Health Workers Perceived Hindrances to Implementation of National Programme on Immunization among People in Kwara State, Nigeria

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Abstract

Background: Childhood preventable illnesses that cause high rates of morbidity and mortality in Nigeria include poliomyelitis, tuberculosis, diphtheria, tetanus, measles, and hepatitis. Some factors prevent the effective implementation of the national immunization program among Kwara State residents, despite numerous interventions aimed at preventing them through routine immunization. This study investigated inadequate funding, lack of community involvement, and low public awareness as factors that prevented the implementation of the Kwara State's national immunization program.

Methods: A descriptive survey research design with 460 respondents was used in this study.

Results: The results showed inadequate funding, low community involvement, and low public awareness impede the successful execution of the national immunization program in Kwara State, Nigeria**.**

Conclusion: In Kwara State, Nigeria, inadequate funding, lack of community involvement, and lack of public awareness impede successful execution of the national immunization program.

Keywords: Health workers, immunization, national program, Nigeria

Introduction

Preventive care services are increasingly favored over curative services because of global efforts to ensure the highest possible standard of health. To achieve universal health coverage by 2000 and beyond, primary healthcare was adopted in 1978 by the joint assembly of the World Health Organization (WHO) and the United Nations International Children Emergency Fund (UNICEF). The World Health Organization (WHO) and UNICEF (1978) define primary healthcare as essential healthcare services that are practical, scientifically sound, and socially acceptable. These services should be universally accessible to individuals and families within the community at a cost that the community and country can afford to maintain. Primary healthcare services are vital components of a country's healthcare delivery system

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and should be available at every stage of development to foster self-reliance and self-determination.

The implementation of primary health care ushered in different component services, such as health education on prevailing health problems, provision of essential drugs, immunization against infectious diseases, and mental health. The primary healthcare service for immunization against infectious diseases was adopted in 1978 to prevent highly transmittable and deadly diseases. Immunization programs also prevent childhood killer diseases, such as tuberculosis, diphtheria, pertussis, tetanus, measles, and poliomyelitis. Ophori et al. (2014) and the Central Bank of Nigeria (1991) noted that immunization is a major component of primary healthcare services aimed at reducing the risks faced by children in Nigeria.

The term immunization refers to the process by which an individual's level of immunity is developed and sustained for optimal health and wellness. Simply put, immunization involves the introduction of antigens into the body to stimulate the production of antibodies that resist infectious diseases. Peter (2007) asserted that immunization is a means of acquiring specific immunity to microorganisms. Olajide (1998) stated that immunization involves the introduction of protective agents into a person's body to protect against communicable or infectious diseases.

From the colonial era onward, governments have prioritized immunization to prevent and manage both endemic and epidemic diseases. Before primary healthcare was adopted in 1978 to achieve health for all by the year 2000 and beyond, the immunization program was implemented as an incidental health action initiative on a general basis. According to the World Health Organization (2009) and National Population Commission (2009), the expanded immunization program, first implemented in 1978, was intended to routinely immunize adults and children under two years routinely. It initially showed promise before the coverage rate(s) gradually and steadily declined.

One year after its declaration in 1978, the expanded immunization program started in 1979 because of the need to efficiently implement the primary healthcare immunization component in an integrated health delivery approach. The expanded immunization program, according to the National Primary Health Care Development Agency (NPHCDA, 2012), aims to reduce morbidity and mortality from childhood preventable diseases such as poliomyelitis, tuberculosis, measles, diphtheria, pertussis, tetanus, yellow fever, and hepatitis B. The National Immunization Program has been implemented and has maintained low morbidity and mortality rates. The primary goals of the program are infection prevention and control in various target populations, including children, adults, the elderly, and pregnant women.

The National Primary Health Care Development Agency states that women of childbearing age, children aged 0–59

months, and other groups are the target population of the national immunization program. The Central Bank of Nigeria (1991) and NPHCDA (2012) emphasized that immunization services were first made available in Nigeria in 1956 during a serious smallpox outbreak. Since 1979, the expanded national immunization program has aimed to combat childhood diseases, which are the primary cause of Nigeria's high infant mortality rate. General immunization programs, also known as supplemental immunization programs, are designed to augment routine exercise in private and public-owned health centers and hospitals. This immunization schedule aims to correct lapses associated with regular immunization exercises. Baba (2000) emphatically stressed that general immunization exercise is a periodic immunization service rendered to people to improve service coverage(s) and address lapses noticed in routine immunization. Routine immunization exercise is an immunization schedule designed and administered daily. This is often referred to as a regular or daily immunization schedule. The exercise involves providing different immunization services to different categories of people within the target population. Baba (2000) noted that routine immunization exercises are services rendered to various categories of people within a specified geographical location to prevent infectious diseases.

Different strategies have been adopted to provide immunization services, whether routine or supplemental. The National Program on Immunization (2008) has identified the following strategies to ensure improvement in the uptake of immunization by eligible children:

1. Reach Every Ward (REW) method involves providing regular and effective immunization services at the ward level either through fixed post, mobile, or other outreach services.
2. The immunization health weeks program is a method by which certain weeks are set aside by the state and local governments to administer additional child survival vaccines to complement the routine immunization services.
3. Local immunization days have to do with a strategy to increase immunization coverage in areas with low coverage and poor access to routine immunization.
4. An Immunization Plus Days (IPDs) strategy involves providing more integrated child survival programs through routine and other intervention services, such as insecticide-treated nets, deworming exercises, and vitamin A supplements.

Field reports have shown that despite the inherent benefits and values of different immunizations, one of the major impediments to the successful implementation of a national program on immunization (NPI) is poor public enlightenment and community involvement in program execution.

Abdulraheem et al. (2011) and WHO (2012) posited that poor public enlightenment and misinformation militate against the effective uptake and implementation of immunization services in Nigeria. Ezeanolue et al. (2010) observed that poor communication and community involvement in the planning and implementation of routine and supplemental immunization are bottlenecks impeding effective immunization programs.

Misconceptions and superstitious beliefs hinder the implementation of national immunization programs, as vaccination is perceived as an attempt to reduce specific segments of society by either making them impotent or by reducing their immune level. This false impression led to the programme's rejection in some regions or geopolitical zones in Nigeria. Anyene (2014) asserted that one of the impediments to the effective uptake and implementation of a national immunization program is the northerners' belief that polio vaccination and other vaccines are part of a Western plot to sterilize young girls and eliminate the Muslim population. Babalola and Adewuyi (2005) reiterated that low confidence and lack of trust are some of the major impediments to the effective uptake of immunization services in Kano State, one of the states in northwest Nigeria. Besides, poor funding impedes the implementation of different components of national immunization programs carried out through routine and general exercises. This is evident from the inadequate provision of logistics and vaccines for immunization. Aahmadu (2012) observed that the implementation and uptake of immunization programs are hindered by insufficient financing and inadequate supply of logistics.

General and routine immunization exercises are often performed by a few personnel and by ad hoc staff members. The quality and commitment of some local immunization guards and health workers engaged in general and routine exercises are inadequate for attaining program objectives. Aahmadu (2012) and Ezeanolue et al. (2010) posited that health workers' poor attitudes, behaviors, and skills mar the smooth implementation of immunization programs. The researchers further identified poor facilities and inadequate staff strength as stumbling blocks for smooth implementation of the national immunization program. Ado (2013) stressed that poor staff performance at the state and local government levels obstructs the effective implementation of immunization programs in Nigeria. The National Program on Immunization (2008) stressed that inadequate training and retraining of program managers and supporting personnel hinders the effective implementation of national immunization programs.

The glaring issue with implementing the national immunization program is the public officers' lack of political will and commitment. This is evident in their indifferent attitude toward releasing funds for various immunization components, including unqualified locals in the program (Anyene, 2014). Kaufinann and Feldbanum (2009) stated that politics

has played a major and frequently destabilizing role in routine immunization uptake in Nigeria since 1979, when an expanded program on immunization was established. Aahmadu (2012) opined that insincerity in the appointment of coordinators and supporting staff is a major hindrance to the effective implementation of immunization programs. The National Program on Immunization (2009) and Baba (2009) claimed that politicians often took control of the program using it as a political reward, leading to the involvement of untrained personnel in the implementation. Therefore, this study examined health workers' perceived hindrances to the implementation of a national immunization program among people in Kwara State, Nigeria.

The immunization component of primary healthcare was adopted to prevent and control deadly communicable diseases affecting people at the grassroots level. Immunization schedules and services are carried out on a general and routine basis. General immunization schedules are intervention services aimed at complementing routine immunization services. The current trends in how immunization programs are being carried out (e.g., reaching every ward, immunization health weeks, local immunization days (lids), immunization plus, etc.) need to be reappraised. This is evident from the low uptake of both routine and general vaccination programs, the high rate of immunization defaulters, and poor public awareness. This scenario has led to a persistent increase in morbidity and mortality rates resulting from preventable deadly diseases for which immunization has been undertaken. Previous immunization records in Kwara State revealed a resurgence of some diseases, such as poliomyelitis, measles, and cerebrospinal meningitis, despite all the acclaimed multiple vaccinations carried out in the area. In 2009, it was reported that people in some parts of Kwara State refused immunization/ vaccination in these regions, which stemmed from poor public awareness and a lack of community involvement.

It has been observed from previous immunization exercises that there is a low political commitment on the part of elected government officials (Baba, 2009). Most politicians at the helm of affairs at the grassroots level in Kwara State use immunization programs as "spoil of office." Politicians hijacked immunization programs from program managers under the pretense of quality assurance and sustainability. The dominance and overbearing influence of public office holders cause dismal performance in the implementation of national immunization programs in most local government areas in Kwara State (Baba, 2000).

In addition to poor public enlightenment and community involvement, immunization programs are generally impeded by poor funding, insufficient manpower, and misconceptions about the program. The situation is further heightened and alarming when considering the number of general and routine immunizations carried out annually in Kwara State. The

purpose of this study was to address the issues mentioned earlier and fill this gap. Therefore, this study was guided by the following research questions:

Research Questions

1. What are the health workers' perceptions of poor public enlightenment in program execution as a hindrance to the effective implementation of a national immunization program among people in Kwara State, Nigeria?
2. What are the health workers' perceptions of the lack of community involvement in program execution as a hindrance to the effective implementation of national immunization programs among people in Kwara State, Nigeria?
3. What are the health workers' perceptions of poor program funding as a hindrance to the effective implementation of the national program on immunization among people in Kwara State, Nigeria?
4. What are the health workers' perceptions of inadequate utilization of qualified personnel and poorly trained ad-hoc staff as a hindrance to effective implementation of the national program on immunization among people in Kwara State, Nigeria?
5. What are the health workers' perceptions of misconceptions and superstitious beliefs as hindrances to the effective implementation of the national program on immunization among people in Kwara State, Nigeria?
6. What are the health workers' perceptions of poor political will and commitment by public office holders as hindrances to effective implementation of the national program on immunization among people in Kwara State, Nigeria?

Methodology

This study employed a descriptive survey design. The study population comprised of all medical personnel employed by public and private health facilities in Kwara State. A multistage sampling technique was used to select the study participants. In the first stage, the State was stratified into sixteen (16) local governments. In the second stage, private and public health facilities were selected using a cluster sampling technique. The third stage involved the selection of ten percent (10%) of all operating private and public health facilities that provided immunization services using the proportionate sampling technique. In the final stage, five (5) health workers were chosen from each of the selected health centers, and the local immunization officer, cold chain officer, and statistical officer in each of the sixteen (16) local

governments were chosen using the purposive sample technique.

The researcher developed a questionnaire validated by three (3) experts from the University of Ilorin's Department of Health Promotion and Environmental Health Education. The questionnaire was then used to gather data. The test-retest method was employed to assess the reliability of the research instrument, resulting in a correlation coefficient of 0.88. The data was analyzed using the chi-square statistical method with a significance level (alpha) set at 0.05.

Results

Hypothesis 1: Health workers' perception of low public awareness of program execution has no statistically significant hindrance to implementing the national immunization program in Kwara State, Nigeria.

Based on a significance level of 0.05 and a degree of freedom of six, the analysis of hypothesis 1 in Table 1 reveals a computed chi-square (χ^2) value of 26.93, which is greater than the critical value of 12.59. Therefore, the hypothesis was rejected, indicating that insufficient public awareness hinders the successful implementation of Kwara State's national immunization program.

Table 1

Chi-Square Analysis of Health Workers' Perception of Public Awareness of Program Execution

S/N	ITEMS	SA	A	D	SD	RT	Df	Cal. Value	Crit. Value	Dec.
1.	Poor information dissemination to people on date of commencement of the program(s) impedes uptake of immunization	65 (80%)	390 (361.67%)	4 (13%)	1 (5.33%)	460				
2.	Lack of awareness creation by health workers on benefits inherent in immunization often account for its misconceptions	95	345	15	5	460		26.93	12.59	Hypothesis Rejected
3.	Inadequate feedback on the implementation program(s) performance also obstruct its effective implementation	80	350	20	10	460	6			
	Total	**240**	**1085**	**39**	**16**	**1380**				

Hypothesis 2: Health workers' perception of lack of community involvement in program execution has no statistically significant hindrance to implementing the national immunization program in Kwara State, Nigeria.

Utilizing six degrees of freedom and a 0.05 alpha level of significance, the examination of hypothesis 2 in Table 2 produced a computed chi-square (χ^2) value of 17.90, which is greater than the critical value of 12.59. As a result, the null hypothesis for hypothesis two is rejected. This finding suggests that the absence of community involvement in the implementation of an immunization program typically impedes its effectiveness.

Table 2

Chi-Square Analysis of Health Workers' Perception of Community Involvement in Program Execution

S/N	ITEMS	SA	A	D	SD	RT	Df	Cal. Value	Crit. Value	Dec.
1.	Low coverage of immunization exercise often resulted from poor community participation	125 (151.67%)	315 (290%)	18 (14%)	2 (4.33%)	460	6	17.90	12.59	Hypothesis Rejected
2.	Poor community mobilization frequently stalls people support for implementation of immunization program(s)	150	290	14	6	460				
3.	Immunization exercise failed due largely to poor integration of stakeholders within the target population	180	265	10	5	460				
	Total	**455**	**870**	**42**	**13**	**1380**				

Hypothesis 3: Health workers' perception of the program's inadequate funding has no statistically significant hindrance to the execution of the national immunization program in Kwara State, Nigeria.

The analysis of hypothesis 3 in Table 3 resulted in a computed chi-square (χ^2) value of 19.64 at the 0.05 alpha significance level compared to a critical value of 12.59, with a degree of freedom of 6. As stated above, Hypothesis three was rejected because the calculated value exceeds the critical value. This suggests that inadequate funding for programs hinders the successful implementation of the national immunization program in Kwara State, Nigeria.

Table 3

Chi-Square Analysis of Health Workers' Perception of Program Funding

S/N	ITEMS	SA	A	D	SD	RT	Df	Cal. Value	Crit. Value	Dec.
1.	Embezzlement of funds earmarked for the program usually hinders smooth implementation of immunization program(s)	145 (145%)	290 (300.67%)	20 (10.67%)	5 (3.66%)	460	6	19.64	12.59	Hypothesis Rejected
2.	Poor and untimely released of fund for programs often hinder immunization exercise	160	290	8	2	460				
3.	Inadequate mobilization and utilization of both human and material resources needed for program implementation often stall immunization exercises	130	322	4	4	460				
	Total	**435**	**902**	**32**	**11**	**1380**				

Hypothesis 4: Health workers' perception of insufficient use of qualified personnel and inadequately trained adhoc staff have no statistically significant hindrance to the execution of the national immunization program in Kwara State, Nigeria.

In the examination of hypothesis 4, at the 0.05 alpha level of significance, the calculated chi-square (χ^2) value is 20.57, which is greater than the critical value of 12.59 with a degree of freedom of six, as shown in Table 4. This leads to the rejection of the hypothesis, indicating that the national immunization program in Kwara State is significantly hindered by the underutilization of qualified personnel and poorly trained ad hoc staff.

Table 4

Chi-Square Analysis of Health Workers' Perception of Personnel

S/N	ITEMS	SA	A	D	SD	RT	Df	Cal. Value	Crit. Value	Dec.
1.	Immunization exercises are often hindered by engagement of unqualified personnel by the program coordinators.	150 (150%)	305 (296.67%)	3 (9%)	2 (4.33%)	460	6	20.57	12.59	Hypothesis Rejected
2.	Immunization exercises are often forestalled because of the overbearing greed of the program managers such as local immunization officers, focal persons, cold-chain officers and so on	170	270	15	5	460				
3.	Insufficient training of ad-hoc staff such as local guards, recorders, vaccinators, and so on often impedes effective program implementation	130	315	9	6	460				
	Total	**450**	**890**	**27**	**13**	**1380**				

Hypothesis 5: Health workers' perceptions of misconceptions and superstitious beliefs have no statistically significant hindrance to the execution of the national immunization program among the population of Kwara State, Nigeria.

In Table 5, the analysis of hypothesis five, conducted with a degree of freedom of six and at a significance level of 0.05, reveals a computed chi-square (χ^2) value of 29.59, which is greater than the critical value of 12.59. Consequently, this hypothesis has been rejected, indicating that misconceptions and superstitious beliefs hinder the successful implementation of the national immunization program in Kwara State. The results of this study suggest that efforts should be directed toward addressing these misconceptions and beliefs to improve the effectiveness of immunization programs.

Table 5

Chi-Square Analysis of Health Workers' Perception of Misconceptions and Superstitious Beliefs

S/N	ITEMS	SA	A	D	SD	RT	Df	Cal. Value	Crit. Value	Dec.
1.	The belief that immunization given to people usually caused sterility often result into low service coverage.	125 (141.67%)	325 (309%)	7 (5.67%)	3 (3.66%)	460				
2.	The misconception by people that immunization reduces reproductive effectiveness and efficiency often leads to poor service uptake	140	312	4	4	460		29.59	12.59	Hypothesis Rejected
3.	Immunization exercise is often impeded by the belief that it reduces life span and longevity	160	290	6	4	460	6			
	Total	**425**	**927**	**17**	**11**	**1380**				

Hypothesis 6: Health workers' perceptions of public officeholders' lack of political will and commitment to the national immunization program have no statistically significant hindrance to the program's implementation in Kwara State, Nigeria.

In Table 6, the computed chi-square (χ^2) value is 17.09, while the critical value is 12.59. The hypothesis is rejected because the calculated value is higher than the critical value. This suggests that the lack of political will and commitment among public officeholders hampers the effective implementation of the national immunization program in Kwara State.

Table 6

Chi-Square Analysis of Health Workers' Perception of Public Officeholders

S/N	ITEMS	SA	A	D	SD	RT	Df	Cal. Value	Crit. Value	Dec.
1.	The recruitment of ad-hoc staff based on political considerations rather than sincerity and merit hinders effective implementation of immunization programs.	180 (163.33%)	272 (289%)	6 (5%)	2 (2.67%)	460	6	17.09	12.59	Hypothesis Rejected
2.	The use of immunization exercises as spoils of office or means by which the politicians settle the electorate to participate in the program serves as hindrance.	135	315	8	2	460				
3.	Poor commitment and support by the politicians at the helm of affairs account for another hindrance to implementation of immunization program	175	280	1	4	460				
	Total	**490**	**867**	**15**	**8**	**1380**				

Discussion

The results of hypothesis 1 demonstrate that insufficient community involvement and public awareness impede the successful implementation of the national immunization program in Kwara State. The primary causes of this issue include inadequate communication regarding the program's commencement dates, inadequate education regarding the cumulative advantages of participation, and inadequate assessment of the program's effectiveness. This finding aligns with the findings of WHO (2012) and Abdulraheem et al. (2011), who reported that misinformation and low public awareness of vaccination programs hinder their effective uptake and delivery in Nigeria. Additionally, this result supports the conclusion reached by Ezeanolue et al. (2010), who found that some of the obstacles to immunization programs include insufficient communication and lack of community involvement in the planning and execution of routine and supplemental vaccinations.

The analysis of hypothesis 2 revealed that immunization programs in Kwara State are hindered by a lack of community involvement. This has led to low immunization coverage, ineffective community mobilization, insufficient community participation, and a lack of stakeholder integration within the target population. This finding aligns with Aahmadu's (2012) and Ezeanolue et al.'s (2010) conclusions that negative attitudes, actions, and incompetence among some healthcare professionals have impeded the effective implementation of immunization programs.

The results of hypothesis 3 show that limited funding for programs restricts the implementation of the national immunization program in Kwara State, Nigeria. This is commonly due to the embezzlement of allocated funds, the inadequate and tardy release of

finances, and insufficient mobilization and utilization of the necessary material and human resources for program implementation. This result is consistent with the findings of Aahmadu (2012), who discovered that low budget allocations and misappropriation of meager funds impede the uptake and execution of immunization programs.

The analysis of tested hypothesis 4 showed that insufficient use of skilled workers and inadequately trained ad hoc staff impedes the success and execution of the national immunization program in Kwara State, Nigeria. According to the results of the four hypotheses tested, the national immunization program in Kwara State, Nigeria, cannot be implemented smoothly due to the involvement of unqualified personnel, the avarice and dominance of program managers, and the inadequate training of ad hoc staff. This research supports Ado's (2013) and the National Program on Immunization (2008) findings that poor staff performance in State and Local Government immunization exercises stemmed from insufficient training and retraining of program coordinators and supporting staff. This often impedes the successful execution of national immunization programs.

The analysis of tested hypothesis 5 showed that superstitious beliefs and misconceptions among the populace significantly impede the successful execution of the national immunization program in Kwara State, Nigeria. The belief held by individuals and their offspring regarding immunization is that the program is intended to shorten life expectancy, decrease fertility, or cause sterility in those immunized. This result is consistent with those of Anyene (2014) and Babalola and Adewuyi (2005), who found that some individuals think that offering vaccination services is a clever scheme to sterilize young girls and reduce the Muslim population.

The evaluation of tested hypothesis 6 showed that public officeholders' lack of political commitment would significantly impede Kwara State, Nigeria's national immunization program, from being implemented effectively. This result further demonstrates how political considerations play a major role in recruiting immunization ad hoc staff, how politicians at the top use immunization as a political prize, and how poorly they commit to carrying out their programs. This result was consistent with Anyene (2014) and Kaufmann and Feldbaum's (2009) findings that starting in 1979, when an expanded immunization program was established, politics significantly and frequently destabilized the impact on the uptake of routine vaccinations in Nigeria. This result supports the findings of Aahmadu (2012), Baba (2009), and the National Programme on Immunization (2009) that politicians took control of the program and appointed unqualified coordinators, unskilled health workers, and fictitious support staff.

Conclusion

The study results indicate several impediments to the successful execution of the national immunization program

in Kwara State, Nigeria. These obstacles are primarily caused by the government's lack of commitment, the incompetence of program coordinators, and insufficient involvement of the community. The research concludes that insufficient public awareness of the program's implementation hinders its success in Kwara State. Another significant challenge is the absence of community participation throughout the implementation process. Additionally, inadequate funding prevents the program from being implemented effectively in Kwara State. The underutilization of qualified personnel and employment of untrained ad hoc staff also contribute to this problem. Moreover, misconceptions and superstitious beliefs impede the program's success. Lastly, the lack of political will and dedication on the part of public office holders exacerbates the issue.

Recommendations

The study's findings led to the following recommendations:

1. Increase effective awareness campaigns on the importance of national immunization programs by health workers, relevant agencies, mass media, and the Ministry of Information and Culture.
2. Involve different interest groups in the community to actively participate in all aspects of program implementation.
3. Improve the financial strength and funding capacity of immunization agencies by governments at various levels, non-governmental organizations, and donor agencies for effective program implementation.
4. Base the selection of healthcare providers and ad-hoc staff on merit rather than political consideration.
5. Mount campaigns and health education programs to address misconceptions and superstitious beliefs about immunization services.
6. Ensure accountability and prevent embezzlement or diversion of funds allocated to the program by public office holders and program coordinators.
7. Avoid using the immunization program to fulfill campaign promises to the electorate or constituency.

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