

Research Article

Utilization and Barriers to Dental Services in Primary Health Care Clinics in Katsina State, Nigeria

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Abstract

There are various barriers that limit the utilization of dental services in primary health care clinics globally. Utilization of dental services in primary health care centers clinics in Katsina State Nigeria is low, and there is a lack of awareness about the importance of dental care among the population. Identifying barriers and factors influencing utilization is crucial to improving access to dental services and enhancing oral health outcomes. This study aimed to assess the utilization of dental services and identify barriers to access in primary health care centers in Katsina, Nigeria. The study employed a descriptive cross-sectional design, the study used the sample size of 336 respondents to represent the entire population, which comprised of 2,785 people. The data were analyzed using Frequency distributions and percentages. The study revealed that 70% of the respondents had not utilized dental services in primary health care centers. Lack of awareness about the importance of dental care was reported by 70% of the respondents, indicating a need for public awareness campaigns. Furthermore, primary health care centers missed opportunities to provide dental health education to the population. Factors influencing utilization, including affordability, proximity, quality, availability, and trust, were identified. Quality disparities in dental service provision were also observed. The study highlights the need for comprehensive efforts to increase awareness about the importance of dental care and improve the availability and quality of dental services in primary health care centers in Katsina. Targeted interventions, including public awareness campaigns, educational programs, training for health care providers, and affordability measures, are recommended to enhance utilization rates and overall oral health in the region. Collaboration among stakeholders is crucial to successfully implement these recommendations and address the identified barriers to dental service utilization.

1. Introduction

Good oral health is concurrent with the systematic use of dental health services, indicating that ensuring the general public can access preventive dental care is critical. It enables the early assessment of risk factors and normative needs, the primary prevention of caries through evidence-based preventive strategies, and the early diagnosis and treatment of dental problems [1].

Over the past seven decades, there has been tremendous improvement in dental health clinical indicators in most Western countries. However, the burden of oral disease remains a significant public health problem in underdeveloped and developing nations [2].

In a 2003 report on global oral health, it was emphasized that oral diseases have a significant impact on individuals and communities, leading to pain, suffering, functional impairment, and reduced quality of life. Therefore, maintaining good oral health is crucial [3]. Knowledge about utilization of dental services in Nigeria is inadequate and only a very small proportion of the population visit dentists on a regular basis as suggested by the few existing literatures and anecdotal reports [3]. Report shows that 7.8% of students from Obafemi Awolowo University utilized dental care within the previous 12 months in 2001 [4]. Also another report indicates that 14.9% among students of the University from Lagos in 2007 [5]. This current study will provide more information on the barriers people face in seeking dental care towards utilizing the dental services in the Nigerian state of Katsina. General vis-à-vis directing efforts to improve access to dental care services in same environments.

However, a study conducted in Japan among elderly populations reported that dental care cost alone was not a significant barrier, as most of the dental care for older adults was covered with universal health insurance and other issues such as transport, lack of perceived need for care and fear were found to be barriers for dental visits [6].

Various restrictions can lead to delays in seeking dental treatment, preventing patients from getting the care they need. Fear of dental interventions, lack of time and lack of awareness about the need for dental examinations [7]. Reducing inequality in access and utilization of health services is an important goal of health systems. Although full equality in the utilization of these services is impossible, policymakers can design and implement interventions to reduce these inequalities [8].

The access to dental care includes both the availability of services and the desire of the patient to seek the care. Access to and utilization of dental care services are multidimensional principles which are affected by many factors [9].

Previous studies have identified various barriers that hinder people from accessing professional dental care in primary healthcare settings, including the cost, fear, accessibility, availability of services, and characteristics of dentists. Previous studies have shown that there are barriers that need to be surmounted in order to help people get the needed professional dental care in the primary health care. A study in 2008 reported that the main barriers to dental care include cost of dental treatment, fear of dental treatment, accessibility of dental services, availability of dental services, and characteristics of the dentist [3].

According to a systematic review conducted, there are various barriers that limit the utilization of dental services in primary health care clinics globally [10]. These barriers include financial constraints, lack of awareness, cultural barriers, shortage of dental professionals, and limited resources. In a study conducted in Pakistan, the major barriers to dental service utilization in primary health care clinics were found to be lack of awareness and education, unavailability of dental professionals, and financial constraints. Similar barriers were also reported in other Asian countries like India and Bangladesh [11]. In a cross-sectional study conducted in sub-Saharan African countries, the major barriers to dental service utilization in primary health care clinics were found to be lack of dental professionals, poor infrastructure, and limited resources. Cultural beliefs and practices were also identified as significant barriers to dental service utilization.

In Nigeria, there is a lack of knowledge about the utilization of dental services, and only a small percentage of the population seeks regular dental care based on existing literature and anecdotal reports (World Oral Health Report, 2003). Similarly, utilization rate of 14.9% among students from the University of Lagos [5]. According to a study conducted state the major barriers to dental service utilization in Nigeria were found to be lack of awareness, financial constraints, and shortage of dental professionals. Poor infrastructure and limited resources were also identified as significant barriers. A study conducted in Katsina state, Nigeria reported that the major barriers to dental service utilization in primary health care clinics were lack of awareness and education, unavailability of dental professionals, and financial constraints. Additionally, poor infrastructure, limited resources, and cultural beliefs were also identified as significant barriers. To address this issue and improve access to dental care services in similar settings, it is important to understand the barriers people face when seeking dental care [2]. Therefore, the current study aims to investigate the utilization of dental services and identify barriers in primary healthcare centers in the Nigerian state of Katsina [3].

2. Methodology

2.1. Study Area, Design, Population and Sample Size

The study was conducted in Katsina State, Nigeria. The research is centered on 15 selected primary health care centers (PHCs) located in various local government areas (LGAs) within the state. The selected health care centers include Batagarawa PHC, Katsina 4 main PHCs in the metropolis, Daura CPHC, Jibia PHC, Rimi PHC, Baure PHC, Zango PHC, Funtua PHC, Dandume PHC, Faskari PHC, Mashi PHC, and Mani PHC. The state currently has 34 local governments. Cross-sectional design was used. The study population is all the dental patients attending 15 PHCs selected from 15 local government areas approximately 2785 patients from the selected PHCs in the various 15 LGAs Katsina State, Nigeria. Furthermore the sample size of 336 using Yamane's formula with the best margin error and confidence level was used and the main 4 PHC in the metropolis of katsina state 25 copies of questionnaires were distributed to each while 21 copies of the questionnaires are distributed to each of the remaining 11 PHCs which the study used.

$$n = (N * p * (1-p)) / (E^2 * (N-1) + p * (1-p))$$

$$n = (2785 * 0.5 * (1-0.5)) / (0.05^2 * (2785-1) + 0.5 * (1-0.5))$$

$$n \approx 336.$$

2.2. Sampling Technique

The study adopted Purposive sampling techniques which involves deliberately selecting participants based on specific criteria that align with the research objectives. This approach is often used in qualitative research or when studying a particular subgroup.

2.3. Data collection method, management and analysis

Data Collection Process: The data collectors visited the selected primary healthcare centers and approach potential participants (patients) to request their participation in the study. A structured questionnaire was developed based on the study's research objectives and specific research questions. The questionnaire include questions related to utilization patterns of dental services, barriers to access, sociocultural factors, financial constraints, and availability and accessibility of dental services. Descriptive statistics was used to summarize and describe the characteristics of the study sample and the variables of interest. The data was analyzed using excel sheet for the Frequency distributions and percentages.

2.4. Ethical Consideration

Ethical approval obtained from the Primary Care Development Agency in Katsina State, Nigeria, the research study was completed while adhering to several important ethical considerations. These considerations were essential to ensure that the rights, well-being, and confidentiality of the study participants were protected throughout the research process. Here are the ethical considerations based on the provided information.

3. Results

The total of 336 questionnaires was used for the study across the population to collect data on the barriers for effect utilization of dental services attending the 15 PHCs in the study area. Thirty six (36) questionnaires representing 10.71% out of the 336 questionnaires distributed were not retrieved.

Table 1: Demographic Characteristics of the Patients.

Option	Frequency	Percentages
Ages		
18-27	84	28%
28-37	108	36%
38-47	48	16%
48-57	48	16%
58-67	12	4%
Sex		
Male	210	70%
Female	90	30%
Marital status		
Single	42	14%
Married	186	62%
Divorce	72	24%
Educational qualification		
None	42	14%
S.S.C.E	21	7%
Tertiary	32	10%
Undergraduate	152	51%
Postgraduate	53	17%
Nature of employment		
Self-employment	182	61%
Employed	118	39%
Total	300	100%

Table 1: shows that the majority of the respondents are male, comprising approximately 70% of the total, while females constitute around 30% of the total respondents. The age distribution of respondents in different class intervals. The age intervals are categorized as follows: **18-27** there are 84 respondents in this age range, accounting for 28% of the total. **28-37**: The age range of 28-37 includes 108 respondents, making up 36% of the total. **38-47**: Within the age interval of 38-47, there are 48 respondents, contributing to 16% of the total. **48-57**: Similarly, the age range of 48-57 also consists of 48 respondents, representing 16% of the total. **58-67**: The age interval of 58-67 has the smallest number of respondents with 12 individuals, comprising 4% of the total. 38 respondents are single, which accounts for approximately 13% of the total. 142 respondents are married, making up approximately 47% of the total. 70 respondents are divorced, comprising approximately 23% of the total. 40 respondents have no formal education, which accounts for approximately 13% of the total. 24 respondents have S.S.C.E (Senior Secondary Certificate Examination), making up approximately 8% of the total. 32 respondents have a tertiary education, comprising approximately 11% of the total. 152 respondents are undergraduates, representing approximately 51% of the total. 52 respondents have a postgraduate degree, representing approximately 17% of the total. 182 respondents are self-employed, which accounts for approximately 61% of the total. 118 respondents are employed, making up approximately 39% of the total.

Table 2: Visitation to Primary Health Care Center for Dental Services.

Option	Frequency	Percentages
Visit to PHC for Dental Services		
No	210	70%
Yes	90	30%
Total	300	100%
Awareness on the importance of dental care to prevent dental diseases		
No	210	70%
Yes	90	30%
Total	300	100%
PHC provide information on dental diseases prevention in Katsina		
No	210	70%
Yes	90	30%
Are you satisfied with information provided		
Very Satisfied	60	20%
Neutral	60	20%
Dissatisfied	180	60%
Improvement of dental services in PHC		
Awareness of community for seeking dental care services at the level first.	90	30%
Community mobilization on dental care services at the PHCS	210	70%
Total	300	100%

Table 2: shows that 70% of our respondents have never visited a primary health care center for dental services, while 30% of our respondents have in some time past visited a primary health care centre for dental service. This clearly states that most of our respondents have never visited a health clinic for dental service. Seventy percent (70%) of our respondents are not aware of the importance of dental care in preventing dental disease, disabilities and suffering, while 30% of our respondents are aware of the importance of dental care in preventing dental disease, disabilities and suffering. Which simply implies that most of our respondents do not know the importance of dental care, Seventy percent 70% of our respondents states primary health care centers in Katsina do not provide information and education on dental disease prevention, while 30% state that states primary health care centers in Katsina provide information and education on dental disease prevention. This simply implies that most Primary Care centers do not enlighten patients on the importance of dental care in disease prevention. Twenty percent (20%) are Very Satisfied the information provided by dentist in Katsina Primary Health Care, 20% are neutral to the fact where they are or not satisfied with the information provided by dentist in Katsina Primary Health Care, while 60% of the respondents states they are dissatisfied with the information provided by dentist in Katsina Primary Health Care. From the information provided by the respondents above it is clear that 70% of the respondents claim they were not provided with information on dental disease prevention. 30% of our respondents, states that creating awareness of community for seeking dental care services at the level first can be a way to improve dental disease prevention effort at primary health care centres, while 70% states that community mobilization on dental care services at the Primary Health Care Centres can be a means of improving dental disease prevention effort at primary health care centres.

Table 3: Factors affecting Utilization of Dental Services.

Option	Frequency	Percentages
Factors that influence the use of dental services		
Affordability	30	10%
Proximity	60	20%
Quality Of Care	30	10%
Availability Of Services	90	30%
Trust In Health Care Providers	90	30%
Other	0	0%
Quality of dental services in PHC		
Excellent	15	5%
Good	90	30%
Average	90	30%
Poor	90	30%
Very Poor	15	5%
Total	300	100%
Dental services at PHC enhance the quality of life for individuals		
No	90	30%
Yes	210	70%
Barriers to the provision of dental services in PHC		
Lack of funding	30	10%
Lack of trained personnel	60	20%
Lack of equipment	30	10%
Lack of public awareness	150	50%
Other	15	5%
All of the above	15	5%
Total	300	100%

Table 3: shows that 10% of the respondents, consider "Affordability" as an essential factor in health care services, 20% of the respondents value "Proximity" to health care services, 10% of the respondents prioritize "Quality of Care" in health services, 30% of the respondents emphasize "Availability of Services" in health care while 30% of the respondents value "Trust in Health Care Providers" as a crucial aspect. 5% of the respondents rated their view as "Excellent.", 30% of the respondents rated their view as "Good.", 30% of the respondents rated their view as "Average.", 30% of the respondents rated their view as "Poor." While of the respondents 5%, rated their view as "Very Poor." 30% of the respondents answered "No." while 70% of the respondents answered "Yes." 10% of the respondents identified "Lack of Funding" as a major barrier, 20% of the respondents identified "Lack of Trained Personnel" as a major barrier, 10% of the respondents identified "Lack of Equipment" as a major barrier, 50% of the respondents identified "Lack of Public Awareness" as a major barrier while 5% of the respondents chose "Other" as a major barrier (Note: The specific details of the "Other" category are not provided). 5% of the respondents selected "All of the above" as major barriers.

4. Discussions

The results showed the utilization of dental services in primary health care centers in Katsina and focus on the various aspects, including respondents' demographics, awareness and utilization of dental services, factors influencing their decisions, and barriers to the provision of dental services.

The study examined whether respondents had ever visited a primary health care center for dental services. Approximately 70% of the respondents answered "No"; they refused to attend dental services due to their inadequate per capita income. This is in line with [12], that Income level, education, and employment status can impact access to dental services. Individuals with lower socioeconomic status often face financial barriers, lack of dental insurance, and limited awareness of oral health services.

The study assessed respondents' awareness of the importance of dental care in preventing dental diseases, disabilities, and suffering. Surprisingly, 70% of the respondents were not aware, while only 30% expressed awareness. This suggests a lack of public knowledge about the significance of dental care, which may contribute to low utilization of dental services. Strategies for educating patients on oral hygiene, diet, and oral health maintenance, this relate to [2], that poor utilization of dental service by the respondents could be due to poor awareness, absence of dental insurance, financial constraints, lack of perceived need for dental care, economic difficulties, socio-demographic factors such as age, sex, educational attainment, and household income. Effort needs to be applied to create better awareness and possibly increase dental clinic attendance. Emphasis should be placed on benefits of utilizing preventive dental services rather than only curative through dental awareness programs. Effective patient education strategies are essential for promoting oral health in primary healthcare clinics. Strategies may include providing personalized oral hygiene instructions, demonstrating proper brushing and flossing techniques, discussing the importance of a healthy diet for oral health, and raising awareness about the effects of tobacco and alcohol on oral health. Using visual aids, pamphlets, and educational videos can enhance patient understanding and engagement [13].

Among respondents who were aware of the importance of dental care, the study explored whether primary health care centers provide information and education on dental disease prevention. Unfortunately, 70% of the respondents reported that no such information was provided. This indicates a missed opportunity for promoting preventive dental care and increasing awareness among the population.

Understanding oral health information, including the importance of preventive care and oral hygiene practices, influences individuals' decision-making regarding dental care. Language barriers and cultural differences can hinder effective communication and understanding of oral health information and services [14].

The study investigated the factors that influence respondents' decisions to utilize dental services at primary health care centers. The key factors identified were affordability, proximity to health care centers, quality of care, availability of services, and trust in health care providers. Understanding these factors can help health authorities tailor strategies to improve utilization rates.

Children may experience disparities due to factors such as lack of dental insurance, parental knowledge and attitudes, and availability of pediatric dental providers [15].

The study examined respondents' views on the quality of dental services provided at primary health care centers. The responses varied, with some indicating satisfaction (e.g., good and excellent), while others expressed dissatisfaction (e.g., poor and very poor). This finding emphasizes the need for continuous quality improvement efforts in dental service provision and support health is essential for individuals to maintain proper nutrition, speak clearly, and contribute to their overall well-being. It affects various aspects of daily life, including social interactions, self-esteem, and quality of life. Furthermore, oral health is closely linked to general health conditions. Poor oral health has been associated with an increased risk of various systemic diseases such as cardiovascular disease, diabetes, respiratory infections, and adverse pregnancy outcomes. Thus, addressing dental health is an integral part of comprehensive primary healthcare [16].

The study identified several barriers to the provision of dental services in primary health care centers, including lack of funding, trained personnel, equipment, and public awareness. These barriers pose challenges to the effective delivery of dental services and call for targeted interventions. Financial constraints in dental care refer to the economic barriers that individuals face when seeking dental services, this is similar to [17]. These constraints can include factors such as the high cost of dental treatments, limited insurance coverage, lack of financial resources, and affordability issues for individuals and families.

5. Conclusion

The study focused on understanding the utilization of dental service, the study found that there is a need for comprehensive efforts to increase awareness about the importance of dental care and improve the availability and quality of dental services in primary health care centers. By addressing the identified factors influencing utilization and providing adequate education, health authorities can enhance the population's utilization of dental services, leading to improved oral health outcomes.

Recommendations

Based on the conclusions drawn from the study on the utilization of dental services in primary health care centers in Katsina, recommendations were made to improve the situation;

Public Awareness Campaigns should be Launch to target and sustained public awareness campaigns to educate the population about the importance of oral health and regular dental check-ups. Education and Information Dissemination, Training for Health Care Providers, Improving Access to Dental Services and Collaboration with Dental Specialists Should be place in practice to in order to draw the attention of people to effective dental care and utilization of dental resources.

Article Information

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