

Self-Referral and Its Predictors Among Patients Accessing Healthcare Services in A Tertiary Hospital, In Calabar, Cross River State, Nigeria

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Abstract

Classified as self and non-self-referrals, the ideal situation is that patients begin from lower levels of healthcare to higher levels. This improves the utilization of the primary care units, reduces unnecessary congestion of higher levels and makes for efficient healthcare delivery in general. This study aimed to assess the prevalence and predictors of self-referral among patients accessing healthcare in a tertiary hospital in Calabar, Nigeria. Ethical approval and informed consent were obtained. The study adopted quantitative data collection methods. This facility-based, cross-sectional study was carried out among 400 patients aged 18 years and above accessing care in the General Outpatient Clinic of the University of Calabar Teaching Hospital, Calabar in Cross River State. Overall, 191(47.8%) were males while 209(52.3%) were females. The mean age of study participants was 40.5±13.4 years, the most common age group was 31 to 40 years (28.2%). Prevalence of self-referral was 68.3%. Factors significantly associated with self-referral practices were sex ($p<0.001$), age group ($p<0.001$), marital status ($p<0.001$) and occupation ($p=0.006$). At multivariate regression analysis, females compared with males (OR: 5.299; 95% CI: 3.271 to 8.587), as well as those who were presently unmarried compared with those presently married (OR: 1.920; 95% CI: 1.052 to 3.505) were significantly more likely to practice self-referral. Self-referral practice is common and sex and marital status were identified as predictors. This is more so with unmarried females. Interventions to promote utilization and referral by healthcare providers through the prescribed channel is strongly recommended.

Keywords: Self-referral, Prevalence, Predictors, Healthcare, tertiary, Practice.

Introduction

The seamless transfer of patients between medical services forms the backbone of effective healthcare [1]. Emphasized by the World Health Organization (WHO), efficient referral systems are vital, seamlessly integrating with primary care units [2]. These systems coordinate patient care across healthcare facilities, allowing healthcare workers to transfer responsibility to

another professional when they are unable to provide necessary care [3]. Within this framework, referral methods can be self or non-self-initiated [4-8]. Self-referral behaviour in patients involves bypassing local primary healthcare units—the initial care points—to directly seek treatment from higher healthcare facilities [4-6]. Ideally, patients accessing tertiary healthcare centers have previously sought care at lower levels. Conversely, non-

self-referral occurs when a lower-level healthcare practitioner refers a patient to a higher facility using a formal referral note [7,8]. While formal referrals are crucial for managing complex medical cases at primary healthcare units, studies indicate an under-utilization of peripheral public health facilities, revealing a breakdown in the referral linkage [9,10]. Alarming, more than 50% of referrals are self-initiated, posing a growing concern for healthcare systems [11]. This trend challenges the gate-keeping function at the primary care level, designed to direct complex treatments to higher, costlier levels only for those truly in need [12]. The increasing prevalence of self-referral disrupts this system, highlighting the urgency to understand its prevalence and predictors within the context of tertiary healthcare facilities [12]. The understanding of the prevalence and determinants of self-referral among patients seeking healthcare in a tertiary hospital in Calabar remains limited, despite the availability of primary healthcare facilities. This leads to a concerning trend where patients opt for direct tertiary care, bypassing lower-level facilities. Comprehending the factors driving this behaviour is pivotal for optimizing healthcare resource allocation and enhancing the overall efficiency of healthcare system. Self-referral contributes to the overcrowding of tertiary hospitals, elevating patient waiting times and potentially compromising urgent care for those truly in need [13,14]. Additionally, it underutilizes primary healthcare facilities, resulting in increased healthcare expenses [7]. Although these issues are evident in the study area, they have not been formally investigated. Therefore, this study aims to not only gauge the awareness of referral practices but also evaluate the prevalence of self-referral and the factors influencing this practice among patients accessing care at the University of Calabar Teaching Hospital (UCTH). By assessing the prevalence and predictors of self-referral in this context, this research endeavours to bridge the existing knowledge gap, offering valuable

insights for policymakers and serving as a foundational reference for future studies in this domain. Identifying effective strategies to address self-referral could significantly improve healthcare utilization, reduce overcrowding in tertiary facilities, and optimize the use of primary healthcare resources in Calabar.

Methods

Cross River State, nestled within Nigeria's tropical rainforest belt, stands as one of the six states in the South-South geopolitical zone. Within its expanse are 18 Local Government Areas, including Calabar municipality, a vibrant segment lying between latitude 040 151 and 50 North and longitude 080 251 East. Embraced by the Odukpani Local Government Area to the North, the Quo River to the North-east, and bordered by the Calabar River and Calabar South Local Government Area to the South, it spans 331.551 square kilometers and sustains a population of approximately 183,681 individuals [16]. Calabar municipality is rich in diversity, housing primarily two indigenous ethnic groups—the Quos and the Efiks. However, its cosmopolitan allure attracts people from across the state and Nigeria, shaping a vibrant community. The varied occupational groups include civil servants, entrepreneurs, farmers, traders, and fishermen. The study took place within the General Outpatient Clinic of the UCTH in Calabar. Conducted as a facility-based cross-sectional study, it engaged 394 patients aged 18 years and above seeking care in the outpatient clinics of the UCTH.

Patients aged 18 years and above accessing care in the outpatient clinics of the UCTH who gave informed consent were included.

The determination of the sample size followed the Cochrane formula for estimating a single proportion. Utilizing a reported self-referral prevalence of 63.9% by Abere et al [14], the survey's sample size was computed using the formula:

$$n = \frac{z^2 pq}{d^2}$$

where n represents the sample size, z denotes the standard normal deviation set at 1.96 for a 95% confidence limit, P signifies the self-referral prevalence of 63.9%, q is the complement of P calculated as $1 - P = 1 - 0.639 = 0.361$, and d represents the error margin of 5%. This computation yielded an approximate sample size of 400, with an additional 10% accounted for to accommodate potential non-responses. A systematic sampling technique was used to recruit study participants. The independent variables were socio-demographic characteristics (sex, age, educational level, occupation, marital status and area of residence) and individual characteristics (knowledge about the referral system, perceived severity of illness and perceived treatment at the tertiary hospital is better). Structured and pretested interviewer-administered questionnaires were developed in English by reviewing different relevant literatures in line with the study specific objectives.

The questionnaire consists of socio-demographic, individual and institutional characteristics. Data was collected via interview before obtaining healthcare service in the out-patient waiting area.

A total of four resident doctors were trained as research assistants during a two-day training period. Training focused on the objectives of the study as well as ethical issues such as confidentiality and the consent taking process. Prior to the commencement of the study, a pilot study was conducted where the study tool was pretested (to check for consistency of responses) among adult patients accessing care in General Hospital, During the study period, filled questionnaires were checked every day by the supervisor and every week by the principal investigator for completeness and consistency.

All necessary corrections were made on the questionnaire before the data collection starts.

Data collected was coded and entered into Statistical Package for Social Sciences (SPSS) version 25.0 for cleaning and analysis. Descriptive statistics (frequency, percentage, SD and mean) was employed to summarize the variables. Binary logistic regression analysis was employed to see the relationship between dependent (self-referral) and the independent variables such as socio-demographic and institutional characteristics as well as knowledge of referral practice. Variables that showed significant association during bivariate analysis were subjected to binary logistic regression to determine predictors of self-referral practice among study participants. Level of significance was 5% and Confidence Interval was 95%. Those variables whose p -value were less than 0.05 were considered as statistically significant.

Before the study began, full ethical approval was obtained from the Health Research Ethics Committee of Cross River State Ministry of Health (REC No: CRSMOH/RP/REC/2022/353). Informed consent was obtained from study participants before inclusion in the study and permissions obtained from the Head of the General Out-Patient Department.

Results

Table 1 shows the socio-demographic characteristics of study participants. A total of 400 adults participated in the study, out of which 191(47.8%) were males while 209(52.3%) were females. Their mean age was 40.5 ± 13.4 years, the most common age group was 31 to 40 years age group which accounted for 28.2%, More than half (64.5%) were married, and attained tertiary education (63.7%), 34.0% were civil servants and 87.3% resided in urban areas.

Table 1. Socio-demographic Characteristics of Study Participants (N=400)

Variable	Frequency	Percentage
Sex		
Male	191	47.8
Female	209	52.3
Age group/years		
≥20	12	3.0
21-30	98	24.5
31-40	113	28.2
41-50	90	22.5
51-60	43	10.8
>60	44	11.0
Mean age ±SD	40.5±13.4 years	
Marital status		
Single	134	33.5
Married	258	64.5
Divorced	4	1.0
Widowed	4	1.0
Highest education		
Primary	35	8.8
Secondary	110	27.5
Tertiary	255	63.7
Occupation		
Student	43	10.8
Applicant	32	8.0
Business	125	31.3
Civil servant	136	34.0
Others	40	10.0
Pensioner	24	6.0
Residence		
Rural	51	12.8
Urban	349	87.3

Figure 1 shows that the prevalence of self-referral among individuals assessing healthcare

services in University of Calabar Teaching Hospital was 68.3%.

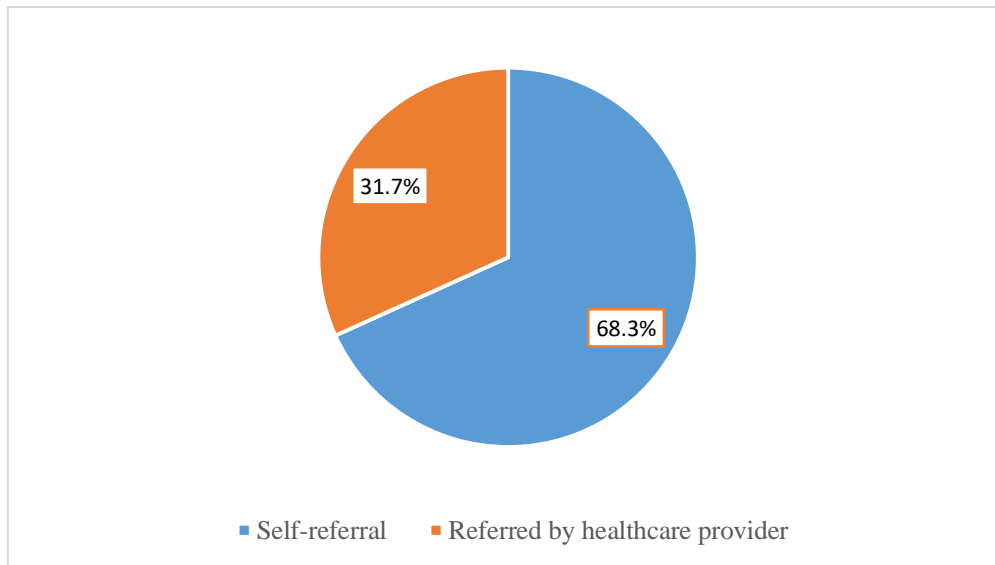


Figure 1. Prevalence of Self-referral among Clients in University of Calabar Teaching Hospital

As shown in table 2, females accounted for a higher proportion of those who practiced self-referral compared with males (85.2% versus 49.7%), and the difference was statistically significant ($p < 0.001$). Also, those in the highest

age group significantly accounted for the highest proportion of those on self-referral ($p < 0.001$). Similarly, self-referral practice significantly varied with marital status ($p < 0.001$) and occupation ($p = 0.06$).

Table 2. Relationship between Socio-demographic Characteristics and Self-referral among Study Participants

Self-referral					
Variable	Yes	No	Total	Chi square test	p-value
	n=273	n=127	N=400		
Sex					
Male	95(49.7)	96(50.3)	191(100.0)	57.809	<0.001*
Female	178(85.2)	31(14.8)	209(100.0)		
Age group/years					
≥20	8(66.7)	4(33.3)	12(100.0)	FET, 25.155	<0.001*
21-30	74(75.5)	24(24.5)	98(100.0)		
31-40	61(54.0)	52(46.0)	113(100.0)		
41-50	59(65.6)	31(34.4)	90(100.0)		
51-60	31(72.1)	12(27.9)	43(100.0)		
≥61	40(90.9)	4(9.1)	44(100.0)		
Marital status					
Single	82(61.2)	52(38.8)	134(100.0)	FET, 22.044	<0.001*
Married	191(74.0)	67(26.0)	258(100.0)		
Divorced	0(0.0)	4(100.0)	4(100.0)		
Widowed	0(0.0)	4(100.0)	4(100.0)		
Highest education					
Primary	23(65.7)	12(34.3)	35(100.0)	5.355	0.069
Secondary	66(60.0)	44(40.0)	110(100.0)		
Tertiary	184(72.2)	71(27.8)	255(100.0)		

Occupation					
Student	31(72.1)	12(27.9)	43(100.0)	16.153	0.006*
Applicant	16(50.0)	16(50.0)	32(100.0)		
Business	85(68.0)	40(32.0)	125(100.0)		
Civil/public servant	101(74.3)	35(25.7)	136(100.0)		
Others**	20(50.0)	20(50.0)	40(100.0)		
Pensioner	20(83.3)	4(16.7)	24(100.0)		
Residence					
Rural	35(68.6)	16(31.4)	51(100.0)	0.004	0.951
Urban	238(68.2)	111(31.8)	349(100.0)		

*=statistically significant; others** include full time housewife, selling for someone, artisan

Table 3 shows that females in comparison with males (OR: 5.299; 95% CI: 3.271 to 8.587), and those presently unmarried compared with those presently married (OR: 1.920; 95% CI: 1.052 to 3.505) were significantly more likely to practice self-referral.

Table 3. Binary logistic regression of predictors of self-referral among study participants

Variable	Odds ratio	Confidence Interval	p-value
Sex			
Male	5.299	3.271 – 8.587	<0.001*
Female	1		
Age group/years			
<40	1.556	0.889 – 2.722	0.121
≥40	1		
Present marital status			
Married	1.920	1.052 – 3.505	0.033*
Not married	1		
Presently working			
Working	1.198	0.718 – 1.997	0.489
Not working	1		

Discussion

The investigation into self-referral prevalence among individuals seeking healthcare services plays a pivotal role in understanding patient behaviours within healthcare systems. In this study, our primary objectives centered around delineating the prevalence of self-referrals (a multi-faceted phenomenon) and identifying key predictors among patients accessing healthcare services within the University of Calabar.

By examining the prevalence rates of self-referrals, we sought to unravel the extent to which patients opt for this route when accessing healthcare services within the University of

Calabar. Moreover, the identification of predictors associated with self-referrals presents an opportunity to discern the factors influencing patients' decisions to bypass the traditional referral pathway.

Prevalence of Self-referrals among Patients Accessing Healthcare Service

The current study revealed a self-referral prevalence of 68.3% among participants accessing healthcare services at UCTH, a figure closely resembling the 67% found in Hadiya zone, Ethiopia [16]. This aligns with a spectrum of prevalence rates reported in diverse studies, ranging from 27.7% to 60.0% across distinct

healthcare settings and geographic locations [8,14]. The current study findings closely resonate with previous studies. For instance, Eritero et al. identified a prevalence of 65.6% [11], while Abere et al. documented a prevalence of 63.9% [14], both falling within the range observed in our study. However, contrasting results were also noted in prior research. Eshetie et al. reported a prevalence of 45.6% [17], Adojo et al. found 47.2% [18], and Kruk et al. identified 41.8% [19], all indicating lower prevalence rates than what our study uncovered. Possible reasons for similarities across some studies might include shared healthcare challenges such as perceptions of service quality, access issues, or patient preferences for specific healthcare services. In comparable studies slightly lower rates may be attributed to contextual factors, including differing demographics, health concerns motivating self-referrals (such as malaria in one study), and specific healthcare service preferences [8]. In another work, the nuances in healthcare infrastructure, cultural perceptions of healthcare quality, and patient attitudes may contribute to divergences. Yet, a recent study investigating self-referral practices among women delivering in primary hospitals within the South Gondar zone, Northwest Ethiopia, reported a self-referral prevalence of 45.6% [18].

Contrastingly, some studies have shown notably lower prevalence. This may be explained in part by dissimilar methodologies, differing healthcare system structures, or variations in patient preferences including gender differences within their study population [7,16,20].

Understanding these disparities sheds light on the complex interplay of factors influencing self-referral practices, urging further exploration into context-specific determinants and interventions aimed at optimizing healthcare access and delivery. This clarity could guide healthcare policies and interventions aimed at improving healthcare delivery systems. Tailoring interventions to address specific determinants

influencing self-referral behaviours in different contexts could enhance the efficiency of healthcare systems, optimize resource allocation, and ultimately improve patient outcomes.

Predictors of Self-referrals among Patients Accessing Healthcare Service

The current study highlighted a notable gender discrepancy in self-referral practices, with a significantly higher percentage of females (85.2%) opting for self-referral compared to males (49.7%). This is a shared finding of a previous study [8]. Age played a significant role, showing a clear increase in self-referral tendencies with advancing age ($p < 0.001$). Additionally, marital status and occupation correlated significantly with self-referral behaviour, notably favouring married individuals ($p < 0.001$) and pensioners ($p = 0.001\%$).

The association between marital status and self-referral practices aligns with findings from previous studies [6,8,9,11,20]. In both the current study and prior research, being unmarried or presently not in a marital union was associated with a higher likelihood of engaging in self-referral, suggesting that marital status might influence healthcare-seeking behaviours universally.

The drivers or predictors of self-referral varied across studies. The current study highlighted factors like gender, marital status, and occupation as drivers of self-referral. This finding is in consonance with that of some previous studies also found gender to be a driver of self-referral practice. Previous research pointed towards different determinants such as availability of medication, quality of care, perception of healthcare providers' competence, and awareness of referral systems [7,11,14,20]. These disparities may reflect diverse healthcare settings, cultural nuances, or healthcare service priorities in different regions. Disparities in healthcare infrastructure, access, and cultural influences across different regions might explain

the differences in findings. Contextual factors like healthcare resource availability, cultural norms, and healthcare system structures could influence how patients navigate healthcare services.

The functioning of healthcare systems, availability of resources, quality of care, and patient-provider interactions can significantly influence patient behaviours. Variations in these factors across different healthcare settings might account for the differences in findings regarding predictors of self-referral.

Understanding these similarities and differences offers valuable insights into the complex interplay of factors influencing self-referral practices. Highlighting these nuances provides a comprehensive view of the multifaceted nature of self-referral and underscores the importance of considering context-specific determinants when addressing healthcare utilization behaviours.

Recommendations

Government should Enhance Primary Care Access

Strengthening primary care services by improving accessibility, quality, and responsiveness can potentially reduce the need for self-referral to higher-level healthcare facilities.

This approach involves ensuring timely appointments, comprehensive services, and effective communication between primary care providers and patients.

Patient Education and Awareness by Healthcare Workers

Implementing targeted educational programs to inform patients about the benefits of utilizing primary care services and the appropriate pathways for seeking specialized care. This could involve continually raising awareness about the role of primary care in managing health conditions and guiding patients on when to seek specialized care.

Health System Integration by Government

Introducing strategies that foster integration and collaboration between primary and secondary/tertiary healthcare facilities. This includes establishing clear referral pathways, facilitating information exchange between providers, and ensuring a continuum of care for patients transitioning between different levels of the healthcare system.

Addressing Quality of Care Concerns by Healthcare Workers and Government

Improving the quality of care in primary healthcare settings by addressing issues related to healthcare worker attitudes, waiting times, service provision, and patient satisfaction. Emphasizing patient-centered care and enhancing the overall patient experience can mitigate the inclination for self-referral.

Community Engagement and Cultural Sensitivity

Engaging communities to understand their healthcare needs, preferences, and cultural beliefs. Tailoring healthcare services to align with these needs and sensitivities can encourage trust in primary care services, potentially reducing self-referral rates influenced by cultural perceptions.

Conclusion

The study found that more than half of patients accessing healthcare to the tertiary healthcare facility come on self-referral. Socio-demographic predictors of self-referral to tertiary healthcare facilities includes sex and marital status.

Conflict of Interest Statement

The authors declare that they have no competing interests.

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