

Original Research Article

Parents and caregivers' perceptions on content and channels of communication on immunization service messages in Anambra state, Nigeria implication for action

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ABSTRACT

Background: Effective communication is key to ensuring that barriers to childhood vaccination are tackled. Most times the source and content of information fails to deliver the necessary information needed to make proper decision children's vaccination. This study explored the perception of communication messages and the different channels used in delivering messages on vaccination among parents/caregivers in Anambra State, Nigeria.

Methods: A descriptive cross-sectional study was conducted in Anambra State, Nigeria among parents/caregivers with children aged 0-59 months. A multistage sampling method was used. Questionnaire was used for data collection and analyzed using IBM SPSS version 23. Chi square test was used for association at $p < 0.05$.

Results: Findings show that the overall awareness and knowledge was very high 306 (95.6%). Majority 216 (67.50%) of the respondents only receive the key immunization messages during campaigns. Most preferred channel of delivery was through religious groups 273 (85.3%). followed by town announcers 270 (84.4%). Overall, 175 (54.7%) were positive on messages given during Immunization campaigns. Higher proportion agreed that immunization messages are better reinforced if both parents are targeted 309 (98.6%). There were statistically significant association of overall awareness and knowledge with age $p = 0.043$, gender $p = 0.006$, educational level < 0.001 and occupation $p = 0.001$. There were no statistically significant association of overall perception with characteristics of respondents.

Conclusions: Parents/caregivers' perceptions of immunization messages can influence social change and increase immunization uptake. Both parents of the children should be targeted whenever immunization messages are to be disseminated.

Keywords: Channels, Knowledge, Perception communication messages, Vaccination parents/caregivers

INTRODUCTION

Immunization remains one of the most successful and cost-effective public health interventions for disease prevention especially vaccine preventable diseases (VPDs). This is because immunization provides significant savings by avoiding the direct and indirect costs associated with treating the disease and possibly the long-term disability that these diseases can cause if not prevented.¹ Routine immunization (RI) is the sustainable, reliable and timely interaction between the vaccine, those who deliver it and those who receive it to ensure every

child is fully immunized.² It is the foundation through which lifesaving vaccines can be used to prevent and eradicate VPDs.³ Low level of immunization constitute a public health problem which is why in 1998, following the millennium development goals (MDGs) and the United Nations General Assembly Special Session (UNGASS) goals, the Federal government of Nigeria laid out the core activities of expanded programme on immunization (EPI) policies which will help monitor improvement in the uptake of childhood vaccination in the country.⁴ Globally, 2-3 million children die every year from VPDs.⁵ In Sub-Saharan Africa, 60% of deaths

are caused by measles, one of the VPDs.⁶ Although, Africa has made some progress in the coverage of immunization services, large numbers of children still remain unvaccinated and/or under-vaccinated.^{7,8} A reported in Nigeria documented that 22% of deaths among children were caused by VPDs.⁹ The World Health Organization (WHO) equally estimated that close to a million children under the age of five years die in Nigeria each year from VPDs.¹⁰ Despite these only a quarter of eligible children in Nigeria receive all recommended vaccinations. Nigeria's immunization coverage has fluctuated significantly over the years, with wide variations across regions.^{11,12} In recent years, the coverage of DPT3/Penta 3, a key indicator of a country's performance of RI, has fallen from 52% in 2014 to 33% in 2016; which is well below the 90% coverage benchmark recommended by WHO for the sustained control of VPDs.⁸

The goal of RI is to ensure that immunization services are accessible, available, acceptable and affordable.³ Although the benefits of immunization have been tremendous globally, yet immunization coverage in many countries have been levelling off either due to poor policies or due to problems in implementation.⁷ Several articles have explained the reasons behind the low coverage and why people are refusing recommended vaccinations.^{7,8,13-17} The reasons include: perception and attitude of mothers towards childhood vaccination; lack of information; misappropriation of information about immunization; accessibility of vaccination clinics, poor health workers-parents' interaction, and conflicting messages on the safety and benefits of childhood vaccination. It could also be grouped as health system factors, human resource factors, political factors and community level factors.¹³⁻¹⁷ Though a few studies have been conducted on these, they are limited both in number and scope.^{3,4,11}

Across the globe, the level of awareness to childhood vaccination varies. Research conducted in America and Germany, showed that the level of awareness to childhood vaccination is high which led to high immunization coverage; while in Pakistan, China and Nigeria, there are low levels of awareness on childhood vaccination which resulted in sub-optimal coverage.¹⁸⁻²⁰ Ironically, the level of awareness on childhood vaccination decreases once the common childhood diseases become rare.¹⁴ However, awareness can be created and strengthened through integrating immunization services with other health services; hence, improving vaccine uptake.²¹ For instance, any contact that a health worker has with a child or parent at a health facility is an opportunity to check immunization status of the child; if need be, administer vaccine and as well, educate the parent on the importance of childhood vaccination.²¹ In Nigeria, research has shown that vaccination-related messages varied in content, depending on the source of information.¹³ It also vary across States and mostly become in-depth during

campaigns. In Anambra State, south east Nigeria it was observed that parents/caregivers had poor knowledge on most of the key immunization messages; such as the type of vaccines given to children and the routine immunization schedule.⁷

An important function of communication to parents about vaccination is to provide information on the role of vaccination in their setting, vaccine effectiveness, and potential side effects. This is predicated on the fact that parents are educated consumers who can swap and discuss information regarding immunization hazards and benefits.⁷ However, a major barrier to vaccination uptake for many individuals is a lack of appropriate and/or inadequate information about these issues which can negatively affect vaccination rates and undermine vaccine acceptance.^{6,8} Parents/caregivers' perception on childhood immunization is vital in improving uptake of immunization services. Communication is a transactional process through which information is shared using certain rules and methods.²² Therefore, integrating these communication rules and methods into immunization communication activities, an effective immunization communication can be achieved. According to WHO, communication can be verbal and non-verbal.²³ Most communication during immunization sessions are non-verbal and this can be conveyed in so many ways such as; posture, facial expressions, gestures, eye contact and attitudes.²³

Several studies have suggested that parents' good understanding of VPDs, how vaccination works and the vaccination schedule can contribute to children being vaccinated.^{7,15,20,24} That is to say, an effective communication through the right delivery channel and source can promote childhood vaccination acceptance. Although evidence of the effectiveness of communication interventions in improving vaccination uptake is limited and mixed, effective communication with parents is likely to be a key factor in improving childhood vaccination coverage, tackle vaccine hesitancy and overcome barriers to childhood vaccination.¹³ Furthermore, anti-vaccination messages through different sources and channels that parents might have access to; have caused parents to have complex views about childhood vaccination messages, thereby affecting their attitude towards vaccination.^{24,25}

There are three key indicators that can affect how communication messages are received by parents including; the source, the content and the delivery channel.^{13,15,25} The more trusted these are, the greater the likelihood that the message will achieve its desired objective. The content of information on immunization received by most parents varies by locality and has been reported to focus sometimes on other health strategies such as nutrition, personal hygiene, child care.^{13,25} The childhood vaccination messages delivered to parents/caregivers lack most of the key immunization messages.^{13,15,25} A parent's trust in the source of

information may be more important than what is in the information.²⁶

Health professionals are major source of information, however, poor attitude of health professionals or other sources of information and the inability of the health professional to devote time to listening to patients' narratives during sessions or failure to supply enough information can make them think that these vaccination messages are irrelevant to their situation.¹⁵ Therefore, targeting other sources parents trust and utilizing them in disseminating information on childhood vaccination can help prevent or reduce vaccine hesitancy and improve immunization coverage. They include traditional rulers, town announcers, churches, mass media such as radio and television jingles and text messages and social media such as face book, YouTube, etc.^{14,17} This was supported by articles which elaborated that the literacy level of parents, diverse cultural practices and delivery channels are to be put into consideration while designing or constructing vaccination messages.^{27,28} Social marketing principles was also advocated.¹⁴

Communicating immunization messages without taking cognizance of such preferences to channels could be one of the factors affecting caregivers' attitude and response to immunization services. Therefore, this research is centered on parents/caregiver's awareness and perceptions of routine immunization messages, their delivery channels preferences for communicating these messages and factors that affect these preferences in Anambra State for it could be an important step towards designing better communication strategies for improved immunization service uptake in Anambra State.

METHODS

Study area

The study was conducted in three local government areas (LGAs) in Anambra State Southeast Nigeria. The state covers an area of 4865 square kilometers; with a population estimated at 5,821, 858 as of 2006.²⁹ Anambra has a high density of almost 1,000 people per square kilometer that contributes 3% of Nigeria's population. There are a total of 1485 health facilities across all 21 LGAs in Anambra State. Of this number, 92 % (1360) are primary health care facilities.³⁰

Study design

This was a descriptive cross-sectional design using quantitative method of data collection tool.

Study population

It was conducted among parents/caregivers who have children aged 0 to 59 months. This age range was chosen to reflect the children receiving routine immunization. However, those that have not lived in the locality for 3

months or more during the study period and those who declined were excluded from the study.

Sample size

The minimum sample size required for this study was calculated using the Cochran formula as follows: $n = z^2 pq/d^2$ using confidence level (z) of 95%, p = proportion of under 5 children (p) of 20% or 0.2, q = 1 - p which is 0.80 and degree of accuracy desired (d) of 0.05. A total of 256 was gotten, however 320 parents/caregivers were studied.

Sampling method

Multistage sampling technique was used involving three stages. At stage 1; three LGAs were selected from the three senatorial zones in Anambra State by simple random sampling by balloting without replacement. At stage 2: four wards from each of these LGAs were also selected by simple random sampling by balloting without replacement. At stage 3: for each ward selected, households were selected using WHO Lot quality assurance sampling (LQAS) strategy; where if the ward is less or equal to 20 households/compounds, random selection of the first household using a table of random numbers was used. While if the ward was more than 20 households/compounds, it was divided into equal sectors from which one is selected and studied. For random selection of household, the centre of the ward was located, a pen was spun and the direction in which the tip of the pen points was made the starting point of the survey, that is, for the selection of the first house. At each household, a parent/caregiver of the child was interviewed; but when both parents are found in the house, some fathers preferred that their wives be interviewed as they are the ones that take their child for immunization or they are more knowledgeable about immunization than them. While some fathers chose to be interviewed if their wives were busy.

Data collection tool and method

Semi-structured interviewer-administered questionnaire was used to collect information from the parents/caregivers over 3 months (July to September 2021). Two research assistants were trained on how to collect the data using the questionnaires in electronic form (open data kit platform). The questionnaire was designed to collect information on the following key areas; Socio-demographic characteristics of parents and the child, awareness and knowledge on key immunization messages, channels of delivery of immunization messages and their most and least preferred channel of delivery, perception of messages given during RI/campaigns, and parental/caregivers' opinions. The research questionnaire was pretested in Abakaliki LGA in Ebonyi State which has similar characteristics to Anambra state especially in terms of having poor immunization coverage according to the National

immunization coverage survey carried out in August, 2016 to January, 2017.¹¹

Ethical clearance for the research was obtained from Health Research and Ethics Committee of the University of Nigeria Teaching Hospital (UNTH), Enugu. Permission was also obtained from Anambra State Ministry of Health. The study participants were informed of the objectives of the study and their informed consent obtained orally as well. Also, right to withdraw from the study at any time by the participants was guaranteed. Confidentiality of the data was maintained.

Data analysis

Having used open data kit (ODK) for data collection, the completed/filled forms were downloaded, collated then analyzed using IBM SPSS version 23 software. Data were summarized using frequencies and proportions. Also, Chi-square test was used to determine factors associated with perception of parents/caregivers of immunization messages at significant level $p < 0.05$.

RESULTS

Table 1 shows characteristics of participants. The mean age of parents/guardians was 32.03 (7.40) years with majority aged 25 to 34 years 209 (65.3%).

Table 1: Characteristics of parents/guardians.

Variables	Frequency (n=320)	Percent
Age (years)		
<25	22	6.9
25-34	209	65.3
>34	89	27.8
Mean (SD)	32.03 (7.40)	
Gender		
Female	289	90.3
Male	31	9.7
Educational level		
Primary	6	1.9
Secondary	123	38.4
Tertiary	191	59.7
Occupation		
Civil/public servant	121	37.8
Trading	98	30.6
Skilled worker	45	14.1
Unemployed/student/corper	30	9.4
Health worker	26	8.1
Sex of child		
Female	157	49.1
Male	163	50.9

Higher proportion 289 (90.31%) of the parents/guardians were females and 191 (59.7%) had tertiary education. Civil/public servants 121 (37.8%) followed by trading 98

(30.6). The gender of the children were approximately equal females 157 (49.1%) and males 163 (50.9%).

Table 2: Awareness and knowledge on key immunization messages by parents/guardians.

Variables	Yes	No
	N (%)	N (%)
Have received any messages on childhood immunization	310 (96.9)	10 (3.1)
Have received information on the benefits of childhood immunization and the effects of not immunizing a child	306 (95.6)	14 (4.4)
Have received information on date, place and time of the next visit of my child's immunization	300 (93.8)	20 (6.3)
Aware of the age bracket of children to be immunized	296 (92.5)	24 (7.5)
Knowledge on the type of vaccine a child should receive during routine immunization and campaigns against a particular disease e.g. polio, measles	277 (86.6)	43 (13.4)
Knowledge on the side effects of some vaccines given to children and how to treat them	218 (68.1)	102 (31.9)
Aware that a child should be brought for immunization even if he/she is sick	82 (25.6)	238 (74.4)
Knowledge that immunization card of a child should be taken care of and as well, bring it every time child needs to be immunized at the health center	292 (91.3)	28 (8.8)
Knowledge that immunization is free and safe	307 (95.9)	13 (4.1)
	Good	Poor
Overall awareness and knowledge	306 (95.6)	14 (4.4)

Table 2 shows awareness and knowledge on key immunization messages by parents/guardians. The overall awareness and knowledge were very high 306 (95.6%). Based on specific, those that; have received messages on childhood immunization were 310 (96.9%), received information on the benefits of childhood immunization and the effects of not immunizing a child 306 (95.6%), received information on date, place and time of the next visit of my child's immunization 300 (95.6%), know that immunization is free and safe 307(95.9%). However, limited parents/guardians were aware that a child should be brought for immunization even if he/she is sick 82 (25.6%).

Table 3: Frequency of reception, known and preferred channels of delivery of immunization messages by parents/guardians.

Variables	Frequency (n=320)	Percent
Frequency of reception		
Don't hear or receive any messages	7	2.19
Intermittently (that is, only during campaigns)	216	67.50
Regularly (that is, during and after campaigns)	97	30.31
Known channels		
Religious group	274	85.63
Health worker	263	82.19
Town announcer/loudspeaker	262	81.88
Neighbours/friends	224	70.00
Community leader	192	60.00
Banner/billboards	130	40.63
Women's group	80	25.00
Family members	76	23.75
Radio	73	22.81
Mobile phones/SMS	25	7.81
Television	25	7.81
Polio campaign vaccinator	21	6.56
Others (schools)	17	5.31
Poster/handbill	12	3.75
Don't know	3	0.94
Internet/social media	2	0.63
Most preferred channels of delivery		
Religious group	273	85.31
Town announcer/loud speaker	270	84.38
Health worker	180	56.25
Neighbors/friends	127	39.69
Community leader	75	23.44
Banner/billboard	68	21.25
Radio	49	15.31
Mobile phones/SMS	36	11.25
Women's group	23	7.19
Television	23	7.19
Others	20	6.25
Family members	18	5.63
Internet/social media	17	5.31
Polio campaign vaccinator	9	2.81
Poster/handbill	8	2.5
Don't know	2	0.63

Table 3 shows frequency of reception, known channel and most preferred channels of delivery of key immunization messages by parents/caregivers. Majority 216 (67.50%) of the respondents only receive the key immunization messages during campaigns, while 97 (30.31%) receive the messages both during routine immunization and campaign. Also 7 (2.19%) have not heard any key immunization messages. The commonest known channel of delivery is through religious groups

274 (85.63%). This is followed by health workers 263 (82.19%), Town announcer/Loud speakers 262 (81.88%) and neighbours/friends 224 (70.0%). The least was internet/social media 2 (0.63%). It also shows that the preferred channel of delivery is through religious groups 273 (85.3%). This is followed by town announcer/loud speakers 270 (84.4%) and health worker 180 (56.3%). The least was poster/handbill 8 (2.5%).

Table 4: Perception and opinion on messages given during routine immunization or campaigns for parents/guardians.

Perception	Positive	Negative
	N (%)	N (%)
Every immunization message is always clear to me	309 (96.6)	11 (3.4)
Most messages given during routine immunization or campaigns are not always related to immunization	132 (41.3)	188 (58.8)
The messages received during routine immunization or campaigns encourage me to take my child/ward for vaccination against vaccine preventable diseases	315 (98.4)	5 (1.6)
The messages I receive are too much to understand, which makes it difficult to remember	72 (22.5)	248 (77.5)
Language barrier affects how I receive and understand the immunization messages communicated to me	67 (20.9)	253 (79.1)
Overall perception	175 (54.7)	145 (45.3)
Parental/ caregivers' opinions	Good	Poor
Immunization messages are better reinforced if both parents are targeted and not just one parent (that is, the mothers)	309 (96.6)	11 (3.4)
Immunization messages get to the grass root when they are passed through gate-keepers; for example, religious, opinion leaders and community leaders	298 (93.1)	22 (6.9)

Table 4 shows perception and parental/ caregivers' opinions on messages given during Routine Immunization or campaigns. Overall, 175 (54.7%) were positive and 145 (45.3%) negative on perception on messages. Majority were positive that immunization messages are clear to them 309 (96.6%) and encourage them to take their children for vaccination 315 (98.44%). Also, 132 (41.25%) were positive that most messages are not always related to immunization. Higher proportion were negative that language barrier affects how they receive and understand the immunization messages 253 (79.1%) and the messages received are too much for them to understand 248 (77.5%). It equally shows that majority

of parents/caregivers agree that immunization messages are better reinforced if both parents are targeted 309

(98.6%) and that immunization messages get to the grass roots when passed through gate-keepers 298 (93.13%).

Table 5: Factors that influencing parent’s/caregivers’ awareness and knowledge of immunization messages for parents/guardians.

Overall awareness and knowledge				
Variables	Good (n=306)	Poor (n=14)	χ^2 test	P value
	N (%)	N (%)		
Age (years)				
<25	19 (86.4)	3 (13.6)		
25-34	204 (97.6)	5 (2.4)	6.32	0.043#
>34	83 (93.3)	6 (6.7)		
Gender				
Female	280 (96.9)	9 (3.1)	7.44	0.006#
Male	26 (83.9)	5 (16.1)		
Educational level				
Primary	4 (66.7)	2 (33.3)		
Secondary	112 (91.1)	11 (8.9)	20.76	<0.001#
Tertiary	190 (99.5)	1 (0.5)		
Occupation				
Civil/public servant	121 (100.0)	0 (0.0)		
Trading	90 (91.8)	8 (8.2)		
Skilled worker	41 (91.1)	4 (8.9)	FT	0.001#
Unemployed/student/corper	28 (93.3)	2 (6.7)		
Health worker	26 (100.0)	0 (0.0)		
Sex of child				
Female	150 (95.5)	7 (4.5)	0.05	0.943
Male	156 (95.7)	7 (4.3)		

Table 6: Factors that influencing parent’s/caregivers’ perception of immunization messages for parents/guardians.

Overall perception				
Variables	Good (n=175)	Poor (n=145)	χ^2 test	P value
	N (%)	N (%)		
Age (years)				
<25	14 (63.6)	8 (36.4)		
25-34	115 (55.0)	94 (45.0)	1.04	0.593
>34	46 (51.7)	43 (48.3)		
Gender				
Female	158 (54.7)	131 (45.3)	0.01	0.986
Male	17 (54.8)	14 (45.2)		
Educational level				
Primary	3 (50.0)	3 (50.0)		
Secondary	68 (55.3)	55 (44.7)	0.08	0.963#
Tertiary	104 (54.5)	87 (45.5)		
Occupation				
Civil/public servant	66 (54.5)	55 (45.5)		
Trading	50 (51.0)	48 (49.0)		
Skilled worker	26 (57.8)	19 (42.2)	1.93	0.749
Unemployed/student/corper	16 (53.3)	14 (46.7)		
Health worker	17 (65.4)	9 (34.6)		
Sex of child				
Female	87 (55.4)	70 (44.6)	0.07	0.798
Male	88 (54.0)	75 (46.0)		

Table 5 shows factors that influencing parent's/caregivers' awareness and knowledge of immunization messages. There were statistically significant association of overall awareness and knowledge with age $p=0.043$, gender $p=0.006$, educational level <0.001 and occupation $p=0.001$. However, it was not significant for sex of child $p=0.943$.

Table 6 shows factors that influencing parent's/caregivers' perception on immunization messages. There were no statistically significant association of overall perception with age $p=0.593$, gender $p=0.986$, educational level $p=0.963$, occupation $p=0.749$ and sex of child $p=0.798$.

Table 1: Incidence of different types of asterion.

Gender	Type I	Type II
	N (%)	N (%)
Male (n=54)	14 (25.9)	40 (74.1)
Female (n=46)	13 (28.2)	33 (71.7)

DISCUSSION

Effective communication strategies are key to immunization uptake as it makes more people aware of the benefits of Immunisation; correcting false beliefs, rumours, or concerns that prevent people from getting immunised; and informing people where and when to get immunised, thereby potentially increasing vaccination rates.³²⁻³⁵

Findings from current study revealed that more than half of parents are aware of the key immunization messages which was contrary to a previous study conducted in Anambra State, where the author stated that knowledge and awareness on childhood vaccination have been very poor.⁷ However, the findings was supported by a study on attitudes to vaccination a critical review which demonstrated that the attitude of parents to vaccination was not majorly due to the lack of awareness on childhood vaccination nor was it about how parents view the messages communicated to them but rather was about the distrust of parents towards the source of immunization information that delivers these messages to them.¹⁵ These contradictions could be explained since over time, more awareness might have been created to improve dissemination of immunization messages.

In this study parents/caregivers opined that both parents should be targeted when immunization messages are disseminated. This can partly be due to need for both to complement their understanding of the messages for good of the children. Implication of this fact is that non-compliance of parents to vaccination of children will be minimized. Improving communication on vaccination can be a key factor in improving vaccination outcomes.^{36,37} and achieving the broader goal of knowledgeable parents and communities which are important contributors to

facilitating informed health choices and improving child health in many settings.^{34,38,39}

Current study also showed that religious groups and Health workers are the most common source of information on immunization. As expected, information delivered from a health care provider is effective, because they are believed to be knowledgeable about vaccines compared with those who received the information from other sources.⁴⁰ This finding is consistent with a lot of studies, where health workers are seen as major and credible source of information because they have both an important opportunity and a professional obligation to educate parents and correct misconceptions.^{8,13,15,41} Also qualitative evidence synthesis, along with studies conducted in Nigeria and Bangladesh, reported that health workers were the most important source of information for parents and parents had specific expectations of their interactions with them.⁴²⁻⁴⁴ The high use of religious groups is because commonly the churches are used by government and health institution as a mode of reaching members of the communities as almost all persons or relatives attend services in these churches.

The role of religious groups as channel though good and welcomed but should be used with caution as they lack expertise in health matters which if not well managed can be counter-productive. The study result regarding awareness to key immunization messages presents the need for individuals who have the skills to impart knowledge or counsel parents should be employed or used to deliver immunization messages. This will help ensure that quality information is passed and this information is understood by parents. However, previous study cited insufficient implementation of communication interventions; insufficient involvement of stakeholders such as opinion leaders, traditional leaders, and religious authorities; and a lack of training of focal communication persons.⁴⁵ In order to plan and deliver effective communication about childhood vaccination, we need to understand stakeholders' perceptions of communication and explore their preferences for delivering and receiving information.

On perceptions of parents/caregivers towards immunization messages this present study revealed that majority of the parents/caregivers understands every immunization message communicated to them and all the messages given are always clear and related to immunization. This finding is in contrary to an observation by similar study which revealed that immunization messages are over flooded with irrelevant information.²² However, it showed that immunization messages can be properly communicated if passed through the right sources and delivery channels.²² Furthermore, current study showed that majority of parents didn't see language barrier as an obstacle in receiving and understanding immunization messages

This study demonstrated that characteristics of parents/guardians that influenced awareness and knowledge on immunization messages failed to reflect on perception on immunization messages. There were significant association of overall awareness and knowledge with socio-demographic characteristics of parents/caregivers. However, these were not significant perception on immunization messages. Previous studies identified socio-demographic factors as a major determinant of the perception of parents on immunization depending on the location of the parents as stipulated in a study.^{40,46} The difference in findings from current study can be due to differences in location of the parent as well as mode of administration of the study.

While current was community based which has a wider reach and supposedly answered by diverse group of persons, previous studies were at institution with respondents almost homogeneous. This was also revealed on perceptions and experiences of childhood vaccination communication strategies among caregivers and health workers in Nigeria, a qualitative study.¹³ The policy makers in the state may use these findings to improve dissemination of immunization messages in order to ensure parents/caregivers make informed decisions about vaccination their children.

A limitation of the study is that there may be recall bias which may affect the objectivity of findings. However, researchers reduced this by asking the questions in varied ways and using some events to guide their responses. The strength of the study was that the study was conducted after the pre-eradication era of polio in Nigeria, Measles campaign and maternal and child health week exercise when the attention of governments and international agencies was focused primarily on polio eradication, prevention and protection of children from measles and enhancing maternal and child health. This may have influenced the responses of parents towards their perception on immunization messages and awareness to key immunization messages.

CONCLUSION

This study revealed that the most preferred source of information or delivery channel on immunization religious groups and health workers. It also revealed that immunization messages are clearly understood by parents. There are need for increased awareness on immunization messages. improvements in the clarity of information provided; as well as, using diverse approaches that addresses public concerns. Religious group needs to be trained and educated on interpersonal communication techniques and skills in order to tackle vaccine hesitancy and improve coverage.

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