participation record in Nigeria according to States, shows that Enugu state has the highest DPT3 coverage of 98.21%, while Taraba State showed the lowest DPT3 coverage with 15.63% (Ophori, Tula, Azih, Okojie & Ikpo, 2014).

Data collection tools and procedure: Instrument for data collection was questionnaire. The questionnaire consisted of three sections: A, B and C. Section A consisted of 3 questions

demanding the demographic data of the respondents. Section B comprised of 4 items on financial constraint, and 6 items on cultural constraints, Section C consisted of 4 questions on political, and personnel factors each. The respondents were required in each section to indicate 'yes or 'no' as it applied to them. Face validity of the instrument was carried out by three experts in the Department of Human Kinetics and Health Education, University of Nigeria, Nsukka. The reliability of the instrument was determined by administering twenty (20) copies of the questionnaire to childbearing women from Kwambai autonomous community in Takum Local Government Area, whose settlement areas were not selected for the study. The result of the test was separated into odd and even numbers using split-half method. Spearman-Brown's correction formula was used to estimate the reliability of the instrument. After computation, a reliability co-efficient index of .87 was obtained and the instrument was adjudged reliable. This is in line with Cohen, Manion and Morrison (2011) view that in a reliability test, if the correlation co-efficient obtained is up to .70 and above, the instrument should be considered good enough to be used for the study.

The questionnaire was administered to the respondents by hand for a period of 4 weeks during antenatal and immunization visits. The researchers co-opted two research assistants who helped in the distribution and collection of the instruments. A total of 360 copies of the questionnaire were administered on the respondents. Filled out questionnaires were collected on the spot. This ensured a good coverage of all the respondents and maximum return of 100 per cent.

Data analysis: The returned copies of the questionnaire were cross- checked for completeness. Ten (10) copies of the instrument distributed were not completely filled and were discarded. This left the copies of the instrument to three hundred and fifty (350) completed copies that were used for the analysis. Percentages were used to analyze data. All the research questions were answered using the criteria: Very High Proportion (VH) = 80% and above; High Proportion (H) =60-79%; Moderate Proportion (M) = 40-59%; Low Proportion (L) = 20-39% and Very Low Proportion (VL) = below 20%

Results

Table 1:**Responses on Financial Constraints to Immunization Programme (n=350)**

S/N	Financial Constraints	Responses		Remarks
		Yes	No	
		f(%)	f(%)	
1.	Cost of transport to immunization clinics	285(81)	65(19)	VHP
2.	Insufficient fund by governments	100(28.6)	250(71.4)	LP
3.	Lack of money to pay for some immunization services	234(67)	116(33)	HP
4.	Increased cost of living among families	83(24)	267(76)	LP
	Overall Percentages	**176(50.2)**	**174(49.8)**	**MP**

***Key: VHP = Very high proportion. LP= Low proportion, HP= High proportion, MP= Moderate proportion**

Table 1 shows that on the average, finance constrains women from participating in immunization programme. Specifically, data in table 1 shows that very high (81%) proportion of childbearing mothers reported that cost of transport to immunization clinics is a major financial constraint to participation in immunization programmes in Yorro LGA health facilities. The Table further shows that high (67%) proportion of the respondents reported that lack of money to pay for some immunization services, while low proportion of childbearing mothers reported that insufficient fund by government (28.6%) and increased cost of living among families (24%) were financial constraints to participation in immunization programmes. The overall percentage (50.2%) shows that moderate proportion of childbearing mothers reported that finance is a constraint to immunization programmes.

Table 2: Responses on Cultural Constraints to Immunization Programmes (n=350)

S/N	Cultural constraints	Responses		Remarks
		Yes f(%)	No f(%)	
1.	Immunization is forbidden by my religion	240(68.5)	110(31.5)	HP
2.	My culture is against immunization	90(25.7)	260(74.2)	LP
3.	Language barrier between health workers and CBW	234(67)	116(33)	HP
4.	Immunization can lead to deformity	243(69.4)	107(30.6)	HP
5.	Immunization is a way to reduce children's fertility	252(72)	98(28)	HP
6.	Preference to traditional medicine	300(85.7)	50(14.3)	
	VHP			
	Overall Percentages	**227(64.7%)**	**123(35.3)**	**HP**

***Key: VHP = Very high proportion. LP= Low proportion, HP= High proportion, MP= Moderate proportion**

Table 2 reveals that very high (85.7%) proportion of the respondents agreed that preference to traditional medicine is the major cultural constraint to participation in immunization programmes. Also, high proportion (72%) of the respondents indicated that immunization is a way to reduce children's fertility and that immunization can lead to deformity (69.4%). The Table further showed that high proportion (68.5%) and (67%) of the respondents reported that immunization is forbidden by my religion and language barrier between health workers and childbearing women are cultural and religious constraints to participation in immunization programme while low proportion (25.7%) of the respondents indicated that my culture is against immunization. The overall percentage (64.7%) shows that high proportion of childbearing mothers reported that culture is a constraint to immunization programmes.

Table 3: Responses on Political Constraints to Participation in Immunization Programme (n=350).

S/N	Political constraints	Responses		Remarks
		Yes f(%)	No f(%)	
1.	Irregularity in government	346(98.9)	4(1.1)	
	VHP			
2.	Poor attitude of government towards maternal and childhealth	240(69)	110(31)	
	HP			
3.	Misappropriation of fund/poor allocation to health	231(66)	231(34)	
	HP			
4.	Citing of health facilities in one zone	325(93)	25(7)	
	VHP			
Overall Percentage		**286(81.7)**	**64(18.3)**	
	VHP			

Table 3 showed that very high proportion (98.9%) and (93%) of the childbearing mothers reported that irregularity in government and siting of health facilities in one zone are political constraint to participation in immunization programme. Table 4 also showed that high

proportion (69%) and 231 (66%) of the respondents indicated poor attitude of government towards maternal and child health and misappropriation of fund as political constraints to participation in immunization programme among child bearing women in Taraba State. The overall percentage (81.7%) shows that very high proportion of childbearing mothers reported that politics is a constraint to immunization programmes.

Table 4: Responses on Personnel Constraints to Participation in Immunization Programme (n=350)

S/N	Personnel Constraints	Responses		Remarks
		Yes f(%)	No f(%)	
1.	Insufficient health personnel	167(47.7)	182(52.3)	MP
2.	Poor attitude of health workers	264(75.4)	86(14)	HP
3.	Lack of qualified personnel	170(48.6)	180(51.4)	MP
4.	Unavailability of health workers	210(60)	140(40)	HP
	Overall percentage	**203(58)**	**147(42)**	**MP**

Table 4 shows that high (75.4%) proportion of childbearing mothers reported that poor attitude of health workers is a personnel constraint to participation in immunization programmes. The Table further shows that high (60%) proportion of the respondents indicated that unavailability of health workers is a personnel constraint to participation in immunization programme. Table 4 also showed that moderate (48.6%) and 167 (47.7) of the respondents indicated lack of qualified personnel and insufficient health personnel as constraints to participation in immunization programmes. Overall, moderate (58%) of childbearing mothers reported personnel constraints to participation in immunization programmes.

Discussion

Findings in Tables 1 and 2 show constraints relating to women and their families such as finance, and culture/religion which constrain women from participating in immunization programmes. These finding are expected and therefore not surprising because the financial status of a family determines the services they can get and the quality of care their children receives, including immunization. Some families are so poor especially families in rural areas such that they cannot afford transport money to health facilities or pay for syringes used in administering the vaccine on their baby. This is in line with the assertion of Katayama and Wadhwa (2019) that Nigeria has the highest number of extremely poor people worldwide after India. Additionally, Micheal, Aliyu and Grema (2019) stated that poor household in Nigeria are either unable to access quality healthcare or face financial hardship from healthcare spending. Certain cultural and religious beliefs which different families uphold are negative towards immunization. Duru, et. al (2016) noted that cultural beliefs against immunization are found to be destructive towards childhood immunization uptake. Also, lack of adequate involvement by religious and traditional leaders in immunization activities was found to be a reason for immunization failure in Borno State, Nigeria (Omotara, & Okujagu,

2012). Specifically, Table 1 revealed that very high proportion (81%) of women reported that cost of transport to immunization clinics is a financial constraint to participation in immunization programm in Yorro LGA health facilities. This result is consistent with Sheldon (2005) who found out that most people who need immunization services in developing countries lack the cost of traveling to clinics. Table 1 also showed that moderate (45%) proportion of the respondents indicated lack of money to pay for some immunization materials (such as syringe) as financial constraints to participation in immunization programmes. This agrees with the observation of Nmezie (2008) that 40% of the money allotted by government during immunization programmes is not enough for the exercise to be effective for communities. So health care workers tend to collect some money from women during immunization in order to make up for the gap in government allocation.

Findings in Table 2 specifically show that very high (85.7%) proportion of the respondents indicated that preference to traditional medicine is the major cultural constraint to participation in immunization programmes. This finding agrees with Okereke (2009) opinion that in many parts of Nigeria, preference to traditional medicine hinders effective participation in immunization programmes. According to this researcher, culture and certain religious doctrine inculcate this belief in people and thus limiting their participation in immunization exercises. Also, high proportion of the respondents 252 (72%) indicated that immunization is a way to reduce children's fertility and that immunization can lead to deformity (69.4%). This finding supports Ekem (2008)'s observation that mothers refrain from certain immunization programmes due to the unproven statements that immunization is a way of reducing over population in developing countries. For example, beliefs that vaccines were composed of anti-fertility drugs and therefore could destroy the eggs of females and cause damage to the reproductive system (Jegede, 2007). Also, the fear of deformity deters some women from participation in immunization of their children which according to Ihem (2000) can lead to paralysis of the lower limbs if not administered properly. The Table further showed that high proportion of the respondents indicated that immunization is forbidden by my religion (68.5%) and language barrier between health workers and childbearing women (67%) as cultural and religious constraints to participation in immunization programme while low proportion (25.7%) of the respondents indicated that my culture is against immunization. These findings are expected and therefore not surprising because Ekwunife (2009) opined that a successful immunization programme must take into consideration the tradition of the community and its life patterns because mothers in the community tend to prefer the traditional way of speaking and hold tenaciously to what their religion teaches about medications. This implies that health educators and health care workers should as a matter of urgency, use any available means to educate mothers on benefits of immunization to their children.

Findings in Table 3 show constraints relating to politics. Gbefemi (2010) opined that besides finance and belief system challenges to participation in immunization, politics poses a serious hindrance to provision and utilization of immunization programmes. The author further opined that most health facilities are politically situated, therefore causing high concentration of health facilities in some places while some other places lack those health facilities. Consequently, participation in immunization becomes a challenge to people who are not in those places with concentrated health facilities. Specifically, table 3 shows that very high proportions (98.9%) and (93%) of respondents indicated that siting of health facilities in one zone is one of the political constraints to participation in immunization programme. These findings are expected and therefore not surprising because irregularity in government brings about change in government policies that can affect programmes. This is in line with World Health Organization (2009) assertion that constant change in government

policies adversely affects the effectiveness of any programme in the world today, including immunization. Table 3 further showed that high proportions (69%) and (66%) of the respondents indicated poor attitude of government towards maternal and child health and misappropriation of fund as political constraints to participation in immunization programme among child bearing women in Taraba State. These findings agree with Ali (2006) that health sector in Nigeria suffer a lot as less money is allocated to it and this has negative effect on health programmes, especially those programmes associated with children and childbearing mothers.

Findings in Table 4 show constraints relating to personnel. High proportion (75.4%) of childbearing mothers reported that poor attitude of health workers is a personnel constraint to participation in immunization programme. This finding is not expected and therefore surprising as health workers are supposed to have positive attitude towards their clients as people entrusted with the responsibility to save life. However, this finding agrees with the findings of Ekerete (2004) that harsh handling of mothers by health workers is a major reason why they do not return to complete their treatment and this applies to their children. Table 4 also show that high proportion (60%) of the respondents indicated unavailability of health workers as constraint to participation in immunization programme. Table 4 further showed that moderate proportions (48.6) and (47.7) of the respondents indicated lack of qualified personnel and insufficient health personnel as constraints to participation in immunization programme. Sheerline (2008) had earlier reported that inadequate personnel have adverse effect on participation in immunization programme as well as use of untrained personnel which deter mothers from immunization programme.

Implications of the study's findings

Findings of the study show constraints relating to women and their families such as finance, and culture/religion from participating in immunization programmes. Very high proportion of the respondents indicated that preference to traditional medicine is the major cultural constraint to participation in immunization programmes and that siting of health facilities in one zone are the political constraints to participation in immunization programme. High proportion childbearing mothers reported that poor attitude of health workers is a personnel constraint to participation in immunization programme. The implication for these findings is that as more women are constrained from participation in immunization programmes, vaccine preventable disease will increase with consequent rise in infant mortality rate. This can be an indicator of unmet health needs, and poor quality of education in a country. Again, the findings of the study can be a reflection of the economic and political situation in the study area, giving clues to the standard of living of people in that area. The finding can also impact negatively on the productive workforce of the study area because as the workforce age, it will be difficult to replace them since vaccine preventable deaths have taken a toll on the children meant to replace the ageing population overtime.

Conclusion

Based on the findings of the study, the following conclusions were inferred. Transportation cost to immunization clinics is a major financial constraint to participation in immunization programmes among childbearing women attending health services in Yorro LGA health facilities. Preference to traditional medicine and unproven belief are the major cultural and religious constraints to participation in immunization programmes. Instability in governance and clustering health facilities in one area poses constraints to participation in immunization programmes among childbearing mothers. Lack of adequate and stable staff in

the health facilities in Yorro LGA of Taraba State poses constraints to participation in immunization programmes among childbearing women.

Recommendations

From the findings of the study, discussion and conclusions, the study made the following recommendations to increase participation in immunization programmes among childbearing women.

1. Women should be encouraged to practice family planning so that families can have the number of children their money can adequately cater for.
2. Health facilities should be situated in all zones to increase proximity
3. Health educators should give childbearing women continuous health talks on benefits of immunization to help correct unproven and unscientific beliefs they have regarding immunization during antenatal visits
4. Stability in government policies should be ensured by succeeding government and health facilities spread over areas to allow access to health facilities from people all over the community.

References

Adedokun, S., Uthman, O., Adekanmbi, V., & Wiysonge, C. (2017). Incomplete childhood immunization in Nigeria: a multilevel analysis of individual and contextual factors. *BMC Public Health,* 17(1), 236-239.

Alkenbracka , S., Kurowskib, C., Hafezc , R., Aladed, M., Odutolue , A. O., Ajiboyef ,A. G., Okunolag,O. O., & Loevinsohn, B. (2018).Health, Nutrition and Population (HNP) Discussion Paper Immunization Financing Assessment: Nigeria. Paper prepared for Health, Nutrition & Population Global Practice (HNP GP) World Bank Group, Washington DC, USA. Retrived from Immunization Financing Assessment : Nigeria (worldbank.org)

Centre for Disease Control (2009). Better childcare and maternal health.

Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education.* (7th ed.). Great Britain: Ashford Colour Press Ltd.

Dimitrova, A., Carrasco-Escobar, G., Richardson, R., & Benmarhnia, T. (2023). Essential childhood immunization in 43 low- and middle-income countries: Analysis of spatial trends and socioeconomic inequalities in vaccine coverage. Retrieved from https;//doi.org/10.1371/journal.pmed.10004166.

Duru, C., Iwu, A., Uwakwe, K., Diwe, K., Merenu, I., Emerole, C. et. al. (2016). Assessment of immunization status, coverage and determinants among under 5- year-old children in Owerri, Imo State, Nigeria. *OALib*, 03(06), 1-17.

Egesi, A. (2009). Medical effects of immunization programme on infants. *American journal of medicine, 23,* 6-11.

Ekerete, P. (2004). Promotional model-a new direction for national programme on immunization and oral rehydration therapy in Nigeria. *Monographs, 21,*1,100.

Ekwunife, A. (2009). African Traditional Religion: an overview of African belief system. a course book of social sciences. Nigeria: anampoly printing and publishing press Ltd

Ekem, H. (2008). A case study on factors militating against health care delivery system. Enugu: Joem associates Ltd.

Galadima, A.N., Zulkefli, N.A.M., Said, S.M. & Ahmad, N. (2021). Factors influencing childhood immunisation uptake in Africa: a systematic review. *BMC Public Health, 21*, 1475. https://doi.org/10.1186/s12889-021-11466-5

Gbefemi, B. (2010). Health education for community strategies for immunization programmes. *Journal of applied health sciences,9,11-18.*

Ihem, W. (2000). Factors that hinder community participation in immunization programme in Oroko in Igbo-eze South LGA of Enugu State. an unpublished B.Sc project report, University of Nigeria, Nsukka.

Jegede, A. (2007). What led to the Nigerian boycott of the polio vaccination campaign? *PLOSMed*, 4(3)e73. https://doi.org/10.1371/journal pmed.0040073

Katayama, R., & Wadhwa, D. (2019). Half of the world's poor live in just 5 countries. Avaliable from https://blogs.wprldbank.org/opendata/half-world-s-poor-live-just-5-countries.

Micheal, G., Aliyu, I., & Grema, B. (2019). Health financing mechanisms and extension of health coverage to the poor and vulnerable groups: what options are available in the Nigerian context? *Journal of Health Research and Reviews*, 6(3).

Nigeria Demographic and Health Survey (2018). Key indicators report. Nigeria: National Population Commission Abuja.

Nmezie, J.V. (2008). A guide to health. Moputo: project hope press Ltd

Okereke, I. (2009). Strategies for community participation in immunization programmes. Journal *Of Health Sciences, 9,* ,234-240.

Odi, U., Uchenna, E., Kenechi, O. S. (2014). Maternal sociodemographic factors that influence full child immunization uptake in Nigeria. *South African Journal of Child Health*, 8(4); 138-142. Doi: 10.7196/sajch.661

Omotara, A., & Okujagu, F. (2012). Assessment of knowledge, attitude and practice of stakeholders towards immunization in Borno State, Nigeria: Aqualitative approach. *Journal of Community Medicine, Health Education,* 2(9). https://doi.org/10.4172/2161-0711.1000181.

Ophori, E. A., Tula, M. Y., Azih, A. V., Okojie, R. &Ikpo, P. E. (2014). Current Trends of Immunization in Nigeria: Prospect and Challenges**.** *Trop Med Health. 42(2): 67–75.* Retrieved from doi: 10.2149/tmh.2013-13

Sheldon, J., Sarah, K., &Alons, S. (2003). Strategies for community participation in immunization Programme. *American journal of health sciences, 2,112-119.*

Sheerline, G. (2008). Elements of healthful living: New York: Book Company Inc

Victor, O. O., Daniel, E. O., Abiodun, P. O., Ayeni, G. O., & Olagbegi, O. M. (2019). Knowledge, Attitude and Practice of Pregnant women towards Antenatal Care in Fedral Medical Centre Jalingo, Taraba State, Nigeria. *EC Emergency Medicine and Critical Care*, 3(7; 465-471).

World Health Organization (2010). Twenty steps for developing a healthy cities project on immunization programme. Copenhagen, WHO Publications.

World Health Organization, & UNICEF (2014). Global immunization data. http://www.who.int/immunization/monitoring_surveillance/global_immunization_data.pdf?ua=1.

World Health Organization (2017). Survey finding from 2016 Multiple Indicators Cluster Survey/National Immunization Survey Coverage (MICS/NICS) in Nigeria.

World Health Organization (2020). Immunization coverage. Key facts. Retrieved from https://www.who.int/news-room/fact-sheets/detail/immunization-coverage

Yeung, K., Duclos, P., Nelson, E., & Hutubessy, R. (2017). An update of the global burden of pertussis in children younger than 5 years: a modelling study. Lancet Infect Dis.17(9):974–80. https://doi.org/10.1016/s1473-3099(17)30390-0.