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HEALTH CARE PRACTICES OF CHILDREN (0-15YEARS) IN A RURAL COMMUNITY IN KAURA LOCAL GOVERNMENT, KADUNA STATE, NIGERIA

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ABSTRACT

Background: Healthcare refers to efforts made to maintain, restore, or promote someone's physical, mental, or emotional well-being, especially when performed by trained and licensed professionals. Health care practices are intended to protect, promote or maintain health and well-being, and at the same time help to prevent disease, disability or death in a young person between infancy and puberty. Inadequate healthcare practices can negatively affect the quality of life of the children and the community at large. **Aim:** This study aimed to assess the healthcare practices of children between 0-15 years in Fada and Agban settlement in Kagoro town of Kaura Local government Area of southern part of Kaduna State. **Methodology:** A cross-sectional descriptive study design was used. Questionnaires were administered to 1035 households with Children under the age of 15. The households were selected by simple random sampling in Fada and Agban settlement In Kagoro town of Kaura Local government Area of southern part of Kaduna State. Data was entered into and analyzed using Statistical Package for Social Sciences (SPSS) and presented in tables. **Result:** Majority of the respondents, about 98.6% took their immunization, 95.3% used the health care facility, 84% of households meet the health expenses via out of pocket (personal payment), 85.5% of parents get their information from the health facility and 61.1% parents go to health care workers when their children are sick. **Conclusion:** Results from this study showed that there were good health care practices of children between 0-15 years in the rural community. Therefore, programs that educate Children on these matters should be integrated into their curriculum. Community awareness, sensitization and the introduction of Health insurance should be encouraged to sustain these gains.

KEYWORDS: Health expenses, healthcare provider, immunization uptake, health practice, health information source, southern Kaduna.

BACKGROUND

Childhood is a phase of life between birth and before 18 years of age. It's a unique stage of human development and an important time for laying foundations for good health. It's a phase when children establish patterns of health behavior and practice related to diet, physical activity, and social bonding. Children need opportunities to develop life skills, health services that are appropriate and effective; and safe and supportive environment to grow and develop in good health.[1] Childhood can be divided into neonates, under-5, school age (5-9years), early adolescence (10-13years) and late adolescence (14-18years).

These stages of childhood have various goals according to policy thrusts in the national child health policy in Nigeria. For neonates, the goal is to reduce stillbirth and neonatal mortality rate and ensure optimal survival, health, growth and development for all newborns. For under-5s, the goal is to ensure that children aged 1-59 months survive, thrive and transform to reach their full potential. For school-age children, the goal is to promote the survival, health, growth, and development of school-age children and foster their learning and independence. For adolescents, the goal is to ensure that the Nigerian health system is adequately - responsive to deliver quality health services to adolescents- and youths thereby reducing morbidity and mortality among them.[2]

According to the National Programme on Immunization, routine immunization of children in Nigeria is carried out using the following vaccines.[3]

- BCG (Bacilli Calmette Guerin)- at birth or as soon as possible after birth.
- OPV (Oral Polio Vaccine) –at birth, and at 6, 10, and 14 weeks of age .
- DPT (Diphtheria, Pertussis, Tetanus)- at 6, 10, and 14 weeks of age.
- Hepatitis B- at birth, 6 and 14 weeks.
- Measles- at 9 months of age.
- Yellow Fever- at 9 months of age.
- Vitamin A- at 6 months and 15 months of age.

Healthcare providers are organizations or individuals that deliver medical services. They can range from primary care physicians and nurses to hospitals, clinics, and specialized health care facilities. They are often regulated by government agencies to ensure quality and safety standards in healthcare delivery.

Healthcare providers may also collaborate with insurance companies for payment and work collectively to form comprehensive healthcare systems within a community. Healthcare financing entails ways whereby healthcare expenses are met. This could be through methods such as personal payments or health insurance schemes. There are different health insurances schemes made available to the public and some of these include National Health Insurance Agency (NHIA – at the federal level), Kaduna state Contributory Health Management Scheme (KADCHMA- at state level), ECWA health Insurance Scheme (EHIS- at private sector level) among others. The National Health insurance Agency in Nigeria has devised comprehensive programs, spanning formal and informal sectors, targeting various segments like public and private employees, students, vulnerable groups, and pregnant women, aiming to ensure widespread access to quality healthcare services.[4]

PROBLEM STATEMENT

Childhood is a critical period of development that significantly influences an individual's health and well-being. Children constitute a large proportion of any population. According to UNICEF, about 2.2 billion or 27% of world's population of 8.06 billion are children. 46% of Nigeria's population is under the age of 15.[1]

Their health profile is influenced by: health and safety, environment, education, family dynamics, social and emotional identity and self-esteem. Child healthcare practices face multifaceted challenges globally encompassing inadequate access to essential services, limited awareness of proper nutrition and prevalent gap in immunization coverage. Socioeconomic disparities contribute to disparities in healthcare utilization and outcomes. Insufficient parental education and misconceptions about preventive measures hinder optimum child health.

This study seeks to identify the key child healthcare practices that impact the health and well-being of children such as, access to healthcare, immunization practices and methods of healthcare financing in kagoro community and to establish the relationships with various health outcomes.

JUSTIFICATION

This study provides details in regards to healthcare practices among children in kagoro community. Ensuring optimal child healthcare practice is vital for the overall being of the society and investing in child healthcare is a strategic measure with long term benefits as healthy children are more likely to develop into productive adults.

Addressing challenges such as inadequate access, awareness and preventive measures, societies can reduce the burden of disease, enhance productivity and build a healthier future generation. Although there are a lot of works done in urban cities, there is however limited research on the health practices and well-being of children in kagoro community.

Like every setting in Nigeria, kagoro community has a thriving children population and meeting the needs of these children and achieving optimum health and well-being, there is the need to access their needs holistically, especially their health needs. This study seeks to achieve this with the outcome serving as compass for their sustainable health and development.[1]

RESEARCH QUESTIONS

1. What are the immunization practices of children (0-15 years) in kagoro community?
2. What are the major health care providers of children (0-15 years) in kagoro community?
3. What is the main method of healthcare financing for children (0-15 years) in kagoro community?
4. What are the sources of healthcare information for children (0-15 years) in kagoro community?

OBJECTIVES

General Objectives

- To access the healthcare practices of children(0-15 years) in kagoro community

Specific Objectives

1. To determine the immunization practices of children(0-15 years) in kagoro community
2. To access the major healthcare providers of children(0-15 years) in kagoro community
3. To identify the main method of healthcare financing for children(0-15 years) in kagoro community
4. To identify the sources of healthcare information for children (0-15 years) in kagoro community.

LITERATURE REVIEW

According to data from older studies, Nigeria is a `country of the young' with almost half the entire 180 million strong population, 46 percent, currently under the age of 15. The current total for children under the age of 5 stands at nearly 31 million, while each year at least 7 million babies are born. While a little over one in three of Nigeria's whole population lives below the poverty line, among children this proportion surges to 75 percent.[5]

To assess can be defined as determining the importance, size, or value of.[6]

The World Health Organization defines health as a state of complete mental, physical, and social well-being, not merely the absence of disease.[7]

Care can be defined as feeling interest or concern.[6]

Healthcare can be defined as efforts made to maintain, restore, or promote someone's physical, mental, or emotional well-being especially when performed by trained and licensed professionals.

Practices can be defined as the usual way of doing something.[6]

A child can be defined as a young person, especially between infancy and puberty.[6]

Community can be defined as a group of people with a common characteristic or interest living together within a larger society.[6]

Healthcare practices assessed in this study, include immunization coverage, assessment of major healthcare providers, identification of methods of healthcare financing, and identification of sources of child healthcare information.

Situation analysis

The global under-five mortality rate declined from 77 per 1000 live births in 2000 to 39 per 1000 live births in 2017, or a 47% reduction during this 17-year period. Despite this progress, 5.4 million children under five years of age died in 2017 with half of these deaths in Sub-Saharan Africa. More than half of the under-5 child deaths are due to illness that are preventable and treatable through simple, affordable interventions like vaccines and adequate nutrition. The nutrition-related factors contribute to about 45% of deaths in children under-5 years of age.[8]

Global

The World Bank (2001) reports that majority of Nigerians earns below US $1 a day and this shows high level of poverty in the country. This extreme poverty serves as a limiting factor to access quality health care especially among the vulnerable group (Children) (World Bank, 1999, UNICEF, 1999).[9]

Less than half of the population has access to safe water including 40% of the population in rural areas and only 41% have access to adequate sanitation with 32% in rural areas.[10]

Nigeria

The uptake of routine immunization remains poor and full immunization coverage has failed to gain traction as only one in four children are fully vaccinated. The situation for rural children causes the greatest concern – only 16 percent are fully immunized, compared to 40 percent of children in urban areas. Measles vaccination coverage has now fallen below 50 percent.[11]

Standards / Review of Policy

Immunization practices of children 15 & below in kagoro community

A cross-sectional study comprising 269 children was carried out in India in 2016, to determine the immunization coverage and its determinants among under-five children. Data collection was done via a pre-designed semi-structured questionnaire and results showed Percentage of children fully immunized was found to be 83%, partially immunized was 16%, and unimmunized was 1%. 24.3% of children were less than 12 months of age, 22.9% were 12-23 months and 52.6% of children were 24-60 months. 65.37% of mothers had their child's immunization card. A major reason for the failure of immunization was found to be a lack of awareness of the schedule i.e. 41% of children and negligence of parents and grandparents in 32.5%.[12]

A systematic search of journals was conducted on childhood immunization in Nigeria in 2017 using a total of 26,960 children and The estimated proportion of fully immunized children in Nigeria was 34.4% (95% confidence interval [CI]: 27.0–41.9), with South-south zone having the highest at 51.5% (95% CI: 20.5–82.6), and North-west the lowest at 9.5% (95% CI: 4.6–14.4). Mother's social engagements (OR = 4.0, 95% CI: 1.9–8.1) and vaccine unavailability (OR = 3.9, 95% CI: 1.2–12.3) were mostly reported for low coverage. Other leading determinants were vaccine safety concerns (OR = 3.0, 95% CI: 0.9–9.4), mother's low education (OR = 2.5, 95% CI: 1.8–3.6) and poor information (OR = 2.0, 95% CI: 0.8–4.7). The study suggests a low overall coverage of childhood immunization across Nigeria. However, due to the paucity of data in the Northern states, the representativeness and overall quality of evidence provided is uncertain.[13]

Major healthcare providers for children 15 and below in kagoro community

A community-based descriptive study was done in a rural coastal area of Villupuram district in the Tamil Nadu state of India. Using a simple random sampling method, 559 participants were selected. A pre-tested structured questionnaire was used to collect the data. The results showed that the majority (56.4%) visited public healthcare facilities for various illnesses. Almost one-third of the study participants visited private health facilities and another 11.6 percent visited other health facilities including pharmacies.[14]

A cross-sectional study involving 2999 respondents was carried out in Abia State, Nigeria on the Urban–Rural Differences in Health-Care-Seeking Patterns of Residents and their implication in the control of non-communicable diseases. Data were collected using the modified World Health Organization's STEPS questionnaire. The results showed that In both urban and rural areas, patent medicine vendors (73.0%) were the most common sources of primary care following the onset of illness, while only 20.0% of the participants used formal care. Significant predictors of differences in care-seeking practices between residents in urban and rural communities were educational status, income, occupation, and body mass index. This was a cross-sectional study, so causal inferences could not be ascertained. In addition, the study did not examine community-related and health facility-related factors influencing care-seeking behavior among the respondents.[15]

Main source of healthcare financing for children 15 and below in kagoro community.

A cross-sectional study was carried out in Niger Delta, Nigeria spanning over 5 years from 2005 to 2009 on the sources of healthcare financing among surgical patients. Data was collected by a questionnaire administered to the 3712 participants. The results showed that sources of finance for the hospital bill were multiple but mainly personal savings

(71.18%). Few (3.06%) knew about the National Health Insurance Scheme, but when informed about it 84.28% were willing to enroll.[16]

A descriptive cross-sectional survey of the patients on admission at the Ahmadu Bello University Teaching Hospital, Zaria, Nigeria was carried out in 2014 to determine the sources of healthcare financing by these patients. A multistage sampling technique was used to select the 100 clients for the study. Patients' relatives paid for the medical bill in most of the cases (48%), 37% paid out of pocket, and 11% used the National Health Insurance Scheme (NHIS) respectively. The medical expenses affected family feeding (29.3%), while 16% of the patients could not get full medical services due to lack of funds, 8.8% could not pay the school fees of their children and 12.2% were indebted. The majority of the clients (65%) were not aware of the NHIS. Most (80%) of the patients would want to use the health insurance scheme (NHIS) if they have access to the opportunity.[17]

Sources of health information for children 15 and below in Kagoro community

A cross-sectional study was conducted in Saudi Arabia on sources of Health Information and Their Impacts on Medical Knowledge Perception. The study population included both men and women who were aged 16 years or more and visited primary care clinics at King Khalid University Hospital. Four hundred and thirteen participants were sampled using the simple random method, and a self-administered questionnaire was used to collect data. Doctors were chosen as the first source of information by 87.6% (283/323) of the participants, and they were completely trusted by most of the population (326/411, 79.3%). The second most commonly used source was pharmacists (112/194, 57.7%), and they were partially trusted by 41.4% (159/384) of the participants. Internet searches, social media, and traditional medicine were not prioritized by most of the participants as the first or second source of health information. The majority of the participants did not trust information obtained from social media, and WhatsApp was the most untrusted source. Almost half of the respondents (197/413, 47.7%) acknowledged that various sources of information can often help them understand their health problems. However, the majority disagreed on substituting a doctor's prescription with information obtained from the internet or a friend or relative.[18]

A study carried out at Kaduna State University, Kaduna Nigeria in 2019 with 400 respondents to determine the health information-seeking behavior of students in Nigeria showed that the most important source of health information is parents (91.9%) compared to journals (35.1%) as the least important source of health information. Family doctors ranked 91.4% as the second most important source of health information.[19]

METHODOLOGY

STUDY AREA

Kaduna State is one of the thirty six states in Nigeria within the north western geo political zone of the country. It was created in 1967 as north central state which included modern Katsina state but achieved its current borders in 1987. Kaduna state is the fourth largest and third most populous state in the country with a total land area of 46053km² and a population of 6,113,503[21] respectively. It had a GDP of $27.88billion[20] and a per Capita of $2, 905 in the year 2021. The capital of the state is Kaduna.

The study was carried out in Fada and Agban community of Kagoro chiefdom, Kaura Local government area of kaduna state which is one of the 23 local government areas in the state. Kagoro is a mid-size town in the region of Kaduna in Nigeria with a population of approximately 77,008 people and is one of the largest places in Nigeria. Its geographical

coordinates are 9° 36' 0" North, 8° 23' 0" East. Kaduna's capital Kaduna (Kaduna) is approximately 146 km / 91 mi away from Kagoro. It contains six wards namely Mallagum, Kpak, Fada, Agban, and Kadarko For fada and Agban consisting of six settlements which include Uzauchio, Uttauchio, Tuyit 1, tuyit 2, Agban, Mararaba, have 5 health facilities of which 4 are primary health care centers and 1 is a specialist hospital and 3 are government owned and 2 are private owned. The health workers include few Doctors, Nurses, Pharmacist, Lab technician and majorly Community health officers.

Sociocultural and economic information

The community's residents are a homogeneous group, although, other ethnic groups from Nigeria have settled among them. They are part of the larger Atyap Eth no-Linguistic Cluster, with Aegworok being its dominant ethnic group and other ethnic groups like Bajju, Hausa, Fulani, Yoruba, Igbo, and a variety of others scattered throughout. There, Christianity is the most common religion practiced by the locals, followed by Islam and a small number of African traditional religions.

The majority of the population work as farmers, producing a range of crops such as guinea corn, millet, maize, yams, cocoa yams, potatoes, and cassava. Fruits like bananas, mangoes, and oranges are in abundant supply. It is home to Kagoro hills, a tourist favorite and a Water Board intake that supplies clean water for the community's consumption. The renowned ECWA School of Seminary and ECWA College of Health Technology are located there, along with primary and secondary levels educational institutions. Among its health institutions are the ECWA Comprehensive Health Centre and various PHC facilities and private hospitals and clinics.

Study Population

The Study population consists of children population of age from 0 to 15 in Agban and Fada community, Kagoro chiefdom, Kaura LGA, Kaduna state.

Chiefdom	Ward	Settlement	Household
Kagoro	Fada	Uzauchio Utah Tuyit 1 Tuyit 2	734
	Agban	Uzah Agban Mararaba	301
Total			1035

Inclusion Criteria: Those eligible for the study are the children of Kagoro chiefdom from the age of 0 to 15 years and are currently resident there in and physically present during data collection will be included.

Exclusion Criteria: Anyone above the age of 15 years, those children between age 0 to 15 years who are currently residents but not physically present.

Study Design: This will be a household level community based descriptive cross-sectional study.

Study Duration: This study was conducted over a 3months. Data collection was carried out over 2 months, analysis and final write up was done over 1 month.

Scope of Study: This study was focused on care givers health practices given to children between the age of 0 to 15.

Sample Size Determination

The Minimum sample size for the study was calculated using the Cochrane formula, with a minimum sample size of 1035.

Sample Technique

Stage 1: Two wards were selected from a possible 6 wards in Kagoro Community. (Fada and Agban) using simple random sampling with the list of wards as sample frame.

Stage 2: A total of 7 settlements were selected from the 2 wards using simple random sampling method (balloting). Four (4) from Fada and Three (3) from Agban.

Fada: Uzauchio, Utah, Tuyit 1, Tuyit 2
Agban: Uzah, Agban, Mararaba
Total settlements will be six (7)

Stage 3: Number of households were enumerated in each settlement and selected using systematic random sampling. After selection of the first house household selection was by systematic random sampling of 1 in 5 houses will be subsequently enumerated.

The interviewer administered questionnaires was given based on the projected household number enumerated.

Data Management

Data Collection Technique

The method for data collection is mainly data collection. Interviewer-administered structured household-level questionnaire was used. The questionnaire contains sections, however, health practices by care givers given to children between the age of 0 to 15 in the community was administered for this study. Data collection was carried out by medical students who were trained using an interviewer administered questionnaire prior to the real exercise. Each questionnaire was checked for completeness before leaving the field on each day of data collection.

Data Analysis

Data was collected cleaned and analyzed using statistical computer software, statistical package for social sciences (SSPS) version 27. Frequency tables and charts were generated to explain the study findings.

Ethical Consideration

The exercise did not require invasion of the human body and thus no untoward physical harm to the participants. Ethical clearance was obtained from Bingham University Teaching Hospital Ethical Committee (BHUTHREC) for the study and permission was gotten from the Kaura LGA office and chief of Kagoro/traditional counsel. Household level permission from respective household heads.

There was “Participant’s Consent and Information on the first page of the survey questionnaire that outlines the information on the research and solicitation of the participant’s consent. Each participant was required to voluntarily affirm his/her consent and willingness to participate in the study; with the assurance of confidentiality and the right to opt out from the process without any repercussions.

Upon agreeing to participate in the study, the questionnaire was administered and upon completion a number was assigned to each household for ease of cross-checking and if additional information was needed. Collected questionnaire and collated data was domiciled in the protective custody of the researcher to avoid needless spread of participants' information with guided access only to research team. Database was kept strictly with the researching team and was not being made available or known to anyone outside the team. However, if requested, participants will be availed BHUTHREC telephone number should any request of such be made thereof in the course of questionnaire administration.

Limitations

There was some form of Language barrier, but an experience interpreter was used to mitigate this. Some respondents being in school prevented smooth data collection and some some eligible participants were not included as there were absent during survey (due to the boarding house)

RESULTS

This section shows the results from 1035 households concerning the healthcare practices for children 15 years and below in Kagoro community.

TABLE 1: Different immunizations given to the children of Kagoro Community.

Vaccine		Frequency	Percentage (%)
BCG	Yes	1021	98.6
	No	8	0.8
OPV0	Yes	1016	98.2
	No	14	1.4
DPT1	Yes	1006	97.2
	No	24	2.3
OPV1	Yes	1003	96.9
	No	27	2.6
DPT2	Yes	996	96.2
	No	32	3.1
OPV2	Yes	996	96.2
	No	32	3.1
DPT3	Yes	994	96
	No	35	3.4
OPV3	Yes	993	95.9
	No	36	3.5
Measles	Yes	979	94.6
	No	48	4.6

A) Different immunizations given to the children of Kagoro Community.

The table above highlights the vaccines available on the immunization schedule of the country. It shows the amount of household that partook in the immunization exercise.

98.6% of the households took the BCG vaccine whilst 0.8% did not. 98.2% of respondents took the OPV0 vaccine while 1.4% did not.

97.2% of the respondents took the DPT1 vaccine while 2.3% did not. 96.9% of respondents took the OPV1 vaccine while 2.6% did not.

96.2% of respondents took the DPT2 vaccine while 3.1% did not. 96.2% of respondents took the OPV2 vaccine while 3.1% did not. 96% of respondents took the DPT3 vaccine while 4% did not. 95.9% of respondents took the OPV3 vaccine while 3.5% did not. 94.6% of respondents took the measles vaccine while 4.6% did not. Generally, most of the children in the respondent household, have taken the vaccines listed above.

Table 2: Means through which healthcare gets to the children of Kagoro Community.

Healthcare provider	Response	Frequency	Percentage (%)
Health Facility (General, PHC/Private)	YES	986	95.3
	NO	47	4.5
Pharmacy/Chemist	YES	479	46.3
	NO	554	53.5
Traditional Healer	YES	131	12.7
	NO	902	87.1
Prayer House	YES	70	6.8
	NO	963	93.0

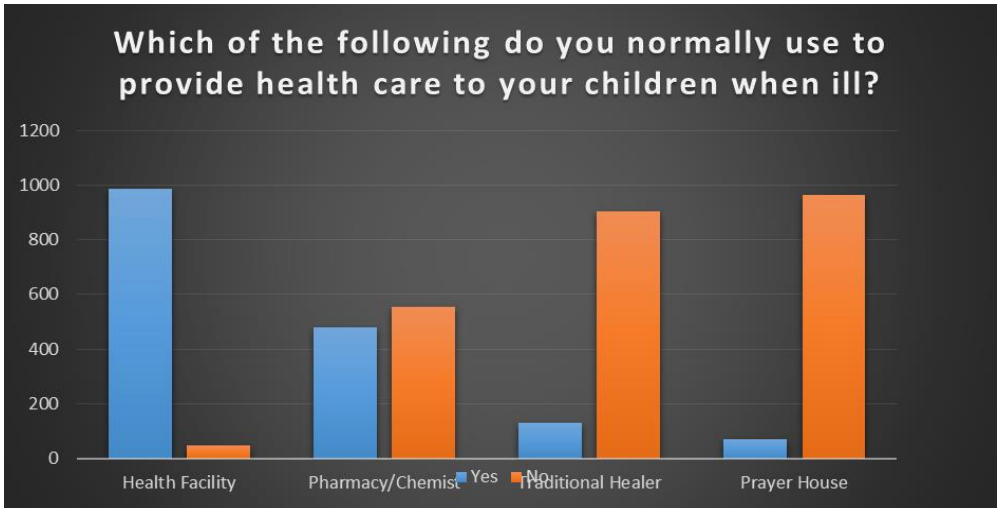

Figure 1: Means through which healthcare gets to the children of Kagoro Community.

B) Means through which healthcare gets to the children of Kagoro Community.

From the table 2 and Figure 1 (bar chart above), showing the different responses above. 95.3% of respondents use health facility to provide health care while 4.5% do not.

46.3% of respondents use pharmacy/chemists to provide healthcare while 53.5% do not.

12.7% of respondents use traditional healers to provide healthcare to their children while 87.1% do not. 6.8% of respondents use prayer houses while 93% do not.

Essentially, most of the respondents utilize health facilities the most and use prayer houses the least.

Table 3: Methods through which parents meet the health expenses of the children and First-in-line to which parents go to for help concerning their child's health.

Means of health expenses	Frequency	Percentage (%)
Personal Payment	869	84.0
Health Insurance	164	15.8
Total	1035	100.0

First-in-line to which parents go to for help concerning their child's health.		
Family Member	271	26.2
Health Care Worker	632	61.1
Pharmacy/Chemist Operator	124	12.0
Traditional Medicine Person	2	.2
Religious Leader (Pastor/ Imam)	4	.4
Total	1035	100.0

C) Methods through which parents meet the health expenses of the children and First-in-line to which parents go to for help concerning their child's health.

Table 3 and Figure 2 above show the frequency distribution for how the parents meet the health expenses of their children. 869 (84%) households meet the health expenses via personal payment while 164 (15.8%) have health insurance.

First-in-line to which parents go to for help concerning their child's health

The table 3.0 and Figure 3 (chart above) show the frequency distribution for who the parents go to seek help from when their children are sick. 61.1% of parents go to healthcare workers, 25.3% go to family members, 12% go to the pharmacy/chemist operator, 0.4% go to the religious leaders, and 0.2% go to the traditional medicine person.

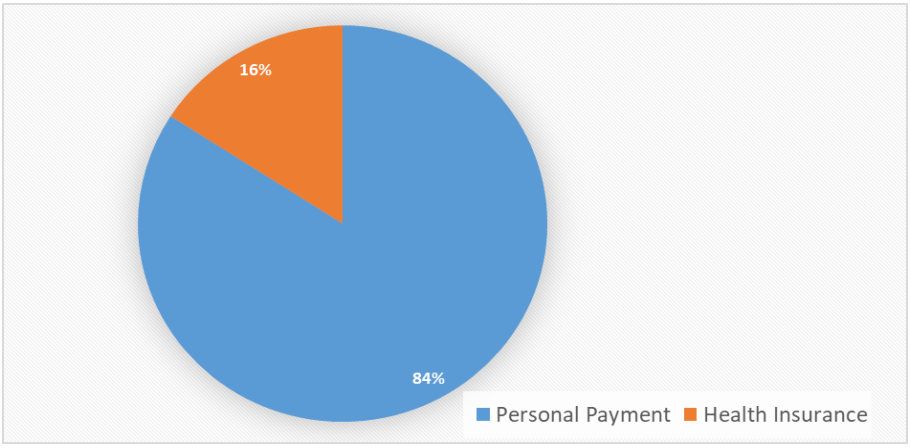

Figure 2: Methods through which parents meet the health expenses of the children of Kagoro Community.

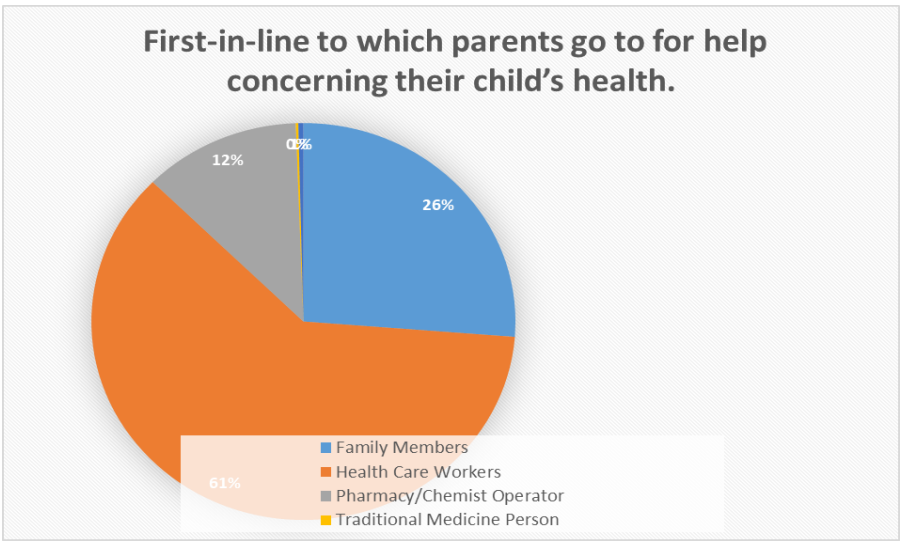

Figure 3: First-in-line to which parents go to for help concerning their child's health.

QUESTION 4: Which of the following sources do you get child health information from?

Table 4: Sources do you get child health information.

Sources of child health information	Response	Frequency	Percentage
Health Facility	YES	885	85.5
	NO	148	14.3
TV	YES	434	41.9
	NO	598	57.8
Radio	YES	242	23.4
	NO	790	76.3
Newspaper/flyer	YES	137	13.2
	NO	895	86.5
Religious media	YES	708	68.4
	NO	324	31.3
Association/Union	YES	270	26.1
	NO	760	73.4
Friends	YES	588	56.8
	NO	445	43
Family members	YES	674	65.1
	NO	358	34.6

D) Means of health expenses and sources of child health information

Table 4 above shows the results for the sources via which the parents get information concerning child health. 885 (85.5%) of parents get their information from health facilities. 434 (41.9%) of parents get their information from the TV, 242 (23.4%) get theirs from radio, 137 (13.2%) get theirs from newspapers, 708 (68.4%) get theirs from religious media, 270 (26.1%) get theirs from association/unions, 588 (56.8%) get theirs from friends, and 674 (65.1%) get their information from family members. Most parents get their information from health facilities and least from newspapers.

DISCUSSION

SOCIO DEMOGRAPHIC

Health practice can be defined as practices aimed to protect, promote or maintain health and well-being and at the same time helping to prevent diseases, disabilities or deaths.[22]

The Socio demographic picture of the study shows that 1035 households with children between 0-15 years were recruited in this survey. Recruitment was from all 7 settlements within the Kagoro Community: Agba, Tuyit 1, Tuyit 2, Mararaba, Fada, Utachio, and Uzah.

The mean age of fathers in the Kagoro community is 41 and on the other hand, the mean age for mothers is 35.
The population were majorly Christians similar to a sample population in similar rural areas.[23] However, majority of the parents in this population were not literate, mean level of education attained by two thirds (2/3) of the fathers was secondary school while that of the mothers was about half of the population, and The average income of families in this community is 34,000 Naira per month. And thus are largely of low socioeconomic class

Furthermore, socioeconomic class and maternal education have been shown to be significant determinants in health practices of parents as demonstrated in a case control study on immunization practice in the community.[24]

IMMUNIZATION PRACTICES OF CHILDREN

This study shows the amount of household that participated in the immunization exercise. 98.6% of the households took the BCG vaccine whilst 0.8% did not. Of the entire population, this study did not ascertain delays and determinants in BCG immunization as it not within the scope like other studies.[25]

However, the level of education of the mothers recruited into this survey was low which is usual for a rural community, but it did not seem to negatively impact the immunization rates. Other factors like maternal knowledge on immunization was not assessed to understand if they had other prior information on immunization as seen in other studies with similar outcomes where low maternal level of education did not seem to negatively impact immunization rate.

As per the NPI Schedule, the rates for BCG, OPV0 and DPT1 taken immediately after birth or within the first week were the highest with rates of 98.6%, 98.2% and 97.2%. there seemed to be a slight progressive decrease in the rates for the succeeding vaccines – DPT 1(97.1%), OPV1(96.9%),DPT2 (96.2%), OPV2(96.2%), DPT3(96%), OPV3(95.9%), which could suggest decrease in return of mothers to immunize their children, this is most dramatically indicated by immunization rate of measles(94.6%) being the lowest. This is in keeping with a study done to ascertain determinant of immunization, and implied that because of the long interval between the DTP and measles, a number of children are not returned for measles vaccine and this makes the coverage rate for this antigen to be lower than others in keeping with the reported pattern.[26]

The vaccination coverage rates in this survey (BCG 98.6%, DPT1 97.1%, OPV1 96.9%, DPT3 /OPV3 96%, Measles 94.6%) are higher than the WHO-UNICEF estimates for Nigeria (BCG 74%, DPT1 70%, OPV1 62%, OPV3/DPT3 62%, Measles 60%).[27] This may be as a result of a high level of awareness of immunization and vaccination among members of the community. The high vaccination coverage rates in this community will lead to a decline in the incidence of vaccine preventable diseases in the community and improved health and development of children in the community.

HEALTH CARE PROVIDERS

The study shows that majority of the population (95.3%) go to hospitals as their first point of contact when ill. The community also utilizes local pharmacy stores (46.3%). Unlike other traditional rural communities, traditional healers are not patronized, with 12.7%. This results of this study are in contrast with that of a study carried out in Abia state which showed that In both urban and rural areas, patent medicine vendors (73.0%) were the most common sources of primary care following the onset of illness, while only 20.0% of the participants used formal care.[15]This differences in health seeking behaviour may be due to the availability of a robust Primary Health Care Centre with affordable services in the Kagoro community.The high rate of utilization of the hospital as the first point of care will lead to improved health outcomes and early diagnosis and treatment of diseases.

HEALTH CARE FINANCING

From the study, of the 1035 households surveyed, 84% (869) paid for their health bills from personal funds, and only 15.8% (164) were on an insurance scheme. The percentage is in keeping with the national picture that indicates only 17% of Nigeria are enrolled in health insurance schemes.

This is greatly significant and represents the gap in achieving Universal Health coverage in Nigeria, as out-of-pocket (OOP) payments, especially by rural communities, do not aid the population in affording and accessing health care.

Globally, access to health care varies according to income distribution. Thus, the developed countries tend to have a better access to health care than the developing countries[23] (Peters et al). As indicated by the socioeconomic status of the population, the average population in this study earns less than the minimum wage.

Out-of-pocket payment have been linked poorer health outcomes and higher rates of morbidity and mortality (Riman HB, Akpan ES. Healthcare financing and health outcomes in Nigeria: A state level study using multivariate analysis.)

While this study did not delve deeper to ascertain the willingness of household heads to pay for a contributory health insurance scheme, a study conducted in 2019, in Kaduna State in 6 local government in rural and urban areas, ascertained that 82% of the population were willing to pay a mean amount of N513 ± N47 ($1.68) per month for health insurance premiums. This may however not be an accurate representation of present-day realities due to economic inflation and rise in cost of living.[28]

SOURCE OF HEALTH INFORMATION

The study shows that the population receives health information from majorly from health facility (86%), family members (65%), friends (57%), religious institutions (68%) unions. Their low socioeconomic status and lack of basic amenities often deprives them from health information through other means like radio (23.4%), newspaper (13.2%). The findings are similar to that of a study carried out at Kaduna Nigeria in 2019 that showed that the most important source of health information is parents (91.9%) compared to journals (35.1%) as the least important source of health information. Family doctors ranked 91.4% as the second most important source of health information.[19]

Moreover, the health information sought from different sources and trusted by the public could tremendously influence the quality of health care rendered, as it could affect their judgment of a physician's medical opinion and, in turn, affect their health decision-making.[18]The internet is not a consequential source of health information as widely seen in other studies.[29, 30]

CONCLUSION

The immunization practices of children 15 years and below in kagoro community was determined and it shows that 98.6% of the households took the BCG vaccine whilst 0.8% did not.98.2% of the respondents took the OPV0 vaccine while 1.4% did not.97.2% of the respondents took the DPT1 vaccine while2.3% did not.96.9% of the respondent took the OPV1 vaccine while 2.6% did not.96.2% of respondent took the DPT2 vaccine while 3.1% did not.96.2% of the respondents took the OPV2 vaccine while 3.1% did not.96% of the respondent took the DPT3 vaccine while 4% did not.95.9% of the respondents took OPV3 vaccine while3.5% did not.94.6% of the respondents took the measles vaccine while 4.6% did not.Generally most of the children in the respondent household, have taken the vaccines listed above.

The major health care providers they assessed shows that 95.3% respondent use health facility to provide health care whilst 4.5% do not.46.3% of respondents use pharmacy/chemists to provide healthcare while 53.5% do not.12.7% of respondents use traditional healers to provide healthcare to their children while 87.1% do not.6.8%of respondents use

the prayer houses while 93% do not. Essentially, most of the respondents utilize health facilities the most and use the prayer houses the least.

The main method of healthcare financing was identified which shows that 869(84%) of the households meet the health expenses via personal payment while 164(15.8%) have health insurance.

The sources of healthcare information was also identified and its show that 885(85.5%) of parent get their information from health facility. 434(41.9%) of parent get their information from TV 242(23.4%) get theirs from radios, 137(13.2%) get theirs from newspapers, 708(68.4%) get theirs from religious media, 270(26.1%) get theirs from association/unions, 588(56.8%) get theirs from friends and 674(65.1%) get theirs from family members.Most of the parents get their information from health facilities and least from newspapers.

RECOMMENDATIONS

TO THE GOVERNMENT

1 They should make sure that immunization services are encouraged and easily accessible. From this study it showed that the majority of them have a good knowledge about it.
2 The government should conduct comprehensive awareness campaigns to educate parents and caregiver about the importance of immunization
3 They should prioritize continuous training and capacity-building programs for healthcare providers,focusing on immunization practices, and other health care practices to ensure that they are equipped with up to date knowledge and skills.
4 They should explore and implement sustainable healthcare financing program such as health insurance schemes.
5 The government should develop and promote reliable sources of child health information such as digital platforms, local health campaigns and educational materials to reach a wider audience

TO HEALTH CARE WORKERS

1. The HCW should foster effective communication channels between parents, caregivers to ensure that healthcare information is shared accurately and reaches the intended audience.
2. They should collaborate with schools and community organizations to raise more awareness about the importance of immunization and other health care practices
3. They should explore and promote various healthcare financing methods to ensure that children have access to affordable and comprehensive healthcare services
4. The HCW should advocate for increased investments in healthcare infrastructure,including the establishment of well-equipped healthcare centers

TO THE COMMUNITY

1. Should encourage parents and caregivers to prioritize immunization for their children and also raise more awareness about the importance of immunization by organizing community-wide campaigns programs
2. Foster partnership between healthcare providers and community organizations to improve access to healthcare for children.
3. Identify reliable and easily accessible sources of healthcare information for parents and caregivers.

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