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The Assessment of Referral Practices Among Basic Health Care Workers in Ifo Local Government of Ogun State

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Abstract: Introduction: A functional referral system is an essential component of primary healthcare delivery, ensuring continuity of care and efficient use of healthcare resources. However, in Nigeria, especially at the primary level, referral practices are often hindered by systemic, infrastructural, and human resource challenges. This study was conducted to assess the referral practices, knowledge levels, and availability of referral support tools among basic healthcare workers in Ifo Local Government Area, Ogun State, Nigeria.

Objective: The main objective of the study was to assess referral practices among basic healthcare workers in Ifo Local Government. Specifically, the study aimed to examine the knowledge of referral processes, availability of referral support tools, existing referral patterns, and the challenges encountered by healthcare workers in implementing effective referral services.

Method of Analysis: The study employed a descriptive cross-sectional design involving 195 healthcare workers selected through a two-stage sampling technique. A researcher-designed, structured questionnaire was used for data collection, covering knowledge, tools, practices, and challenges of referral. Data were analyzed using SPSS version 20. Descriptive statistics (frequency and percentage) were used to summarize the data, while Chi-square tests were used to assess associations between socio-demographic variables and referral knowledge, tool availability, and encountered challenges at a 0.05 significance level.

Results: Findings showed that 95.4% of respondents correctly recognized referral as part of patient care, and 71.3% correctly identified referral pathways. Knowledge of referral was significantly associated with sex (p=0.018) and cadre (p=0.000). In terms of support tools, 94.9% of respondents had good availability of referral support tools, though motor vehicle availability remained low at 37.4%. Religion was the only variable significantly associated with tool availability (p=0.014). Major challenges affecting referral practice included systemic health issues (79%), facility constraints (62.6%), receiving facility readiness (76.4%), and lack of continuous quality improvement mechanisms (77.9%). However, no socio-demographic variable had a statistically significant relationship with referral challenges.

Conclusion: The study concludes that although basic healthcare workers in Ifo LGA demonstrated high knowledge and reported the availability of key referral tools, systemic weaknesses continue to affect effective referral practices. Strengthening the referral system will require targeted interventions including consistent training, improved transport logistics, inter-facility communication, and supportive supervision. These improvements are vital to ensuring effective healthcare delivery and decongesting secondary and tertiary care centers in Nigeria.

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Keywords: Referral practices, Primary health care, Basic health care workers, Patient referral system, Ifo Local Government, Ogun State, Nigeria, Health service delivery

Background to the Study

The referral system is an integral component of a functional health system, serving as a crucial mechanism for ensuring continuity of care across different levels of service delivery. It enables health professionals, particularly those at the primary care level, to refer patients to higher-level facilities for further diagnosis, specialized treatment, or management that surpasses the capabilities available at their level of care (Enabulele & Enabulele, 2018). At its core, the referral process embodies a two-way relationship allowing patients to ascend to more advanced care when necessary and, ideally, to be returned to lower levels of care for follow-up and continuity. An effective referral system not only facilitates prompt and appropriate treatment but also optimizes healthcare resources, prevents the duplication of services, and contributes to overall efficiency in the healthcare system. It is therefore a fundamental tool in delivering equitable, timely, and quality care to the population, particularly in low- and middle-income countries (LMICs) like Nigeria, where healthcare infrastructure and human resources remain limited. Globally, the organization of healthcare delivery is commonly structured around three tiers: primary, secondary, and tertiary levels of care. Primary health care (PHC) serves as the entry point into the healthcare system and is designed to provide comprehensive, accessible, community-based care that includes promotive, preventive, curative, and rehabilitative services (Ross, 2021). It is meant to address the vast majority of an individual's health needs across the life course. Secondary care is provided by medical specialists and other health professionals who typically do not have first contact with patients, while tertiary care involves highly specialized medical services often delivered in referral hospitals or teaching institutions. A well-coordinated referral system facilitates smooth transitions across these levels, ensuring that care is provided at the most appropriate level for the patient's condition. When referral systems are dysfunctional or underutilized, patients may bypass PHC and seek care at higher levels unnecessarily, leading to overcrowding, inefficiencies, and increased healthcare costs (Watson et al., 2022; Abubakar et al., 2022).

In the Nigerian context, the referral system is frequently characterized by fragmentation, poor documentation, insufficient training of health workers, lack of feedback mechanisms, and logistical constraints such as inadequate transportation or communication facilities (Koce et al., 2019). This often results in patients bypassing PHC facilities in favor of secondary and tertiary hospitals, even for conditions that could be managed at the primary level. For example, studies have shown that more than 90% of patients attending tertiary healthcare facilities in Nigeria were not referred but came directly, a trend that leads to overburdened hospitals and underutilized PHC centers (Abubakar et al., 2022). This misalignment of service use undermines the goal of rational healthcare delivery, disrupts continuity of care, and compromises health outcomes. Moreover, weak referral linkages also mean that many patients who are referred do not reach the appropriate levels of care or fail to receive follow-up after specialist consultations, which further weakens the effectiveness of the health system.

One of the most concerning issues in Nigeria's referral practice is the inadequacy of feedback between referring and receiving facilities. Without appropriate feedback loops, referring providers remain uninformed about the outcome of their referral, thereby affecting continuity of care and impeding opportunities for learning and quality improvement (Idowu et al., 2018). This one-way traffic approach to referrals contradicts global best practices, which emphasize a bi-directional system of communication and cooperation among all levels of care. The problem is exacerbated by the lack of standardized referral tools such as referral forms, protocols, or electronic systems that can track patient movements and streamline inter-facility communication (Seyed-Nezhad et al., 2021). Another challenge to referral practices is the human factor. Health worker knowledge, perception, and attitude toward referral protocols are pivotal in determining whether a referral is made or not. Some providers may choose to manage complicated cases beyond their capacity due to overconfidence, fear of professional judgment, or patient pressure, while others may refer unnecessarily due to lack of

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diagnostic competence or confidence (Give et al., 2019). Training and capacity building for health workers at the PHC level on proper referral practices have been identified as essential strategies for overcoming these barriers. Ensuring that healthcare workers understand when, why, and how to make referrals—and that they have the tools and support to do so—is fundamental to the success of the referral system (Fernández-Méndez et al., 2020).

Furthermore, social and economic constraints significantly influence referral completion rates among patients. Many patients are unable to act on referrals due to poverty, high transportation costs, lack of accompanying family members, or perceived poor quality of care at the receiving facility (Lim et al., 2018). In rural and semi-urban communities such as Ifo Local Government Area in Ogun State, these barriers are even more pronounced. Gender dynamics also play a role, as women—particularly those who are caregivers or pregnant—often face restrictions in mobility and decision-making, limiting their ability to access higher-level care even when referred. These challenges underscore the need for a holistic approach to strengthening referral systems that considers not only institutional and technical issues but also community-level barriers and facilitators (WHO, 2014). It is also important to consider the implications of poor referral systems for the broader goals of the Nigerian health sector. With Nigeria aiming to achieve Universal Health Coverage (UHC) and reduce maternal and child mortality in line with the Sustainable Development Goals (SDGs), strengthening PHC and ensuring functional referral systems is vital. An efficient referral system is a marker of a well-integrated health system and contributes directly to better health outcomes by reducing delays in care, avoiding treatment duplication, and ensuring effective utilization of scarce resources (Assefa et al., 2020). It also helps decongest overburdened tertiary institutions and strengthens trust in community-based care services.

The situation in Ifo Local Government Area reflects many of these national-level challenges. The PHC facilities in the area are confronted with inadequate infrastructure, limited staffing, and poor logistical support, all of which contribute to suboptimal referral practices. Given these challenges, a focused assessment of referral practices among basic healthcare workers in Ifo is crucial. It offers an opportunity to identify gaps in knowledge, availability of referral tools, patterns of referral behavior, and systemic barriers that hinder effective referral. This information will be invaluable in informing policy, guiding training and investment, and ultimately contributing to the strengthening of Nigeria's healthcare system from the base up.

Methods

Research Design

The design used for this study is a cross-sectional survey. This design was selected because it involved a clear definition of the problem, collection of relevant and adequate data, interpretation of the data and skillful reporting of the findings.

Study Area

This study was conducted in Ifo Local Government Area (LGA), Ogun State, Nigeria. According to the 2006 National Population Census, Ifo LGA had approximately 41,997 households and a population of 164,486, covering an area of 521 square kilometers. It lies between latitudes 18°15'–19°55'N and longitudes 83°20'–84°20'E. The area experiences temperatures ranging from 10°C to 43°C annually and receives an average of 1280 mm of rainfall. Ifo shares boundaries with Ado-Odo/Ota to the north, Ewekoro to the south, Lagos State and Obafemi/Owode to the east, and Egbado South to the west. Ifo is one of the fastest-growing submarkets in the Ogun metropolis, with land use dominated by residential, commercial, and scattered agricultural zones. It hosts several industries and bank branches. As a third-tier government unit, Ifo LGA operates under the authority granted by the 1976 Local Government Reforms, responsible for delivering grassroots governance within defined boundaries.*(Ross, 2021)*

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Population of the Study

The population for this study comprised all basic healthcare workers employed at the primary level of healthcare delivery within Ifo Local Government Area of Ogun State. This includes health workers across various cadres who are engaged in the provision of essential health services within the public primary healthcare facilities in the local government.

Sample Size and Sampling Techniques

A two-stage sampling procedure was adopted for the study. In the first stage, simple random sampling was employed to select 70% of the total number of public primary healthcare centers in Ifo Local Government. At the second stage, a purposive sampling technique was used to select healthcare workers who were on permanent employment at the selected facilities. The sample size was determined using Taro Yamane's formula, based on a population of 340 basic healthcare workers as recorded in the Local Government's nominal roll. With a 5% margin of error, the calculated sample size was 183. To accommodate potential non-responses and ensure adequate representation, an additional 10% was added, bringing the total number of respondents to **195.** This sampling approach was designed to ensure that the study captured a representative cross-section of basic healthcare workers in Ifo Local Government, while focusing on those with permanent employment status who are more likely to be familiar with referral practices within the primary healthcare system.

Research Instrument

The instrument used for data collection in this study was a researcher-designed questionnaire developed to capture relevant data on referral practices among basic healthcare workers in Ifo Local Government Area of Ogun State. The questionnaire was structured to cover multiple dimensions of the study objectives. It included sections that assessed the demographic characteristics of respondents, their level of knowledge regarding referral procedures, the availability of referral support tools, the patterns of referral practices among healthcare workers, and the challenges encountered in implementing effective referral systems at the primary healthcare level. The content of the questionnaire was carefully crafted to reflect the operational realities of health workers within the study area, ensuring that it aligned with the research objectives and scope. To ensure the validity of the instrument that is, its ability to accurately measure what it was intended to the initial draft of the questionnaire was submitted to the project supervisor for expert review. This review focused on assessing the clarity of questions, appropriateness of language, and relevance of content in relation to the study objectives. Constructive feedback and recommendations provided by the supervisor were incorporated into the instrument, thereby enhancing both its face and content validity. The reliability of the instrument was established through a test-retest method during a pilot study. This involved administering twenty-five copies of the questionnaire to a group of twenty-five respondents in Yewa North Local Government, an area demographically similar to the study location but excluded from the main study. The same questionnaire was re-administered to the same group of respondents two weeks later. The responses from the first and second administrations were analyzed using the Pearson Product Moment Correlation Coefficient to determine the consistency of the instrument over time. The correlation coefficient obtained ranged between 0.76 and 0.79 for most items, indicating an acceptable level of reliability and confirming that the instrument was dependable for data collection in the main study.

Data and Statistical Analysis

Data collected from the field were systematically coded and entered into the Statistical Package for the Social Sciences (SPSS), version 20, for analysis. Descriptive statistics, including frequency counts and percentages, were used to summarize the demographic characteristics of respondents and to address the research questions. The results of the descriptive analyses were presented in tabular form for clarity and ease of interpretation. In addition, inferential statistics were employed to test the hypotheses formulated for the study. Specifically, the Chi-square (χ^2) test was used to determine the association between selected variables. All hypotheses were tested at a 0.05 level of significance.

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Ethical Approval

Ethical clearance for the study was obtained through a formal letter issued by the Department of Public Health, Lead City University, Ibadan. The letter, which outlined the title and purpose of the research, was presented to the Medical Officer of Health in charge of Ifo Local Government Area to seek official permission to conduct the study within the selected primary healthcare facilities. Subsequently, the officers in charge of each selected primary health centre were also approached and their consent obtained prior to data collection. To ensure the confidentiality and anonymity of respondents, all questionnaires were designed to exclude names and any personally identifiable information. Participants were informed about the voluntary nature of their participation and were assured that the information provided would be used solely for academic purposes and handled with strict confidentiality. These measures were taken to uphold ethical standards and protect the rights and privacy of all study participants.

Results

Table 1: Socio-Demographic Characteristics of Basic Healthcare Workers in Ifo Local Government

Variable	Frequency	Percent
Age		
Less Than 25	22	11.3
25 – 34	73	37.4
35 – 44	63	32.3
45 And Above	37	19.0
Sex		
Male	71	36.4
Female	124	63.6
Education		
Diploma	69	35.4
First Degree	81	41.5
Second Degree	45	23.1
Cadre		
Doctor	19	9.7
Nurse	54	27.7
Chw	79	40.5
Lab Tech	43	22.1
Work experience		
Less Than 5 Years	78	40.0
5-9 Years	74	37.9
10-14 Years	30	15.4
15 and Above	13	6.7
Marital Status		
Single	29	14.9
Married	152	77.9
Previously Married	14	7.2
Religion		

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Christianity	143	73.3
Non Christianity	52	26.7

The socio-demographic characteristics of the respondents, as presented in Table 1, reveal a diverse composition of basic healthcare workers in Ifo Local Government Area. In terms of age distribution, the majority of respondents were within the age group of 25 to 34 years, accounting for 37.4% of the sample, followed by those aged 35 to 44 years who made up 32.3%. Respondents aged 45 years and above constituted 19.0%, while the least represented group were those less than 25 years, comprising 11.3% of the sample. With respect to sex, a larger proportion of the respondents were female, representing 63.6%, while males accounted for 36.4%. In terms of educational attainment, 41.5% of the respondents held a first degree, 35.4% possessed a diploma, and 23.1% had a second degree. This suggests that the workforce is relatively well-educated, with a substantial proportion having attained higher education qualifications. The distribution across professional cadres indicated that community health workers (CHWs) formed the largest group, accounting for 40.5% of the respondents. Nurses followed with 27.7%, while laboratory technicians represented 22.1%. Doctors were the least represented cadre, making up 9.7% of the total respondents. Regarding years of work experience, 40.0% of the respondents had less than five years of experience, while 37.9% had worked between five to nine years. A smaller proportion, 15.4%, reported having between ten to fourteen years of experience, and only 6.7% had been in service for fifteen years or more. This reflects a relatively young workforce with a predominance of early to mid-career professionals. Marital status distribution showed that a significant majority of the respondents were married, accounting for 77.9%, while 14.9% were single. A minority of 7.2% indicated that they were previously married. In terms of religious affiliation, Christianity was the predominant religion among respondents, with 73.3% identifying as Christians, while 26.7% belonged to other religious groups.

Table 2: Knowledge of Referral among Basic Healthcare Workers in Ifo Local Government, Ogun State.

Variable	Frequency	Percent
Level of Healthcare in Nigeria is?		
Correct	76	39.0
Incorrect	119	61.0
Normal or Ordinary Referral can be From		
Correct	139	71.3
Incorrect	56	28.7
Two Way Referral Includes		
Correct	115	59.0
Incorrect	80	41.0
Referral is Mostly Initiated For		
Correct	62	31.8
Incorrect	133	68.2
Referral is Part of Patient Care Provision		
Correct	186	95.4
Incorrect	9	4.6

The data presented in Table 2 provides insight into the level of knowledge regarding referral practices among basic healthcare workers in Ifo Local Government Area of Ogun State. The results indicate that knowledge about the levels of healthcare in Nigeria is relatively low among respondents, as only 39.0% correctly identified the structure of the healthcare system, while a larger proportion of 61.0% responded incorrectly. However, when asked about what constitutes a normal or ordinary referral, a substantial majority of 71.3% responded correctly, suggesting a better understanding of the general process through which referrals occur within the health system. Regarding the concept of two-way referral, which emphasizes the importance of feedback and continuity between referring and receiving

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health facilities, 59.0% of respondents demonstrated correct knowledge, while 41.0% did not fully understand this critical aspect of referral dynamics. The responses to the item on who referrals are mostly initiated for revealed a significant knowledge gap; only 31.8% of the healthcare workers answered correctly, indicating that the majority 68.2% lack adequate understanding of the clinical indications or rationale for initiating referrals. Nonetheless, the overwhelming majority of respondents 95.4% correctly recognized that referral is an integral part of patient care provision, indicating that while specific knowledge about referral procedures and guidelines may be limited, most healthcare workers appreciate the overall importance of referrals within the continuum of care.

Figure 1 Percentage of Knowledge of Referral among Basic Healthcare Workers In Ifo Local Government

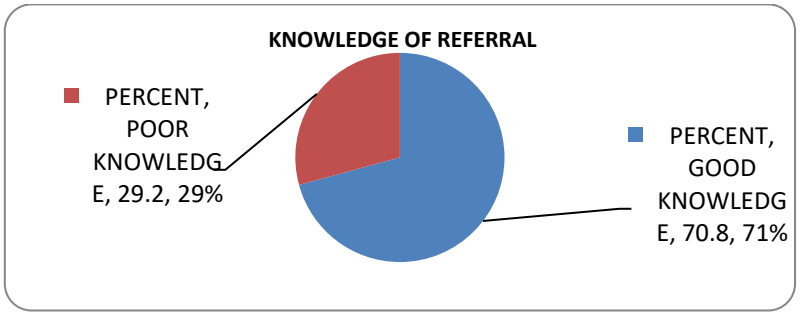

Table 3 Association between the Socio-Demographic Characteristics of Respondents and the Knowledge Of Referral among the Respondents

	Knowledge			
Variable	**Good**	**Poor**	**P-Value**	**Chi Square**
Age			0.087	0.993
Less than 25	16	6		
	72.7%	27.3%		
25 - 34	51	22		
	69.9%	30.1%		
35 - 44	45	18		
	71.4%	28.6%		
45 and above	26	11		
	70.3%	29.7%		
Sex			5.622	0.018
Male	43	28		
	60.6%	39.4%		
Female	95	29		
	76.6%	23.4%		
Education			0.179	0.914
Diploma	50	19		
	72.5%	27.5%		
First Degree	57	24		
	70.4%	29.6%		
Second Degree	31	14		
	68.9%	31.1%		
Cadre			29.267	0.000
Doctor	17	2		
	89.5%	10.5%		
Nurse	26	28		
	48.1%	51.9%		
CHW	69	10		

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	87.3%	12.7%		
Lab Tech	26	17		
	60.5%	39.5%		
Work experience			1.930	0.587
Less Than 5 Years	54	24		
	69.2%	30.8%		
5-9 Years	50	24		
	67.6%	32.4%		
10-14 Years	24	6		
	80.0%	20.0%		
15 And Above	10	3		
	76.9%	23.1%		
Marital Status			1.636	0.441
Single	20	9		
	69.0%	31.0%		
Married	106	46		
	69.7%	30.3%		
Previously Married	12	2		
	85.7%	14.3%		
Religion			0.614	0.433
Christianity	99	44		
	69.2%	30.8%		
Non Christianity	39	13		
	75.0%	25.0%		

The findings presented in Table 3 examine the association between the socio-demographic characteristics of respondents and their knowledge of referral practices in Ifo Local Government Area. The analysis reveals that age, level of education, years of work experience, marital status, and religion were not significantly associated with the level of knowledge regarding referral, as all recorded p-values exceeded the 0.05 level of significance. This suggests that these variables did not statistically influence whether respondents demonstrated good or poor knowledge of referral. However, significant associations were observed in relation to the sex and professional cadre of the respondents. With respect to sex, the chi-square analysis yielded a value of 5.622 with a p-value of 0.018, indicating a statistically significant relationship between sex and knowledge of referral. A closer look at the distribution shows that a greater proportion of female respondents (76.6%) exhibited good knowledge compared to their male counterparts (60.6%). This suggests that female health workers in the study area were more likely to possess adequate knowledge of referral processes than males. Similarly, the cadre of healthcare workers was significantly associated with referral knowledge, with a chi-square value of 29.267 and a p-value of 0.000. Among the cadres, doctors and community health workers (CHWs) demonstrated the highest levels of knowledge, with 89.5% and 87.3% respectively showing good knowledge. Conversely, nurses recorded the lowest proportion of good knowledge, with only 48.1%, and more than half of them (51.9%) demonstrating poor knowledge. Laboratory technicians fell in between, with 60.5% indicating good knowledge and 39.5% demonstrating poor knowledge.

Table 4. Availability of Referral Support Tools

Variable	Frequency	Percent
Availability of Stationary Materials to Initiate Referral		
Available	168	86.2
Unavailable	27	13.8
Motor Vehicle for Referral Purpose		

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Available	73	37.4
Unavailable	122	62.6
Referral Protocol Document that Clearly Explains Need and Step to the Patient		
Available	155	79.5
Unavailable	40	20.5
Health Worker to Follow or Monitor Referred Patient		
Available	156	80.0
Unavailable	39	20.0
Linkage Chart/Document with Referral Centre		
Available	126	64.6
Unavailable	69	35.4
Telephone/Map Directory for Referral Purpose		
Available	113	57.9
Unavailable	82	42.1
Feedback Mechanism from Receiving Facility		
Available	135	69.2
Unavailable	60	30.8

Table 4 provides a comprehensive overview of the availability of referral support tools among basic healthcare facilities in Ifo Local Government Area. The findings show that a majority of respondents, 86.2%, reported the availability of stationery materials required to initiate referrals, indicating that basic documentation tools are widely accessible across the facilities. However, a notable gap exists in transportation support, as only 37.4% of respondents confirmed the availability of a motor vehicle designated for referral purposes, while a significant 62.6% indicated its unavailability. This suggests that the lack of dedicated transport remains a considerable challenge to timely and effective referral processes. In terms of guiding documentation, 79.5% of the respondents reported the availability of a referral protocol document that clearly explains the need for referral and outlines the steps to be taken. This reflects a relatively strong presence of procedural guidelines in the system. Similarly, 80.0% of the healthcare workers indicated that there were personnel available to accompany or monitor referred patients, showing a considerable level of institutional support for follow-up and patient tracking during the referral process. Linkages between primary health facilities and referral centers also appeared moderately established, with 64.6% of the respondents affirming the availability of a linkage chart or document connecting their facility to higher-level care centers. Meanwhile, 57.9% reported having access to a telephone or map directory to facilitate communication and navigation during referrals, although 42.1% noted the absence of such tools, which may hinder swift coordination. Feedback from receiving facilities an essential component of two-way referral systems—was reportedly available to 69.2% of respondents.

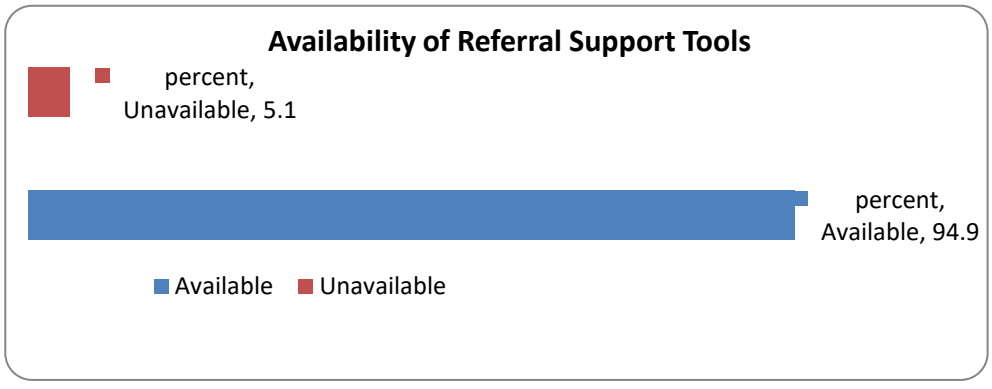

Figure 2 : Availability level of referral support tools among the respondents

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Figure 2 highlights the availability of referral support tools among basic healthcare workers in Ifo local government, Ogun state which reveals a 94.9% availability level while there is a 5.1% unavailability level. This depicts an extremely high level of availability of referral support tools among basic healthcare workers for the patients to utilize.

Table 5 Association between the Availability of Referral Support Tools and the Socio-Demographic Characteristics of the Respondents

	Availability			
Variable	**Good**	**Poor**	**P-Value**	**Chi Square**
Age			4.694	0.196
Less than 25	22	0		
	100.0%	0.0%		
25 - 34	71	2		
	97.3%	2.7%		
35 - 44	59	4		
	93.7%	6.3%		
45 and Above	33	4		
	89.2%	10.8%		
Sex			0.187	0.665
Male	68	3		
	95.8%	4.2%		
Female	117	7		
	94.4%	5.6%		
Education			3.409	0.182
Diploma	68	1		
	98.6%	1.4%		
First Degree	76	5		
	93.8%	6.2%		
Second Degree	41	4		
	91.1%	8.9%		
Cadre			2.733	0.435
Doctor	18	1		
	94.7%	5.3%		
Nurse	53	1		
	98.1%	1.9%		
CHW	75	4		
	94.9%	5.1%		
Lab Tech	39	4		
	90.7%	9.3%		
Work experience			5.557	0.135
Less than 5 Years	76	2		
	97.4%	2.6%		
5-9 Years	71	3		
	95.9%	4.1%		
10-14 Years	26	4		
	86.7%	13.3%		
15 and Above	12	1		
	92.3%	7.7%		
Marital Status			3.986	0.136
Single	29	0		
	100.0%	0.0%		

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Married	144	8		
	94.7%	5.3%		
Previously Married	12	2		
	85.7%	14.3%		
Religion			5.989	0.014
Christianity	139	4		
	97.2%	2.8%		
Non Christianity	46	6		
	88.5%	11.5%		

The analysis of the association between socio-demographic characteristics of respondents and the availability of referral support tools is presented in the table above. The results show that most socio-demographic variables, including age, sex, education level, professional cadre, years of experience, and marital status, were not significantly associated with the availability of referral tools, as their p-values exceeded the 0.05 threshold for statistical significance. For instance, while respondents across all age groups generally reported good availability of referral tools with 100% availability among those under 25 years and slightly lower percentages among older age groups the association between age and referral tool availability was not statistically significant ($p = 0.196$). Similarly, the distribution of availability across sexes showed minimal variation, with 95.8% of males and 94.4% of females reporting good availability; this difference was not significant ($p = 0.665$). In terms of education level, those with a diploma had the highest reported availability (98.6%), while those with a second degree reported slightly lower levels (91.1%), yet the differences were not statistically significant ($p = 0.182$). Cadre-wise, nurses had the highest proportion of respondents reporting good availability (98.1%), followed by community health workers (94.9%), doctors (94.7%), and laboratory technicians (90.7%). However, no significant association was found between cadre and availability ($p = 0.435$). A similar trend was observed for years of work experience, where newer workers with less than five years of service reported high availability (97.4%), but the association remained statistically insignificant ($p = 0.135$). Marital status also showed no significant association, although all single respondents reported good availability (100%), compared to 94.7% among married and 85.7% among previously married respondents ($p = 0.136$). Notably, religion was the only socio-demographic variable found to have a statistically significant association with the availability of referral support tools ($p = 0.014$). Among Christian respondents, 97.2% reported good availability, compared to 88.5% of those practicing other religions. This statistically significant difference suggests that religious affiliation may have some bearing on access to or perception of referral tool availability in the study context, possibly influenced by facility distribution, management practices, or community support networks.

Table 6 Problems Facing Referral Practices

Variable	Frequency	Percent
Health system issues		
Presence of problem	154	79.0
Absence of problem	41	21.0
Initiating facility		
Presence of problem	122	62.6
Absence of problem	73	37.4
Referral practitioners		
Presence of problem	84	43.1
Absence of problem	111	56.9
Receiving facility (distance and readiness)		
Presence of problem	149	76.4
Absence of problem	46	23.6
Supervision and capacity building		
Presence of problem	114	58.5

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Absence of problem	81	41.5
Continuous quality improvement		
Presence of problem	152	77.9
Absence of problem	43	22.1

The findings presented in Table 6 highlight the various systemic and institutional challenges affecting referral practices among basic healthcare workers in Ifo Local Government Area. The data reveal that a substantial proportion of respondents 79.0% identified problems within the health system itself as a major barrier to effective referral. This underscores the broader infrastructural and administrative deficiencies that compromise the efficiency and responsiveness of referral mechanisms. Further compounding the issue are challenges emanating from the initiating facility, with 62.6% of the respondents reporting that problems such as inadequate documentation, lack of standardized referral protocols, and limited support tools hinder the effective initiation of referrals. In contrast, 37.4% reported no such challenges, suggesting some variability in facility-level operations or resource availability. Issues related to referral practitioners those directly responsible for executing and facilitating the referral process were also noted, although to a lesser extent. While 43.1% of respondents acknowledged that problems such as lack of training, poor communication, or limited understanding of referral protocols exist among these professionals, a larger proportion of 56.9% indicated no practitioner-related challenges. This suggests that while human factors are a concern, they may be less pervasive compared to structural or institutional barriers. A particularly critical concern was the receiving facility's distance and state of readiness, with 76.4% of respondents citing it as a problem. This reflects the logistical challenges associated with reaching appropriate referral centers, particularly in settings where transportation and emergency preparedness are insufficient or delayed. Additionally, 58.5% of respondents identified weaknesses in supervision and capacity building as significant obstacles, pointing to a need for continuous mentoring, monitoring, and professional development to strengthen referral practices. Finally, challenges related to continuous quality improvement were reported by 77.9% of healthcare workers which indicates a prevailing absence of feedback systems, performance evaluation mechanisms, and policy enforcement structures that are critical for refining referral pathways and ensuring accountability

Figure 3 Problems Facing Referral Practice

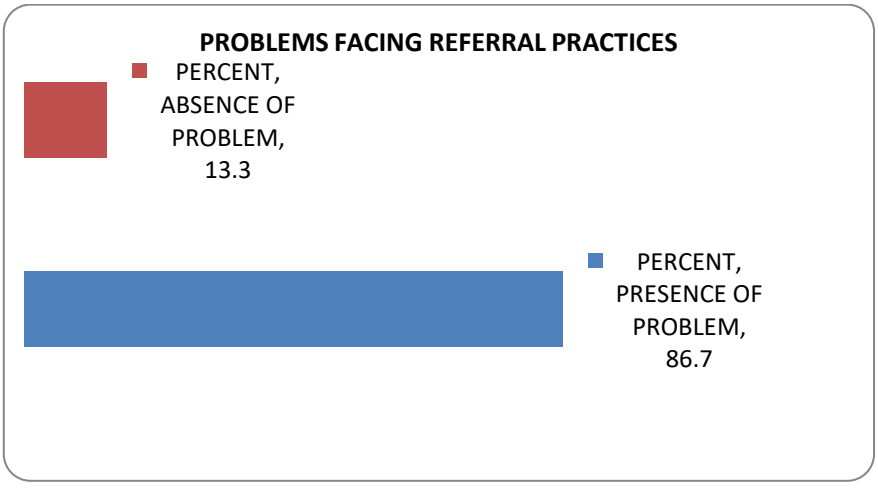

Figure 4 illustrates the problems facing referral practices among basic healthcare workers in Ifo local government, Ogun state. 86.7% admit that there are existing problems affecting or facing referral practices among basic healthcare workers. Whereas, just 13.3% do not find any problem affecting the use of referral practice for patients.

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Table 7: Association between the Problems Facing Referral Practice and the Socio-Demographic Characteristics among the Respondents

		Problems		
Variable	**Good**	**Poor**	**P-value**	**Chi square**
Age			4.907	0.179
Less than 25	21	1		
	95.5%	4.5%		
25 - 34	66	7		
	90.4%	9.6%		
35 - 44	53	10		
	84.1%	15.9%		
45 and above	29	8		
	78.4%	21.6%		
Sex			2.303	0.129
Male	65	6		
	91.5%	8.5%		
Female	104	20		
	83.9%	16.1%		
Education			5.255	0.072
Diploma	65	4		
	94.2%	5.8%		
First degree	67	14		
	82.7%	17.3%		
Second degree	37	8		
	82.2%	17.8%		
Cadre			5.223	0.156
Doctor	18	1		
	94.7%	5.3%		
Nurse	48	6		
	88.9%	11.1%		
CHW	70	9		
	88.6%	11.4%		
Lab tech	33	10		
	76.7%	23.3%		
Work			5.585	0.134
Less than 5 years	71	7		
	91.0%	9.0%		
5-9 years	61	13		
	82.4%	17.6%		
10-14 years	24	6		
	80.0%	20.0%		
15 and above	13	0		
	100.0%	0.0%		
Marital status			1.864	0.394
Single	27	2		
	93.1%	6.9%		
Married	131	21		
	86.2%	13.8%		
Previously married	11	3		

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	78.6%	21.4%		
Religion			.258	.611
Christianity	125	18		
	87.4%	12.6%		
Non Christianity	44	8		
	84.6%	15.4%		

The analysis of the association between socio-demographic characteristics of respondents and the problems faced in referral practices reveals no statistically significant relationships across the variables assessed, as all p-values exceed the 0.05 level of significance. However, nuanced patterns in the distribution of responses are worth noting. Age-related trends show that younger healthcare workers reported fewer problems with referral practices compared to their older counterparts. Specifically, 95.5% of respondents under 25 years reported good experiences with referral practices, whereas this figure declined progressively with age, dropping to 78.4% among those aged 45 years and above. Despite this gradient, the association between age and problems in referral practices was not statistically significant ($p = 0.179$), suggesting that age alone may not be a defining determinant of perceived referral challenges, though it may influence experiences due to differences in adaptability or institutional exposure. With respect to sex, a slightly higher proportion of male respondents (91.5%) reported having fewer problems with referral practices compared to their female counterparts (83.9%). Although this suggests a modest gender-based disparity in experiences or perceptions, it was not statistically significant ($p = 0.129$). This may reflect differences in roles or work environments that are not fully captured by gender alone. Education level showed a marginally stronger association with problems in referral practices ($p = 0.072$), though it still did not reach statistical significance. Respondents with diplomas reported fewer problems (94.2%) than those with first degrees (82.7%) and second degrees (82.2%). This may imply that more highly educated healthcare workers could be more critically aware of systemic gaps or may work in contexts where expectations of structured referral systems are higher, thus influencing their perception of challenges.

Professional cadre also showed no significant association ($p = 0.156$), although notable differences were evident. Doctors and nurses had relatively high rates of positive responses (94.7% and 88.9%, respectively), while laboratory technicians had the lowest proportion of respondents reporting good referral practices (76.7%). This could suggest that some cadres, especially those with indirect referral responsibilities, may face greater systemic barriers or experience less involvement in structured referral pathways. Regarding years of work experience, the results did not indicate any significant association with referral-related challenges ($p = 0.134$). Nonetheless, a pattern emerged showing that more recent entrants into the workforce reported fewer problems—91.0% among those with less than five years of experience—compared to those with longer durations of service. This may point to evolving institutional reforms, training standards, or workplace support that newer staff benefit from. Similarly, no significant associations were found between marital status ($p = 0.394$) or religion ($p = 0.611$) and problems in referral practices. However, respondents who were previously married reported the highest level of challenges (21.4%), compared to singles (6.9%) and those currently married (13.8%). Religion-based differences were minimal, with Christians (87.4%) and non-Christians (84.6%) reporting similar levels of perceived adequacy in referral practices.

Discussion of Findings

The findings of this study indicate a relatively high level of knowledge about referral practices among basic-level healthcare workers in Ifo Local Government Area of Ogun State. Specifically, 95.4% of respondents recognized referral as an integral aspect of patient care, and 71.3% correctly understood that standard referrals occur from lower to higher levels of healthcare. Although only 39.0% correctly identified the three-tier structure of Nigeria's healthcare system, the general level of knowledge suggests a promising awareness of referral dynamics at the primary care level. These results are comparable to the study by Talal and Aldeen (2020), which found that 95.6% of respondents demonstrated high familiarity with the referral process. In contrast, Oluseye et al. (2019) reported that

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only 9.1% of their respondents showed high knowledge of referrals, with a majority having only moderate understanding, suggesting variability in training exposure or geographic disparities in Nigeria.

A notable finding in this study is the significant association between sex (p=0.018) and professional cadre (p=0.000) with knowledge of referral practices. Female health workers and those in specific cadres—such as doctors and community health workers (CHWs) tended to demonstrate better understanding of referral protocols than their counterparts. This aligns with findings by Anyanwu et al. (2022), who also observed disparities in referral knowledge across professional groups and highlighted the need for cadre-specific in-service training to ensure uniformity in referral implementation across healthcare workers. On the availability of referral support tools, this study reveals a high overall availability rate (94.9%), with specific items such as stationary materials (86.2%), referral protocols (79.5%), and follow-up personnel (80.0%) being widely accessible. However, logistical gaps remain: only 37.4% of respondents indicated availability of vehicles for patient transport during referrals, and 57.9% had access to communication directories like telephones or referral maps. These findings resonate with Omole et al. (2017), who reported that while referral documentation is expected in Nigeria's health system, many facilities lacked standardized forms and communication tools, leading to poor referral continuity and fragmentation of care. Similarly, a study by Chukwuma et al. (2020) found that although referral guidelines existed in some settings, implementation was often hampered by logistical and human resource constraints. Interestingly, this study also found a statistically significant association between religion and the availability of referral tools (p=0.014), suggesting that cultural or religious influences may shape how health services are organized or accessed in certain communities. However, this finding warrants further investigation as such associations are not widely reported in existing literature. Regarding problems facing referral practices, this study identified several systemic and operational challenges. These include health system issues such as poor funding and delayed salary payments (79.0%), facility-level constraints like inadequate materials and ambulances (62.6%), and limitations at receiving facilities, including distance and readiness (76.4%). The influence of these factors is consistent with findings by Pedrana et al. (2019), who documented transportation barriers and limited inter-facility communication as key bottlenecks in Nigeria's referral pathways. Participants in their study also recommended stronger ambulance services, better equipment and drug supply, more trained staff, and clearer communication protocols as measures to improve referral outcomes. The presence of such challenges underscores the need for a comprehensive systems approach to strengthen Nigeria's referral system, including enhanced supervision, continuous quality improvement, and investment in feedback mechanisms between referring and receiving facilities. Studies by Ekman et al. (2021) and Awofeso (2019) have emphasized that without these systemic improvements, referral systems are unlikely to fulfill their purpose of bridging gaps across levels of care and ensuring timely and appropriate patient management.

Conclusion

This study examined the knowledge, availability of support tools, and challenges associated with referral practices among basic healthcare workers in Ifo Local Government Area, Ogun State, Nigeria. The findings revealed that while a majority of respondents demonstrated good knowledge of referral systems and had access to essential referral support tools, several systemic challenges continue to hinder the effectiveness of referral processes. Notably, significant associations were found between socio-demographic variables such as sex and cadre with the level of referral knowledge, and between religion and the availability of referral tools. These associations underscore the importance of context-specific strategies in improving referral practices. Although infrastructural components such as referral forms and protocol documents were largely available, gaps such as inadequate transport facilities and feedback mechanisms persist, reflecting broader weaknesses in health system coordination.

Furthermore, the study identified multiple problems impeding efficient referrals, ranging from poor health system financing and workforce constraints to the unpreparedness of receiving facilities. Addressing these challenges requires a multifaceted approach involving continuous training of healthcare workers, strengthened health facility linkages, improved supervision, and investment in

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referral infrastructure. Thus, enhancing the referral system at the primary healthcare level is crucial for improving patient outcomes and achieving effective health service delivery. Stakeholders and policymakers must prioritize reforms that promote a well-coordinated, adequately resourced, and patient-centered referral system within Nigeria's healthcare framework.

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