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LOCAL GOVERNMENT ADMINISTRATION AND PRIMARY HEALTHCARE SERVICE DELIVERY IN KEFFI LOCAL GOVERNMENT AREA OF NASARAWA STATE

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Abstract

The objective of the study is to examine the effect of local government administration and primary healthcare service delivery in Keffi local government area, Nasarawa state. The study adopted a survey and documentary research design in its investigation. The survey design was adopted and inferential statistics were also used that involves drawing conclusions and making inferences about a population based on data collected from a sample. Findings from the study show that Keffi local government council has not provided adequate qualified health professionals for service delivery in Keffi local government, and the study shows that Keffi local government council has adequately provided physical infrastructure and facilities for in primary healthcare Center (PHC) service delivery in Keffi local government. Given the lack of adequate qualified health professionals in Keffi local government, it is crucial to address this issue to enhance service delivery in primary healthcare (PHC). The local government council should take proactive measures to recruit and deploy more qualified health professionals to meet the healthcare needs of the community.

Keywords: Local Government Administration, Service Delivery, Qualified Health Professional,

Introduction

The most valuable possession humanity can have is good health. Health is not merely the absence of diseases or infirmity, but a state of complete physical, social, and mental well-being. It is often equated with wealth, as reflected in the popular saying, "Health is Wealth." Unfortunately, the true value of sound health is often only recognized and appreciated when it starts to decline or is completely lost. Governments allocate substantial funds to the health sector each year to address the health challenges faced by the general population. In Nigeria, Primary Healthcare (PHC) plays a central role in the healthcare system, aiming to provide essential health services to people with their active involvement.

Despite these efforts, health indicators in Nigeria have consistently fallen short of the country's Sustainable Development Goals (SDGs), with minimal progress observed over the years. According to the Federal Republic of Nigeria Constitution (1999), health falls under the concurrent legislative list, meaning that all three levels of government share the responsibility of promoting health. Local governments are specifically

tasked with providing primary healthcare services within their respective areas, as outlined in the fourth schedule of the constitution.

Before 1987, Nigeria primarily focused on curative healthcare services, with limited attention given to preventive healthcare. This approach heavily favored tertiary healthcare delivery through Teaching and Specialist Hospitals, while neglecting the cost-effective nature of preventive measures, which had gained international recognition. The deteriorating healthcare delivery system, particularly in developing countries, caught the attention of the international community. This led to the Alma-Ata Declaration in Russia in 1978, where primary healthcare was defined by the World Health Organization (WHO) as practical, scientifically sound, socially acceptable methods and technologies made universally accessible to individuals and families in the community through their active participation. The declaration also emphasized the government's responsibility to prioritize health as a means to enable individuals to lead socially and economically productive lives

The provision of primary healthcare services in Keffi Local Government Area, as in many other parts of Nigeria, faces numerous challenges and shortcomings. These challenges are rooted in broader systemic issues within the country's healthcare system. A study by Aregbesola and Khan (2017) highlighted some of the main factors contributing to the poor state of primary healthcare facilities in Nigeria, including inadequate staffing, lack of essential equipment and drugs, and dilapidated infrastructure.

One of the significant challenges faced by primary healthcare facilities in Nigeria, including those in Keffi Local Government Area, is the scarcity and maldistribution of qualified healthcare professionals. Many healthcare workers tend to concentrate in urban areas, leaving rural communities underserved. This shortage of skilled personnel adversely affects the quality and availability of healthcare services in these areas. Inadequate staffing levels mean that healthcare facilities often struggle to meet the demands of their communities effectively.

Furthermore, the lack of essential equipment and infrastructure further compounds the challenges faced by primary healthcare facilities. Outdated or nonexistent medical equipment hampers the ability of healthcare providers to diagnose and treat patients effectively. Dilapidated infrastructure not only poses safety risks but also affects the overall functionality of the facilities. Without proper equipment and infrastructure, healthcare providers are limited in their capacity to deliver adequate care to the residents of Keffi Local Government Area.

Another critical issue is the availability of essential drugs. Many primary healthcare facilities across Nigeria, including Keffi Local Government Area, frequently experience shortages or unavailability of necessary medications. This situation significantly hinders the ability to provide comprehensive healthcare services to the community. Patients often have to bear the burden of sourcing medications themselves, which can be costly and burdensome, particularly for those in low-income households.

The consequences of these challenges are reflected in the performance and inadequacies of primary healthcare services in Nigeria, as mentioned in the observations by Udenta & Udenta (2018). The overall quality of care provided in many primary healthcare facilities is subpar, and the referral system, which is crucial for ensuring continuity of care, is often weak or non-existent. These issues collectively contribute to a significant gap in healthcare provision, particularly for the most vulnerable members of society.

Addressing these challenges requires a multifaceted approach. It entails adequate investment in healthcare infrastructure, including the renovation and construction of primary healthcare facilities, as well as the provision of essential medical equipment and supplies. Efforts should also be made to attract and retain qualified healthcare professionals in rural areas, through incentives such as improved working conditions, training opportunities, and better remuneration.

Additionally, there is a need for better coordination and collaboration between different levels of government and relevant stakeholders to address the systemic issues in Nigeria's healthcare system. This includes strategic planning, resource allocation, and monitoring and evaluation mechanisms to ensure the effective delivery of primary healthcare services.

Overall, the effective administration of local governments, such as the Keffi Local Government Area, is crucial for the development and welfare of communities. However, to achieve meaningful progress, concerted efforts are required to overcome the challenges facing primary healthcare services in Nigeria, particularly in areas with limited resources and infrastructure. By addressing staffing shortages, improving infrastructure and equipment, and ensuring the availability of essential drugs, local governments can play a significant role in improving the healthcare outcomes and well-being of their residents.

In 2020, Nigeria's health system was ranked 187th among member states by WHO, despite the introduction of PHC. The health indicators reflect poor health status. Unfortunately, many of the implemented strategies have failed to yield the desired results. According to UNICEF's report in 2020, child mortality is primarily caused by malaria, diarrhea, and malnutrition. Additionally, malaria cases are increasing among the adult population, while access to safe water is lacking, resulting in the widespread prevalence of waterborne diseases. The high spread of HIV/AIDS could be attributed to a significant portion of the population neglecting self-examination. Furthermore, due to insufficient facilities and personnel, many Comprehensive Health Centers are unable to admit patients overnight. Since the year 2000, the goal of providing health for all has remained an elusive challenge in Nigeria's health sector, leading to considerable controversy. Recognizing the poor health indicators, the administration under Obasanjo initiated a comprehensive health reform program aimed at expanding and strengthening the primary healthcare system. This program is intended to provide promotive, preventive, restorative, and rehabilitative care to all citizens of the country (FMH, 2018). However, for primary healthcare to achieve its objectives, it requires adequate funding, effective implementation, and competent management in the field. Despite the primary goal of PHC being to make healthcare accessible, affordable, acceptable, and sufficient for the well-being of the population, existing literature suggests that the health status of the people has continued to deteriorate, with preventable diseases taking a heavy toll (AAFP, 2016). As a result, the effectiveness and efficiency of PHC services in Nigeria have been widely criticized, as they have not significantly improved the overall health status of the population. This study aims to address these concerns and investigate the reasons behind these shortcomings.

Literature Review

Conceptual Issues

Primary Health Care (PHC)

The popular Alma Ata declaration on Primary Health Care (PHC) pronounced in 1978 was rooted in the need to address the basic health problems in communities to provide, promote, prevent, and render curative services to the people coupled with rehabilitative services for health and healthy living (Alenoghena et al. 2014). Nigeria was among the 134 signatories to this invaluable idea. Subsequently, several reorganizations of the Nigerian health structure to align with the new vision were made. The implementation of PHC, primarily through services provided at primary health centers, varies based on the type of PHC facility in Nigeria. Several other PHC services within the health precinct include community mobilization, service integration, and selected PHC programs under the auspices of international collaborators. Primary Health Care (PHC) is driven by a political philosophy that emphasizes a radical change in both the design and content of conventional healthcare services. It also advocates an approach to health care principles that allow people to receive health care that enables them to live socially and economically productive lives (Obioha & Masemote, 2011).

Similarly, the aims and objectives of primary healthcare as stated by WHO (1978) are: to make health services accessible and available to everyone wherever they live

or work; to tackle health problems causing the highest mortality and morbidity at a reasonable cost and affordable to the community; and to ensure that whatever the technology adopted for use, it must be within the community's ability to use effectively and maintain.

In sum, PHC is essentially aimed at promoting health, preventing diseases, curing diseases, and rehabilitating individuals to live full, normal lives after illness or disability. In the 1999 Constitution of the Federal Republic of Nigeria, health is on the concurrent legislative list, and by implication, the three tiers of government are vested with the responsibility to promote health. According to the constitution, the federal, state, and Local Governments shall support in a coordinated manner a three-tier system of healthcare in which Primary healthcare, secondary healthcare, and tertiary healthcare become the responsibility of the Local, state, and Federal governments, respectively. Primary healthcare does not intend to function in isolation but in collaboration with referral and specialist services. These various services should be mutually supportive, and it should be noted that without good primary healthcare, the referral services would be overwhelmed by problems that would have been dealt with efficiently at the primary level. On the other hand, primary health care requires the support of referral services to cope with problems that are beyond the peripheral units. Therefore, PHC shall provide general health services of preventive, promotive, curative, and rehabilitative nature to the population as the entry point of the health care system. It implies, therefore, that the provision of health care at this level is largely the responsibility of Local Governments with the support of State Ministries of Health and within the pivot of National Health Policy.

Contemporary Challenges in Primary Health Care Delivery in Nigeria

In their ideal function and objective of operation, primary health care (PHC) centers are designed to be the filtering units for those who require specialized services at higher levels of care. However, Abdulraheem et al. (2012) observe that vital specialized medical services such as radiotherapy, orthopedic procedures, and surgeries are obvious and completely absent in the centers. In a global setting, Uzochukwu (2017) opines that Health systems around the globe still fall short of providing accessible, good-quality, comprehensive, and integrated care. "As the global health community sets ambitious goals of universal health coverage and health equity in line with the 2030 Agenda for Sustainable Development, there is increasing interest in access to and utilization of primary health care in low- and middle-income countries" (Uzochukwu, 2017).

While it was both logical and visionary that Primary Healthcare, being a community-oriented medical care arena, be established and operated around the lower tier of government and be perceived to be closest to the people, the surrendering of primary healthcare services to the capacity of local government areas has negative implications for the sustainability and quality of healthcare services rendered (Aigiemolen et al., 2014). Knowing very well that governance at the local government level in most cases has the weakest technical capacity to support the required healthcare facilities and services for the members of a community (Aigiemolen et al., 2014), Poor leadership and administration, evident in poor organizational structures, insufficient funding, and corruption, have also contributed to the failure of primary health care in Nigeria (Oluwasogo and Sebutu 2020). This problem is great proof that all sectors of the nation are plagued by corruption. Typically, this phenomenon is evident in diverse cases of fund diversion and misappropriation in every sphere of government. Consequently, a high number of donors to healthcare services in Nigeria are withdrawing and reducing their support as questions and calls for much more scrutiny of the implementation of the programs are being made (Alenoghena et al. 2014).

Concept of Local Government

This connotes the government at the grassroots or periphery, saddled with the responsibilities of making bye-laws and providing social services to people in local areas. It is the government that governs the affairs of the people who live in the local or rural area. This view was aptly supported by Awofeso (2016), who avers that local

government represents the governing body or administrative units empowered to govern the affairs of people in a certain locality. Awofeso (2016) further reveals that the governing body can either be elected or appointed. It is important to note that the elected ones are duly recognized by the constitution, while the ones appointed (the caretaker committee) are only known to the state government. Similarly, the Guideline for Local Government Reform, FGN (1976), defines local government as government at the local level exercised through representative councils established by law to exercise specific powers in defined areas and provide social services to local areas. This definition is in line with that of the United Nations Office for Public Administration, which sees local government as a political subdivision of a nation (in a federal system) or state that is constituted by law and has substantial control of local affairs, including the powers to impose taxes or to exact labor for prescribed purposes.

Local government is government at the grassroots level. According to Ojofeitimi (2020), the word "local" connotes that councils are meant for small communities, and the word "government" means that they have certain attributes of government. The concept of "local government" may be seen as a segment of a constituent state or region of a nation-state, established by law to provide public services and regulate public affairs within its area of jurisdiction (Ikelegbe, 2015). As King (2018) observes, local government is universally found in modern politics, although it goes by various appellations. Its legitimacy stems from its official duties of representing the interests or wishes of the residents and administering to their needs. Founded on democratic ideas, it is required that local governments be allowed to control their affairs at this level, especially since this is the point at which interests and welfare are most likely to be directly affected.

Concept of Service Delivery

Staus (2015) agrees with this point of view, arguing that in economic transactions, specialized skills and knowledge are transferred for money rather than tangible assets. The author Whitaker (2018) observes that depending on the type of service provided, each service has the primary goal of transforming the customer, with the client being the primary beneficiary of the transformation.

Because it is a critical role of the government and its institutions, the public service is responsible for providing services that society requires to preserve and improve its welfare. As argued by Ghatak (2017), public services are an important factor in quality of life that cannot be measured in terms of percentage income. It is emphasized by the writers that service delivery is an important component of the poverty reduction strategy. Services, according to Hernandez (2016), are essential to poverty alleviation and the achievement of all Millennium Development Goals (MDGs) both directly and indirectly, such as increasing the availability and affordability of education, health care, and women's emancipation through entrepreneurial and employment opportunities.

According to Hoogwout (2016), residents are increasingly demanding greater convenience in their dealings with the government as a general trend. The relationship between citizens and government is referred to as service delivery. Increasing trust in the government, as Hoogwout (2016) concluded, may be achieved by enhancing service delivery to individual citizens. Service classifications are defined by the Organisation for Economic Cooperation and Development (OECD) (2018) and include the type of business that delivers the service, the type of user who uses the service, and the nature of the service itself. The delivery of public goods and services at the local government level or the grass-roots level is aimed at enhancing the standard of living of the populace to the next level (Angahar, 2013).

Empirical Review

Kwaskebe, et al (2022) find out the factors that impede the growth and retard the services of PHC, with special attention to the situation in Isiala-Ngwa North LGA. The study used a cross-sectional descriptive design with a structured questionnaire that was used to collect data from primary healthcare workers, Doctors, nurses, Community health extension workers, community heads,

as well as patients. A total of fifty respondents were used for this study. Data collected was analyzed via SPSS version 16, and results were presented in frequency distribution tables. x2 was used for the statistical test of significance at a 5% confidence level. The study revealed that there is a shortage of healthcare workers and poor funding, which could be responsible for the inadequate medical facilities observed in the study. Primary healthcare workers are faced with many challenges, such as delays in payment of salaries and work stress due to a lack of equipment to work with. All these are responsible for a lack of job motivation.

Udenta and Udenta (2019) take a critical look at the challenges militating against primary health care delivery at the local levels in Nigeria, specifically in the Enugu East local government of Enugu state. The study examines the efforts and challenges of the Enugu East local government in improving the health care service in rural Enugu East communities. The methodology of this study adopted a survey design concerning primary sources (a structured questionnaire) as an instrument of data collection, the quantitative Likert scale of data analysis, and Easton's political system framework for empirical analysis. This study further revealed that primary health care delivery is fraught with challenges (such as inadequate funding, drugs, and quality service) that stem from the abysmal failures of the Enugu East local government. This work, therefore, recommends measures such as improved budgetary allocation, strengthening the supply chain of drugs, and enhanced clinical service as conditions imperative for improved health care service in Enugu East rural communities.

Olalekan and Oladoyin (2021) examined the determinants of the patronage of available primary health care services by rural women in Osun State, Nigeria. This study aims to provide service delivery authorities with information on the barriers to patronage of health services. Data for the study were collected from both primary and secondary sources. Descriptive statistics like frequencies, percentages, and mean values were used for analysis. Multiple regression was used to identify determinants, and the double-log functional form had the best fit. 45 health workers and 270 rural women were selected through multi-stage sampling. The study revealed that the pattern of patronage of primary health centers in the study area had a progressive increase over five years (2014–2018) and that most of the respondents (rural women) on average resided 1.85 kilometers away from the health centers. The study concluded that age of respondents (α = 0.928), monthly income (α = 0.018), shortage of well-trained health professionals (α = -0.393), a conducive environment (α = 0.454), cleanliness of the environment (α = 0.320), interpersonal relationships between staff and patients (α = 0.325), timely diagnosis and treatment of health problems by PHC staff (α = 0.395), ability of staff to prescribe effective drugs for treating diseases (α = 0.756), cultural beliefs (α = -0.289), and nature of the illness (α = -0.510) were major determinants of patronage of PHC services in the study area. These factors, taken together, accounted for 73.6% of the variation in the level of PHC patronage by rural women. The most popular health services regarded as always available to women were immunization (100%) and general treatment of illness (95.6%). Some of the recommendations of the study are that health facilities should be renovated regularly and that facility that will make health visits a comfortable experience should be provided. As income was found to be a determinant of patronage, it is also recommended that rural women be helped to increase their disposable income through private-public partnership support of enterprises.

Oyekale (2017) analyzed the service readiness of Primary Health Care (PHC) facilities in Nigeria with a focus on the availability of some essential drugs and medical equipment. Service Delivery Indicator (SDI) data for PHC in Nigeria were used. The data were collected from 2480 healthcare facilities in 12 states in Nigeria's six geopolitical zones between 2013 and 2014. Data were analyzed with descriptive statistics, Principal Component Analysis (PCA), and Ordinary Least squares regression. The study revealed medical disposables such as hand gloves and male condoms were reported to be available in 77.18 and 44.03% of all healthcare facilities, respectively, while immunization services were provided by 86.57%. Functional stethoscopes were reported by 77.22% of the healthcare facilities, while only 68.10% had

sphygmomanometers. In the combined healthcare facilities, the availability of some basic drugs such as Azithromycin, Nifedipine, dexamethasone, and Misoprostol was low at 10.48, 25.20, 21.94, and 17.06%, respectively. It was concluded that for Nigeria to ensure better equity in access to healthcare facilities, which would facilitate the achievement of some health-related sustainable development goals (SDGs), the quality of services at its healthcare facilities should be improved. Given some differences between the availability of basic medical equipment and its functionality and the lack of some basic drugs, a proper inventory of medical services should be taken with efforts put in place to increase funding and ensure proper management of healthcare resources.

Theoretical Framework

For this study, the Social Impact Theory, developed by Bibb Latane (1968), was adopted as the framework for the study. The Social Impact Theory focuses on how individuals' behavior is influenced by the social environment and the presence of others. It posits that people's actions are determined by the social forces around them, including the perceived importance of the situation, the presence of authority figures, and the extent to which they feel responsible for the outcomes (Latané & Darley, 1968). Applying this theory to the study on the local government administration and primary healthcare service delivery in Keffi local government area, Nasarawa state, you can analyze the social influences that affect the educational system and its outcomes.

The Social Impact Theory, developed by Bibb Latane in 1968, can be applied to the study of local government administration and primary healthcare service delivery in the Keffi local government area, Nasarawa state. The theory explores the factors that influence social influence and how individuals' behaviors are shaped by the presence or absence of others. In the context of local government administration and healthcare service delivery, the theory can help us understand how different factors affect the effectiveness and impact of these services on the community.

i. Social forces: According to the Social Impact Theory, the impact of a particular behavior is influenced by three social forces: strength, immediacy, and number. In the case of local government administration, the strength of the social forces can be related to the resources available to the government, such as funding, personnel, and infrastructure. The more resources a local government has, the stronger its impact on primary healthcare service delivery. Immediacy refers to how close the social forces are to the individuals affected. In the context of healthcare, it can be related to the availability and accessibility of primary healthcare services in Keffi. The number of social forces refers to the number of people affected by the behavior, which can be related to the population size and demographic characteristics of Keffi.

ii. Social influence: The Social Impact Theory emphasizes the role of social influence in shaping individual behavior. In the context of local government administration and healthcare service delivery, social influence can occur through various channels. For example, community leaders, healthcare professionals, and government officials can exert social influence through their actions, policies, and communication. Their behavior and decisions can shape the behavior of individuals in the community, including their utilization of primary healthcare services and their level of engagement with the local government.

iii. Diffusion of responsibility: Another aspect of the Social Impact Theory is the diffusion of responsibility, which suggests that individuals may feel less accountable for taking action or initiating change when they perceive a shared responsibility among a larger number of people. In the context of local government administration and healthcare service delivery, this can be relevant to the decision-making processes, resource allocation, and accountability mechanisms. If individuals perceive that their local government and healthcare providers are responsible for addressing community health issues, they may feel less individually responsible and may not actively participate in community health initiatives.

Applying the Social Impact Theory to the study of local government administration and primary healthcare service delivery in the Keffi local government area, Nasarawa state can help identify the factors that influence the effectiveness of these services and the level of community engagement. By considering the strength, immediacy, and number of social forces, as well as the role of social influence and diffusion of responsibility, policymakers and stakeholders can better understand the dynamics at play and develop strategies to improve healthcare service delivery and community participation in decision-making processes.

Methodology

This study adopted a survey and documentary research design in its investigation. The survey design was adopted because it covers the entire population using the representative sample of the study.

Inferential statistics was also used hence it is a branch of statistics that involves drawing conclusions and making inferences about a population based on data collected from a sample. It utilizes various techniques to analyze and interpret sample data to make predictions, test hypotheses, and generalize findings to a larger population.

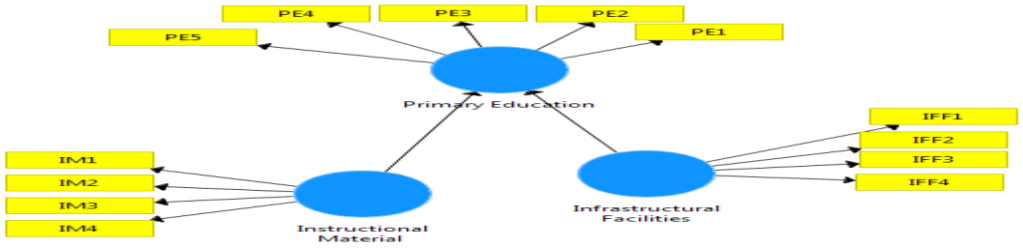
The population of this study consists of 36 heads of PHC personnel from 18 PHC, 20 members of the Keffi local government health department, and 236 patients from the PHC who are presently in PHC within the Keffi local government area, i.e., 272 respondents in total. Using a judgmental or purposeful sampling technique, the necessary sample of one hundred and twenty-five (125) respondents was drawn from the total respondents.

The study data were collected using structured questionnaires in a 5-point Likert scale format. The questionnaire copies were distributed by a simple random method to respondents. The data collected was analyzed using SMART Partial Least Square Structural Equation Modeling (PLS-SEM), which is a statistical analysis technique that enables the exploration of complex relationships between latent constructs and observed variables. PLS-SEM is suitable for this study as it allows for the measurement of both the direct and indirect effects of consumer decision-making factors on business performance indicators.

The PLS-SEM analysis involved a two-stage approach. In the first stage, a measurement model was established to evaluate the reliability and validity of the constructs used in the study. In the second stage, a structural model was developed to assess the relationships between the constructs. The results of the analysis were presented in the form of path coefficients, which indicate the strength and direction of the relationships between the constructs.

The following established structural model was used:

Structural Model



Where:

Qualified health professional and Physical Infrastructure and Facilities: Independent variables
Primary Healthcare Service Delivery: Dependent Variable.
PE1-PE5: Latent variables for qualified health professionals.
IFF1-IFF4: Latent variables for Physical Infrastructure and Facilities.
IM1-IM4: latent variables for Service delivery.

Results and Discussion

Table 1: Response Rate

Variables	Frequency
Questionnaires distributed	125
Questionnaires Returned	123
Usable questionnaires	117

Source: Field Survey, 2023

Of the one hundred and twenty-five questionnaires distributed to the respondents (125), one hundred and twenty-three (123) questionnaires were successfully retrieved and a total of one hundred and seventeen (117) questionnaires were found usable after sorting and data cleaning.

After the PLS algorithm was carried out, it was discovered that all the factor loadings meet the recommended benchmark of 0.7 as recommended by Oyekale (2017), which is displayed in Table 2 below.

Table 2: Reliability of the Indicators Loadings

	Qualified health professional	Physical Infrastructure & Facilities	Service delivery
IFF1	0.895		
IFF2	0.895		
IFF3	0.901		
IFF4	0.886		
IM1		0.786	
IM2		0.858	
IM3		0.841	
IM4		0.770	
PE1			0.807
PE2			0.890
PE3			0.783
PE4			0.751
PE5			0.811

Source: Smart PLS Output, 2023

Based on the result above, it can be concluded that all the loadings are within the recommended benchmark of 0.7 as recommended by Hair, et al, (2019).

Factor loadings represent the correlation between the observed indicators and the corresponding latent variable. The factor loadings matrix can be used to assess the strength and direction of the relationship between each observed indicator and the latent construct.

Looking at the factor loadings provided in the matrix, we can see that each observed indicator has a loading on the corresponding latent construct. The values of the factor loadings range between 0 and 1, with higher values indicating a stronger relationship between the observed indicator and the corresponding latent construct.

Table 3: Construct validity and reliability of the indicators

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Qualified health professional	0.917	0.926	0.941	0.800
Physical Infrastructure & Facilities Materials	0.840	0.882	0.887	0.663
Service delivery	0.876	0.915	0.905	0.655

Source: SmartPLS Output, 2023

The table reports the results of construct validity and reliability analysis for the three constructs: qualified health professionals, physical infrastructure & facilities, and service delivery. These analyses are essential to ensure that the indicators (or items) that measure the constructs are reliable and valid.

The first reliability measure reported in the table is Cronbach's Alpha. This measure indicates the internal consistency of the indicators within each construct. Generally, a Cronbach's Alpha value above 0.7 is considered acceptable, and values above 0.8 are considered good. In this study, all three constructs have good Cronbach's Alpha values: 0.917 for qualified health professionals, 0.840 for physical infrastructure & facilities, and 0.876 for service delivery.

The second reliability measure reported in the table is rho_ A. This measure is an alternative to Cronbach's Alpha and provides a more conservative estimate of the constructs' internal consistency. The values of rho_A are generally slightly lower than those of Cronbach's Alpha. In this study, all three constructs have good rho_A values: 0.926 for qualified health professionals, 0.882 for physical infrastructure & facilities, and 0.915 for service delivery.

The third reliability measure reported in the table is Composite Reliability (CR). This measure is a more robust and accurate measure of internal consistency than Cronbach's Alpha and rho_A. The CR values for all three constructs are excellent, exceeding the recommended threshold of 0.7. The values are 0.941 for qualified health professionals, 0.887 for physical infrastructure & facilities, and 0.905 for service delivery.

Finally, the Average Variance Extracted (AVE) measure is reported in the table. AVE assesses the amount of variance captured by the indicators for each construct. A value of 0.5 or higher indicates that the indicators are capturing a substantial amount of variance in the construct. In this study, all three constructs have AVE values above 0.5, with qualified health professionals having an AVE of 0.800, physical infrastructure & facilities an AVE of 0.663, and service delivery an AVE of 0.655. This suggests that the indicators are valid measures of their respective constructs.

Table 4: Discriminant Validity (HTMT

	Infrastructural Facilities	Instructional Material	Primary Education
qualified health professional			
physical infrastructure & facilities	0.475		
service delivery	0.515	0.568	

Source: SmartPLS Output, 2023

Based on the HTMT ratio values provided in the table, it can be concluded that the measures of qualified health professional, physical infrastructure & facilities, and service delivery have discriminant validity as all the ratio is below the 0.85 benchmark. This implies that the constructs are distinct from each other and capture different aspects of the underlying phenomena they represent in the model.

Table 5: Explanatory Power of the Model

	R Square	R Square Adjusted
Service delivery	0.446	0.436

Source: SmartPLS Output, 2023

The output provided is the R-squared and adjusted R-squared values for a Partial Least Squares (PLS) analysis conducted on the relationship between the independent variables (qualified health professional and physical infrastructure and facilities) and the dependent variable (service delivery) in Keffi local government area.

R-squared (R2) is a measure of the proportion of variance in the dependent variable that can be explained by the independent variables in the model. The R2 value for service delivery is 0.446, which indicates that the independent variables (qualified health professionals and physical infrastructure and facilities) explain approximately 44.6% of the variance in the dependent variable (service delivery).

Adjusted R-squared (R2_adj) is a modified version of the R-squared that takes into account the number of independent variables in the model. The adjusted R-squared value for service delivery is 0.436, which is slightly lower than the R-squared value due to the inclusion of two independent variables in the model.

Overall, these results suggest that the model using qualified health professionals and physical infrastructure and facilities as predictors of service delivery is a good fit for the data, as it explains a significant proportion of the variance in the dependent variable. However, it is important to note that there may be other factors beyond qualified health professionals and physical infrastructure and facilities that also influence the service delivery in Keffi local government area.

Fig 2: Measurement Model

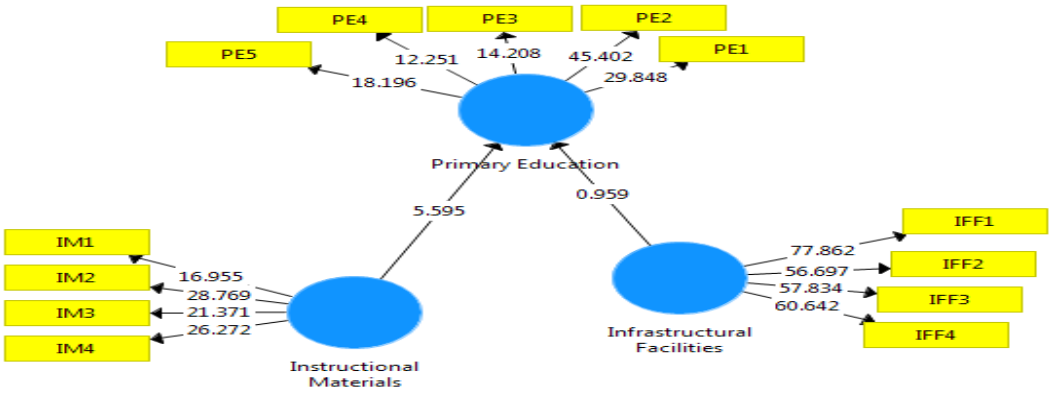


Table 6: Path Coefficient of the Model

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Qualified health professional -> service delivery	-0.146	-0.140	0.152	0.959	0.338
Physical infrastructure -> service delivery	0.792	0.795	0.142	5.595	0.000

Source: SmartPLS Output, 2023

Hypothesis One

$H0_1$ there are no significant numbers of qualified healthcare professionals such as doctors, nurses, and others available in PHC within Keffi local government,

The path coefficient for the relationship between qualified health professionals and service delivery is -0.146 in the original sample. On average, across multiple samples, the path coefficient is -0.140. The standard deviation indicates that the path coefficients vary by approximately 0.152. The T statistics value of 0.959 suggests that the path coefficient is not very large relative to the variability. The associated p-value of 0.338 indicates that the relationship between qualified health professionals and service delivery is not statistically significant at conventional significance levels (e.g., alpha = 0.05).

Hypothesis Two

$H0_2$ there is no physical infrastructure and facilities available for primary healthcare service delivery in Keffi Local government area of Nasarawa state.

The path coefficient for the relationship between physical infrastructure & facilities and service delivery is 0.792 in the original sample. On average, across multiple samples, the path coefficient is 0.795. The standard deviation indicates that the path coefficients vary by approximately 0.142. The T statistics value of 5.595 suggests a strong relationship between physical infrastructure & facilities and service delivery, as the magnitude of the path coefficient is relatively large compared to the variability. The associated p-value of 0.000 indicates that the relationship is statistically significant, meaning that there is strong evidence to suggest a significant positive relationship between physical infrastructure & facilities and service delivery area.

i. Finding from the study shows that Keffi local government council has not provided adequate qualified health professional for service delivery in Keffi local government; this was demonstrated in Table 6, where the table revealed that there is no statistical relationship between qualified health professional and service delivery in PHC Keffi local government area. This finding collaborates with that of Udenta and Udenta (2019), who studied revealed that primary healthcare delivery is fraught with challenges (such as inadequate funding, drugs, and quality service) that stem from the abysmal failures of the Enugu East local government.
ii. Finding from the study shows that Keffi local government council has adequately provided physical infrastructures and facilities for PHC service delivery in Keffi local government; this was demonstrated in Table 6, indicating that there is a significant effect between physical infrastructures and facilities for PHC service delivery, where the majority of the respondents agreed that the local council is supplying clinics, medical equipment, and essential amenities necessary for effective service delivery. This finding collaborates with that of Kwaskebe, Atolagbe, and Kayode (2022) The study revealed that there is a significant relationship between healthcare workers and poor funding, which could be responsible for the inadequate medical facilities observed in the study.

Conclusion and Recommendations

The findings of the study on the Keffi local government council's provision of health services reveal two important aspects. Firstly, it is evident that there is a significant lack of qualified health professionals for service delivery in the local government area. This finding aligns with previous research highlighting the challenges faced in primary healthcare delivery, including inadequate funding, drug shortages, and poor quality service. The absence of a statistical relationship between qualified health professionals and service delivery emphasizes the need for urgent attention in addressing this issue.

On the other hand, the study indicates that the local government council has made satisfactory efforts in providing physical infrastructures and facilities for primary healthcare service delivery. The significant effect observed between physical infrastructures and service delivery highlights the positive impact of clinics, medical equipment, and essential amenities in facilitating effective healthcare provision. This finding is consistent with prior research that emphasizes the significance of healthcare

workers and the adverse effects of poor funding on the availability of medical facilities.

Keffi local government council has shown commendable progress in the provision of physical infrastructure and facilities, there is a critical need to address the lack of qualified health professionals to ensure comprehensive and high-quality healthcare services in the area. Adequate funding, improved drug supply, and a focus on enhancing service quality are crucial steps to overcome the challenges identified in this study and promote better healthcare outcomes for the community.

Based on the findings of the study, the following recommendations have been made:

i. Improve the recruitment and deployment of qualified health professionals: Given the lack of adequate qualified health professionals in the Keffi local government, it is crucial to address this issue to enhance service delivery in primary healthcare (PHC). The local government council should take proactive measures to recruit and deploy more qualified health professionals to meet the healthcare needs of the community. This could include developing strategies to attract healthcare workers to the area, providing incentives and competitive salaries, and establishing partnerships with educational institutions to train and support local healthcare professionals.
ii. Increase investment in healthcare funding: While the study indicates that Keffi local government has provided physical infrastructures and facilities for PHC service delivery, it also highlights the challenges arising from inadequate funding in the healthcare system. To address this issue, it is recommended that the local government council allocates more resources and funding to the healthcare sector. Adequate funding is essential to ensure the availability of medical equipment, drugs, and other necessary resources for effective service delivery. By prioritizing healthcare funding, the local government can improve the overall quality of healthcare services provided to the community.

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