Assessment of Availability and Access to Healthcare Service Facility in Federal University Gashua School Clinic, Yobe State, Nigeria

Hussaini Ibn Mohammed[1], Hudu Alhaji Abubakar[2], Auwal Mohammed[3]

[1, 2, 3] Federal University Gashua, Yobe State, Nigeria

ABSTRACT

This study examined the availability and access to healthcare services at the Federal University Gashua School Clinic, focusing on the adequacy of medicines, healthcare personnel, laboratory facilities, medical equipment's, and emergency services. A quantitative research design was adopted, using questionnaires administered to a sample of 100 undergraduate students selected through a multi-stage sampling technique to capture diverse experiences across faculties and departments. Primary data from students' responses were complemented with secondary sources such as journals, books, and credible online materials to provide context. The findings revealed significant gaps in service delivery, including frequent shortages of medicines, inadequate numbers of doctors, nurses, and laboratory staff, outdated or insufficient medical equipment's, and ineffective emergency care. The study concluded that while the clinic plays a vital role in providing healthcare to students and staff, it struggles to meet the community's healthcare needs consistently. It recommended regular drug supply, recruitment of more qualified personnel, and provision of modern equipment to improve the clinic's capacity and overall quality of care.

KEYWORDS

Access, Availability, Gashua, Healthcare, University

I. INTRODUCTION

Healthcare is a system through which a society provides medical services to its people. In Nigeria, healthcare encompasses a range of services aimed at promoting, maintaining, and restoring health. These services include preventive care, treatment of illnesses, maternal and child health services, emergency care, and mental health support. The Nigerian healthcare system is structured into three levels: primary, secondary, and tertiary. Primary healthcare serves as the first point of contact for individuals, offering services such as immunizations, maternal and child health care, and treatment for common illnesses. Secondary healthcare provides more specialized services, often requiring referrals from primary healthcare providers, and is typically offered in district hospitals. Tertiary healthcare is the most specialized level, providing advanced medical care, often in teaching hospitals and specialized medical centres. Despite this structured approach, the Nigerian healthcare system faces numerous challenges, including inadequate infrastructure, insufficient funding, and a shortage of healthcare professionals, which impact the availability and quality of services. These issues are further exacerbated by the underfunding of the healthcare sector,

which receives a fraction of the national budget, hindering the development and maintenance of essential health infrastructure.

Access to healthcare services in Nigeria remains a significant concern, particularly in rural areas. Factors such as geographical location, socioeconomic status, and infrastructure deficiencies contribute to disparities in healthcare access. Rural communities often face challenges in reaching healthcare facilities due to poor road networks and limited transportation options. Additionally, the distribution of healthcare professionals is uneven, with a higher concentration in urban centres, leaving rural areas underserved. The World Health Organization recommends a ratio of one doctor per 600 people; however, Nigeria's ratio is approximately one doctor for every 4,000 to 5,000 people, indicating a severe shortage of medical personnel. Financial barriers also play a crucial role, as many Nigerians cannot afford out-of-pocket expenses for medical services, leading to delays in seeking care and increased mortality rates. These access issues are further exacerbated by the underfunding of the healthcare sector, which receives a fraction of the national budget, hindering the development and maintenance of essential health infrastructure.

Universities in Nigeria play a pivotal role in shaping the future of the nation's healthcare system, both through education and the provision of medical services. Most Nigerian universities have health centres that cater to the medical needs of students and staff. These centres offer basic healthcare services, including treatment for common illnesses, emergency care, and health education. However, the capacity of these centres is often limited, and they may lack essential medical equipment and personnel. A study conducted at Afe Babalola University revealed that while students utilize healthcare services, their perceptions are influenced by factors such as the attitude of healthcare providers, waiting times, and the availability of medications. Furthermore, the quality of services varies across institutions, with some universities having well-equipped centres, while others struggle with inadequate facilities. The disparity in healthcare services within universities highlights the need for standardized policies and increased investment to ensure that all students have access to quality healthcare.

The challenges faced by university health services in Nigeria are multifaceted. One significant issue is the shortage of qualified healthcare professionals, including doctors and nurses, which affects the quality of care provided. Additionally, many university health centres operate with limited budgets, restricting their ability to procure necessary medical supplies and maintain infrastructure. A study assessing the utilization of university health services found that factors such as the availability and experience of staff, organization of healthcare services, interpersonal relationships, and waiting times significantly influenced students' decisions to seek care. These challenges are compounded by the increasing demand for healthcare services as student populations grow, placing additional strain on existing facilities. Addressing these issues requires a concerted effort from university administrations, government bodies, and healthcare professionals to improve the quality and accessibility of health services within academic institutions.

II. STATEMENT OF THE PROBLEM

The provision of adequate healthcare services within the University of Maiduguri is a critical factor in ensuring the well-being and academic success of both students and staff; however, there remain persistent concerns regarding the sufficiency, accessibility, and quality of healthcare facilities available on campus. While prior studies have examined healthcare access in broader Nigerian contexts, there is limited empirical research specifically addressing the University of Maiduguri clinic and its capacity to meet the healthcare needs of its immediate academic community. Existing literature suggests that university health centres across Nigeria often face challenges such as shortages of essential medicines, insufficient numbers of healthcare personnel, and inadequate medical infrastructure, all of which hinder effective healthcare delivery. Despite these insights, little is known about the extent to which these challenges are present at the University of Maiduguri clinic, particularly in terms of whether the clinic maintains sufficient stocks of medicines for students and staff, employs an adequate number of qualified doctors, nurses, and laboratory personnel, and possesses the necessary laboratory tests, medical equipment, and emergency care services to handle diverse medical situations on campus. This gap is significant because insufficient medicines can delay or prevent proper treatment, inadequate staffing compromises timely and quality medical attention, and the lack of proper diagnostic and emergency facilities limits the clinic's ability to address acute and chronic health conditions effectively. Moreover, the absence of current, site-specific data creates challenges for university administrators and policymakers who seek to allocate resources efficiently and improve healthcare delivery within the institution.

Therefore, this study aims to fill this research gap by providing a comprehensive assessment of the Federal University Gashua clinic's capacity in these critical areas, generating evidence-based insights that can inform strategic interventions to enhance healthcare services for the university population, improve overall health outcomes, and support the academic performance and well-being of both students and staff in a context where health infrastructure and human resource challenges remain ongoing concerns.

III. OBJECTIVES OF THE STUDY

[1] The main objective of this study is to assess the availability and access to healthcare services in Federal University Gashua. The specific objectives are to:

[2] Assess if the Federal University Gashua school clinic has enough medicines for students and staff;

[3] Ascertain if there are enough doctors, nurses, and lab workers at the Federal University Gashua school clinic;

[4] Identify whether the clinic has the needed lab test, medical equipment's and emergency care services.

IV. RESEARCH QUESTIONS

[1] The following questions were answered in this study.

[2] Does Federal University Gashua school clinic have sufficient stocks of medicines to meet the healthcare needs of students and staff?
[3] Are there enough qualified doctors, nurses, and laboratory personnel at the Federal University Gashua school clinic to provide adequate healthcare services?
[4] Does the Federal University Gashua school clinic have the necessary laboratory tests, medical equipment, and emergency care services to effectively address the health needs of students and staff?

V. SIGNIFICANCE OF THE STUDY

The significance of this study lies primarily in its potential to improve healthcare delivery at the Federal University Gashua, thereby enhancing the overall well-being of students and staff. University health clinics play a pivotal role in ensuring that academic communities remain healthy, productive, and able to engage fully in educational and professional activities. By assessing whether Federal University Gashua school clinic has adequate medicines, the study provides insights into the extent to which students and staff can access necessary treatments without interruptions, which is critical for managing both minor and chronic health conditions. Ensuring consistent availability of essential medications can prevent the escalation of illnesses, reduce absenteeism, and support the overall academic performance of students, as health challenges are a known barrier to learning and concentration. This research will highlight areas where the clinic may be lacking, thereby guiding the administration in prioritizing resources and addressing gaps in medicine availability.

Another key significance of this study is its focus on healthcare personnel, particularly doctors, nurses, and laboratory staff, whose presence and competence are essential for effective medical service delivery. A shortage of qualified healthcare providers can lead to long waiting times, inadequate consultations, and poor-quality care, all of which negatively impact the health outcomes of students and staff. By investigating the adequacy of staffing at the University of Maiduguri clinic, the study offers critical evidence on whether the clinic can meet the growing demands of its population. This information is valuable for university management and policymakers, as it can inform recruitment strategies, training programs, and workforce planning, ensuring that healthcare delivery is not compromised by human resource constraints. Ultimately, this can contribute to a more responsive and efficient health service that aligns with the needs of the university community.

The study is also significant because it evaluates the availability of laboratory tests, medical equipment, and emergency care services, which are essential for accurate diagnosis, timely treatment, and the management of critical health situations. The absence of inadequacy of these resources can severely limit the clinic's capacity to provide comprehensive healthcare, forcing students and staff to seek external medical facilities that may be costly, time-consuming, or inaccessible. By identifying gaps in laboratory and emergency services, the study will inform resource allocation and infrastructure development within the University of Maiduguri clinic. This aspect of the research is particularly important in emergency situations where prompt medical intervention can prevent complications or fatalities, thereby safeguarding the health and safety of the university community.

Finally, this study holds broader implications for policy formulation, planning, and future research on university healthcare services in Nigeria. By providing empirical data on medicine availability, staffing adequacy, and facility readiness at the University of Maiduguri clinic, the research offers evidence that can support the development of targeted interventions aimed at improving healthcare delivery within academic institutions. The findings can also serve as a benchmark for other universities in Nigeria, promoting best practices and encouraging comparative assessments across different institutions. Furthermore, the study contributes to the limited body of research specifically addressing university clinics, filling a gap in knowledge and providing a foundation for further investigations into healthcare challenges, resource allocation, and policy effectiveness in higher education settings. This ultimately enhances the capacity of universities to provide accessible, quality healthcare that supports the health, academic success, and overall welfare of their communities.

A. Scope of the Study

The scope of this study was limited to assessing healthcare services at the Federal University Gashua school clinic, focusing on the availability of medicines, adequacy of doctors, nurses, and laboratory staff, and the presence of necessary laboratory tests, medical equipment, and emergency care services. It was confined to the main campus and examined how these factors affected access to and quality of healthcare for students and staff.

VI. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

A. Availability of Medicine in University Clinic

The availability of medicines in university clinics is a fundamental issue in ensuring the health and well-being of both students and staff, as access to essential drugs often determines whether primary healthcare needs are adequately met or not. Medicines form the backbone of treatment interventions, ranging from common illnesses like malaria, typhoid, flu, and infections to the management of chronic conditions such as hypertension and diabetes that may affect members of the university community. When medicines are consistently unavailable, students and staff are forced to seek care outside the university environment, which often involves higher costs and longer waiting times in public or private hospitals, thereby defeating the purpose of having an on-campus clinic meant to provide convenient and affordable healthcare. The World Health Organization considers consistent access to essential medicines as one of the major indicators of a functional healthcare system, and the lack of such availability compromises both preventive and curative services. In Nigeria, where healthcare facilities are already overstretched, the absence of adequate drug supplies in university clinics further worsens inequalities in healthcare access, particularly for students who may not have sufficient resources to afford treatment elsewhere.

Another important dimension of medicine availability in university clinics is the issue of supply chain management and procurement systems, which play a vital role in ensuring that drugs are purchased, stored, and dispensed effectively. Weak procurement systems often result in stock-outs, expired medicines, or reliance on substandard and counterfeit drugs, which compromise patient care and safety. Studies have shown that in many Nigerian

universities, the distribution of medicines is poorly coordinated, and clinic pharmacies sometimes lack even the most basic drugs such as pain relievers, antibiotics, and anti-malarial. This situation is compounded by bureaucratic bottlenecks, underfunding, and corruption within procurement processes, which delay or prevent the timely purchase of medicines. Furthermore, the lack of modern drug inventory systems means that most university clinics still rely on manual stock-keeping, which makes it difficult to predict consumption patterns or identify shortages before they occur. The result is a vicious cycle where patients frequently encounter drug shortages, leading to dissatisfaction and mistrust of university health services.

The affordability of medicines also plays a significant role in their availability, as students often have limited income and may not afford to buy expensive prescriptions if not subsidized by the university. In some Nigerian universities, clinic drugs are heavily subsidized or even free, but in many others, students are required to purchase drugs at near-market prices, creating a financial barrier to access. The high cost of medicines in clinics is sometimes attributed to inadequate funding of health services by universities, forcing them to run their pharmacies more like profit-making ventures than welfare services. This discourages many students from completing their treatment regimes, especially when faced with chronic illnesses requiring long-term medication. Consequently, students may resort to cheaper alternatives such as local chemists, street drug vendors, or self-medication, all of which expose them to risks of counterfeit drugs, misuse, and adverse health consequences. Hence, availability is not merely about physical presence of medicines in the clinic but also about whether students and staff can access them at affordable prices without financial hardship.

Equally critical is the role of government policies and institutional support in shaping drug availability in university clinics. National healthcare policies on essential drugs and university-level health policies determine which medicines are considered necessary and how they are procured. Unfortunately, in many cases, there is a disconnect between national drug policies and implementation at the university level, with institutions often left to struggle on their own without clear budgetary allocation for essential drugs. Even when universities receive budgetary support, delays in fund release and mismanagement often result in gaps in drug supply. Additionally, some university clinics do not have the autonomy to source medicines directly from suppliers, relying instead on centralised procurement processes that take months to deliver drugs, by which time demand may have shifted. This bureaucratic inefficiency not only contributes to shortages but also undermines the trust of students and staff in the healthcare system of their institutions.

The human resource aspect of drug availability cannot be overlooked, as the presence of qualified pharmacists and pharmacy technicians within university clinics is essential for ensuring rational drug use. Many university clinics across Nigeria either lack licensed pharmacists or have only one pharmacist who is overwhelmed with responsibilities, leading to poor drug management and dispensing practices. Without trained professionals, drug stock management is often left in the hands of nurses or administrative staff who may not have adequate pharmaceutical training, thereby increasing the likelihood of stock mismanagement, wrong prescriptions, and irrational drug use. Furthermore, inadequate staffing also affects patient counselling and follow-up, which are essential for ensuring adherence to prescribed medications. In cases where medicines are available but poorly

dispensed or explained, patients may misuse drugs or discontinue treatment prematurely, further undermining the effectiveness of the healthcare system within the university environment.

The frequent occurrence of drug stock-outs in university clinics has direct implications on academic performance and productivity of both students and staff, as poor access to medicines often translates into prolonged illnesses, absenteeism, and reduced concentration in academic activities. For instance, students suffering from common infections like malaria or typhoid are unable to attend classes or participate effectively in academic work if they cannot access timely and appropriate medication at the clinic. Staff members also face challenges in delivering lectures and administrative tasks when they have to take time off to seek care outside the university due to lack of medicines within the clinic. This negatively impacts the quality of education and the overall university experience. In extreme cases, inadequate medicine availability has led to worsening of health conditions, hospitalisation, or even fatalities that could have been prevented with timely access to drugs. Therefore, the availability of medicines in university clinics is not just a health issue but also an educational and developmental concern that directly affects institutional performance.

Lastly, the issue of medicine availability in university clinics must be situated within the larger context of healthcare inequalities in Nigeria. While some well-funded universities, particularly in urban centres, may have relatively better access to drugs, smaller or underfunded institutions often struggle with chronic shortages, reflecting broader disparities in healthcare provision across the country. This disparity raises questions of equity and justice, as students in poorly funded universities are disproportionately disadvantaged compared to their peers in better-funded institutions. Addressing this problem requires deliberate government intervention, sustainable financing mechanisms, improved procurement systems, and strong accountability structures to ensure that medicines are available when needed. Until these issues are adequately addressed, the problem of medicine unavailability will continue to undermine the purpose of university clinics and deny students and staff the right to basic healthcare services.

B. Adequacy of Healthcare Personnel

The adequacy of healthcare personnel in university clinics has remained a pressing concern in Nigeria because these institutions provide primary healthcare to a large population of students, staff, and sometimes the surrounding community. Universities are microcosms of the wider society, hosting thousands of young adults, lecturers, administrative staff, and their dependents, all of whom require access to basic and specialised healthcare services. In many Nigerian universities, including federal and state-owned institutions, the student population continues to expand without a corresponding increase in the recruitment of doctors, nurses, and other health workers, which has created serious strain on the limited staff available. Healthcare personnel shortages often lead to long waiting times, poor diagnosis, limited treatment options, and the inability of clinics to provide round-the-clock services. This imbalance is partly due to inadequate funding, government neglect, and brain drain, where qualified professionals leave public institutions for better opportunities abroad or in private practice. Such circumstances highlight how a lack of adequate personnel directly affects the quality of care that students and staff can access in university clinics.

Another important dimension to the discussion of personnel adequacy in university clinics is the specific ratio of healthcare workers to the population they serve. The World Health Organization has recommended a doctor-to-patient ratio of 1:600, but most Nigerian universities operate far below this standard, with some having only two or three medical doctors for populations exceeding 30,000 students and staff combined. This shortage is not limited to doctors alone, as nurses and laboratory scientists are equally few in number relative to the healthcare needs on campus. With such overwhelming patient loads, the limited staff members are often overworked and unable to give detailed attention to each case, leading to misdiagnoses or poor follow-up care. In some cases, students have been compelled to seek medical care outside campus facilities, which not only increases their financial burden but also undermines the role of the university clinic as the first point of healthcare access. This trend suggests that while infrastructure may exist, the absence of sufficient healthcare professionals creates a structural barrier to effective service delivery.

Furthermore, the inadequacy of healthcare personnel in university clinics reflects broader challenges within the Nigerian health system, where underfunding and poor working conditions discourage professionals from remaining in public service. University clinics typically rely on federal or state allocations to hire staff, but budgetary shortfalls often mean that personnel recruitment is delayed or not prioritised at all. In many cases, vacancies for doctors, nurses, and laboratory staff remain unfilled for years, while the patient population continues to grow steadily. The problem is aggravated by poor incentives for healthcare personnel working in university settings, where salaries and allowances are often delayed and opportunities for professional growth are limited. Many healthcare workers prefer to move to teaching hospitals, private practices, or migrate abroad where remuneration and work conditions are better. Consequently, university clinics are left with skeletal staffing structures that cannot meet the needs of students and staff.

The lack of adequate personnel also has implications for the delivery of specialised care in university clinics. Most university health centres are designed to provide only primary healthcare, but with the right mix of professionals general practitioners, nurses, laboratory technicians, and even specialists in gynaecology, psychiatry, or paediatrics—they could serve as comprehensive centres capable of addressing a wider range of student and staff health needs. Unfortunately, the reality in most Nigerian universities is that clinics do not have specialists due to staffing shortages, which forces referrals to teaching hospitals or general hospitals. These referrals are often costly and time-consuming for students who may not have the resources to pursue them. For instance, in cases of mental health, the absence of counsellors and psychiatrists in university clinics has meant that many students struggle silently without appropriate care, which can escalate into crises. This underlines how the absence of adequate personnel directly reduces the scope and quality of healthcare services available within the campus environment.

Another critical issue arising from inadequate personnel is the psychological toll it takes on the few existing healthcare staff. Overworked doctors and nurses in university clinics are often under immense stress, working long hours without sufficient breaks and managing overwhelming patient numbers. This work-related stress can lead to burnout, errors in clinical judgment, and poor interpersonal relations with patients, further eroding trust in the university healthcare system. For instance, it has been reported in several Nigerian campuses that students often complain of unfriendly attitudes of nurses and doctors, but

deeper investigation usually reveals that such behaviours stem from fatigue and frustration with their workload (Okeke, 2022). Thus, the inadequacy of healthcare personnel not only compromises the quality of care but also creates an unhealthy work environment for the very staff tasked with saving lives.

In addition, the inadequacy of healthcare personnel undermines emergency response capacity in university clinics. Emergencies such as accidents, sudden illnesses, or outbreaks of contagious diseases require swift and well-coordinated action by trained personnel. However, with limited doctors, nurses, and laboratory technicians, many university clinics are ill-prepared to handle emergencies effectively. Students experiencing emergencies are often referred outside the university to general hospitals, sometimes after critical time has already been lost. This situation has tragic consequences in cases where immediate intervention could have saved lives. For example, a study of healthcare services in tertiary institutions revealed that many university clinics lack the 24-hour staffing needed for emergency care, which significantly weakens their role as frontline responders in campus health crises (Adebayo, 2020). This underscores the urgent need to increase personnel in order to strengthen emergency preparedness in university healthcare systems.

The inadequacy of healthcare personnel in university clinics also raises issues of equity in access to healthcare. Students from poorer backgrounds who cannot afford private healthcare depend almost entirely on university clinics, and when these clinics are understaffed, they suffer the most. Wealthier students often bypass university clinics and pay for services in private hospitals, leaving the burden of poor care on those with fewer financial resources. This creates inequalities in health access and outcomes within the same campus, where some groups enjoy better healthcare opportunities than others (Nnamdi, 2021). By failing to adequately staff university clinics, the system inadvertently deepens disparities in health access and outcomes. Therefore, ensuring adequate healthcare personnel is not just a matter of service delivery but also of social justice within the university environment.

Moreover, the shortage of healthcare personnel in university clinics hampers the ability of institutions to undertake preventive health initiatives such as regular medical screening, health education, vaccination campaigns, and mental health awareness programmes. Preventive care is essential in a university environment where young people face risks of infections, substance abuse, stress, and other health challenges. However, preventive initiatives require manpower for planning, execution, and follow-up, which is often lacking due to inadequate personnel. As a result, many university clinics operate reactively, dealing with illnesses as they arise rather than preventing them in the first place. This undermines the broader goal of promoting wellness and long-term health among the student population (Idris, 2022). The shortage of personnel therefore limits not only curative services but also the proactive role clinics should play in safeguarding health.

C. Laboratory Tests, Medical Equipment, and Emergency Services

University health clinics play a central role in safeguarding the well-being of both students and staff, yet the adequacy of laboratory tests, medical equipment, and emergency services within these clinics has been a recurring concern in developing contexts. The availability of reliable laboratory tests is particularly important for timely diagnosis and treatment, as many illnesses common among young adults such as malaria, typhoid, respiratory

infections, and sexually transmitted diseases require prompt and accurate identification. However, research has shown that university health centres in Nigeria are often characterised by weak diagnostic capacity, with only basic laboratory tests available and most advanced diagnostics referred to external hospitals, thereby creating delays in treatment (Afolabi, 2020). These challenges force students to rely on off-campus facilities, which may increase costs, prolong illness periods, and in some cases lead to self-medication, a dangerous practice that further undermines student health and academic productivity (Nwachukwu, 2021). Such gaps highlight the pressing need for expanded laboratory services to ensure that clinics are fully equipped to meet the healthcare demands of university populations.

Equally concerning is the limited availability of modern medical equipment within university health facilities. Many clinics continue to rely on outdated devices for patient assessment, with shortages of basic equipment such as blood pressure monitors, glucometers, ECG machines, and sterilisation tools. This situation severely constrains the ability of healthcare providers to deliver quality care and increases the likelihood of misdiagnosis or incomplete treatment (Ogunleye, 2022). In well-developed university healthcare systems, clinics are furnished with a wide range of diagnostic and therapeutic technologies that enable comprehensive in-house management of common conditions. By contrast, most Nigerian university clinics are unable to provide such holistic care, resulting in fragmented service delivery (Oni, 2020). The absence of modern equipment not only limits the scope of healthcare interventions but also undermines student confidence in university clinics, thereby pushing many students to seek private care at higher costs, further exacerbating healthcare inequality on campuses.

Emergency care services represent another critical aspect of university health systems, as campuses are densely populated environments where health crises, accidents, or outbreaks can occur at any time. Unfortunately, emergency preparedness in university clinics is often minimal, with many facilities lacking dedicated emergency rooms, resuscitation kits, and ambulance services (Okechukwu, 2021). In situations where students suffer acute medical conditions such as asthma attacks, epileptic seizures, cardiac emergencies, or traumatic injuries, the absence of rapid response equipment and trained personnel puts lives at risk. For example, studies have shown that delays in emergency response contribute significantly to poor health outcomes among students, particularly in regions with inadequate referral systems (Adeyemi, 2020). Unlike their counterparts in developed nations where university health centres are often equipped with 24-hour emergency units, most Nigerian university clinics are designed as primary care units without sufficient capacity to manage acute cases, thereby creating critical service gaps.

In addition to equipment shortages, laboratory services in university clinics are often constrained by the absence of advanced testing techniques and reagents, limiting the accuracy and reliability of diagnoses. Common diagnostic procedures such as complete blood counts, urinalysis, culture tests, and imaging scans are frequently unavailable, forcing clinicians to base decisions on symptoms rather than evidence-based diagnostics (Adebayo, 2021). This lack of capacity not only delays treatment but also undermines preventive healthcare, as conditions that could have been detected early often progress to severe stages before being referred to tertiary hospitals. The situation is worsened by erratic supply chains for laboratory reagents and poor maintenance culture, where even functional

equipment is left idle due to lack of servicing (Okeke, 2020). Consequently, the credibility of university health clinics suffers, and the continuity of care for students is compromised.
Another dimension of the problem relates to the inadequate training of laboratory and emergency care staff. Even where some equipment exists, the shortage of skilled technicians and emergency responders restricts effective utilisation. Studies have revealed that many laboratory technicians in university clinics are either under-qualified or overburdened by workload, leading to frequent errors in test results and delayed reporting (Onyeka, 2022). Similarly, emergency service provision requires continuous training in first aid, cardiopulmonary resuscitation (CPR), trauma management, and infection control, yet most university health staff do not receive such professional development due to budgetary and administrative limitations (Eze, 2021). The result is a situation where students and staff are denied optimal healthcare experiences, despite the presence of some infrastructure. This suggests that investments in training and retraining are as important as physical expansion of facilities.

The implications of these deficiencies extend beyond individual health, affecting the overall learning environment and academic performance of students. A campus where laboratory tests are unavailable, medical equipment is obsolete, and emergency services are weak inevitably experiences higher absenteeism due to prolonged illnesses and untreated conditions (Musa, 2021). Research has consistently shown that student productivity and retention are tied to the availability of accessible and efficient healthcare services (Okafor, 2022). When clinics cannot provide prompt and accurate care, students lose valuable study time, staff productivity is reduced, and confidence in institutional support diminishes. This situation may also aggravate mental health stressors, as students feel insecure about their ability to access reliable care on campus, thereby compounding health-related challenges.
Furthermore, the lack of emergency services has a wider impact on campus safety and crisis management. University populations are not immune to large-scale emergencies such as disease outbreaks, fire accidents, or mass casualty incidents, which require structured and rapid health responses. Unfortunately, most university clinics in Nigeria are ill-prepared to handle such crises, lacking both equipment and protocols for disaster management (Olowo, 2020). In contrast, universities in countries with stronger healthcare systems integrate emergency preparedness into their clinic operations, ensuring quick mobilisation of resources in the event of an outbreak or accident (Ibrahim, 2021). The failure of Nigerian universities to replicate such systems reflects broader gaps in health governance, where preventive and emergency planning receives little attention.

At the structural level, poor funding remains a major constraint to laboratory tests, medical equipment provision, and emergency service readiness. University clinics are typically financed from limited institutional budgets, with health services competing with other pressing academic and infrastructural needs. This has led to chronic underinvestment in healthcare facilities, resulting in dilapidated laboratories, obsolete equipment, and poorly stocked emergency units (Lawal, 2020). Without targeted funding from government or donor agencies, these facilities struggle to upgrade, creating a vicious cycle where student demand grows but healthcare supply remains stagnant (Garba, 2021). Consequently, students and staff bear the brunt of systemic neglect, which reinforces healthcare inequities within the academic environment.

Finally, addressing the issues of laboratory tests, medical equipment, and emergency services in university clinics requires a comprehensive policy response that prioritises student health as a component of educational development. The global health agenda stresses the need for strong health systems at all institutional levels, yet Nigerian universities continue to lag behind in providing even the most basic services (Ogunyemi, 2022). Bridging this gap requires not only infrastructural investment but also workforce development, supply chain strengthening, and adoption of innovative health technologies. Universities must also partner with teaching hospitals and state ministries of health to establish referral networks that guarantee timely access to advanced care when needed (Adamu, 2021). Unless these measures are taken, the cycle of poor laboratory services, inadequate equipment, and weak emergency responses will continue to undermine the health and academic future of Nigerian university students and staff.

VII. THEORETICAL FRAMEWORK

A. Structural Functionalist Theory

A useful sociological theory that can be applied to this study is the Structural Functionalist theory, which views society as a system made up of interrelated parts that work together to maintain stability and order. From this perspective, healthcare systems, including university clinics, function as an important part of the social structure because they contribute to the well-being, productivity, and stability of both individuals and the community. When university clinics provide adequate medicines, sufficient healthcare personnel, laboratory tests, medical equipment, and emergency services, they fulfil a vital function of maintaining the health of students and staff, which in turn ensures effective teaching, learning, and research. According to Parsons (2020), institutions such as healthcare services play the role of meeting societal needs, and when such services are weak or underdeveloped, the system faces dysfunction. Therefore, this study is significant because it seeks to understand whether the university clinic fulfils its functional role of safeguarding the health of its academic community, without which other institutional goals may be compromised.

Structural Functionalism also emphasises the interdependence of different social institutions, and this can be used to explain why the adequacy of university healthcare is central to broader educational goals. The clinic is not isolated but connected to the wider goals of the university, which include intellectual development, student retention, and overall institutional productivity. When there are shortages of medicines, healthcare personnel, or laboratory facilities, the clinic fails to effectively perform its role, which leads to disruptions in the education process, absenteeism, and lowered student achievement (Okafor, 2021). For instance, a student with chronic health challenges who cannot get timely treatment in the clinic may face prolonged absence from classes, leading to declining academic performance. From a functionalist perspective, this situation represents a dysfunction in the educational system, as health-related challenges interfere with the smooth running of the institution. This study therefore draws attention to how weaknesses in healthcare service provision at university clinics can ripple across other sectors of the institution and cause systemic instability.

Furthermore, the Structural Functionalist theory allows us to examine the importance of role allocation within the clinic setting, particularly regarding the adequacy of healthcare personnel. In functionalist terms, every role is necessary for the effective functioning of the system, and this includes doctors, nurses, laboratory scientists, and emergency responders. The absence of one category of health worker creates a gap that disrupts the overall performance of the healthcare system (Johnson, 2022). For example, without enough doctors to diagnose conditions, patients may remain untreated; without nurses to provide care, recovery is delayed; without laboratory staff, proper tests cannot be conducted; and without emergency care providers, urgent cases could result in fatalities. Each role is therefore interdependent, and their collective adequacy ensures that the clinic can function effectively as part of the university's social system. By assessing whether these roles are adequately filled, this study helps to identify the strengths and weaknesses of the system, making it possible to propose measures to strengthen functional balance.

Another way Structural Functionalism is useful is in understanding how medical equipment, laboratory tests, and emergency services serve as institutional mechanisms for maintaining equilibrium within the university community. From this viewpoint, access to diagnostic services, life-saving equipment, and emergency care is not just a matter of health but a stabilising factor that allows the university to function without major disruptions (Adebayo, 2021). If students or staff members suffer medical emergencies but do not have access to immediate treatment, the situation could escalate into crises that affect teaching schedules, social interactions, and institutional image. Functionalists argue that every institution has built-in mechanisms for addressing challenges in order to preserve order, and in this case, laboratory and emergency services act as those mechanisms. This study therefore explores whether the clinic is well-equipped to play its stabilising role, and if not, it highlights how dysfunction within healthcare provision may create ripple effects that destabilise the broader institution.

Lastly, applying Structural Functionalist theory underscores the gap this study seeks to fill in research on university healthcare services. Many previous studies have examined healthcare delivery in Nigeria broadly, focusing on public hospitals or rural healthcare, but limited attention has been paid to university clinics as functional institutions within academic settings (Ibrahim, 2023). Yet, university communities face unique health challenges such as stress, overcrowding, and youth-related illnesses that require tailored responses. By using the functionalist lens, this study highlights how inadequate medicines, personnel, and medical facilities at university clinics can disrupt the balance of the academic environment and threaten both student welfare and institutional effectiveness. The study thus fills a crucial gap by showing that university clinics are not peripheral but central to the functioning of higher education institutions. Without adequate healthcare, the larger social goals of the university, education, research, and social development cannot be achieved. This insight underscores the importance of strengthening university healthcare as a functional pillar of societal stability.

B. Methodology

This chapter presents the research methodology which describes the arrangement of the conditions for data collection and analysis in a manner that aims to combine the research with the relevance of the methods and procedures. Specifically, the chapter describes the

study area, research design, and sources of data, population of the study, sample size, sampling techniques, method of data collection, and method of data analysis.

C. The Study Area

The study was carried out in the Federal University Gashua. Federal University Gashua is located in Gashua, Yobe State, in the North-eastern part of Nigeria. Established in 2013, the Federal University, Gashua is a non-profit public higher education institution located in the small city of Gashua (population range of 50,000-249,999 inhabitants), Yobe. Officially recognized by the National Universities Commission of Nigeria, Federal University, Gashua (FUGA) is a coeducational Nigerian higher education institution. Federal University, Gashua (FUGA) offers courses and programs leading to officially recognized higher education degrees in several areas of study. See the uniRank degree levels and areas of study table below for further details. This 10-year-old Nigerian higher-education institution has a selective admission policy based on entrance examinations. FUGA also provides several academic and non-academic facilities and services to students including as well as administrative services.

Federal University, Gashua is in Gashua community in Yobe State in north-eastern part of Nigeria. It is located near River Yobe a few miles below the convergence of the River Hadejia and the River Jama'are. Average elevation is about 299 m above the sea level. Its population in 2006 was about 198,400. The hottest months are March and April with temperature ranges of 38-40o Celsius. In the rainy season, June-September, temperatures fall to 23-28o Celsius, with rainfall of 500 to 1000mm.

Gashua is one of the largest and most developed towns in Yobe State. Since 1976 it has been headquarters of the Bade Local Government Area. The Bade language is spoken in Gashua which is the headquarters of Bade local government area. Bade is one of seven languages of the Chadic family indigenous to Yobe State. The town lies near the Nguru-Gashua Wetlands, an economically and ecologically important area.

D. Research Design

This study adopts quantitative research design. This type of research design is centred on collecting and analysing numerical data to describe characteristics, calculate averages, and find correlations. Quantitative research design focuses on collection of data through. The survey research uses predetermined questions that aim to describe or explain features of a very large group or groups. Therefore, the reason why the researcher employed the quantitative research method is to gather a relevant data from many different participants in order to get genuine data.

E. Sources of Data

The data for this study was collected through primary and secondary sources. The primary data was sourced from the administration of calculated number of questionnaires on the respondents. The data include responses directly from the respondents. For the secondary data, the researcher make use of internet data. The researcher gets a substantial amount of information from the internet to conduct this research. Similarly, the researcher also make the use of journals, books, newspapers, magazines, and other published materials as

part of the secondary data. These sources of data are the most traditional ones, but are still used in today's research. Unlike the internet, it is sure that one could get good and accurate information from books and published materials, but they could be obstacles sometimes.

F. Population of the Study

The target population of this study were undergraduate students who are available in 2024 – 2025 academic session, who stood at about 3,550.

G. Sample Size

In this study, 100 respondents were used to ensure a diverse and representative sample that provides reliable and meaningful data. This sample size is adequate for capturing varying perspectives while maintaining manageability in data collection and analysis. Additionally, this number strike a balance between depth and efficiency, enabling the study to gather sufficient insights while remaining practical within the available time and resources.

H. Sampling Techniques

In order to get a representative sample, multi-stage sampling technique was used in the sampling procedure. The first stage used stratified sampling to select four faculties out of the 5 faculties of the University. These faculties are, Faculty of Science, Faculty of Management and Social Sciences, Faculty of Arts, and the Faculty of Education. The second stage selects four Departments out of the selected Faculties using purposive sampling. These Departments are the Department of Sociology; Department of Biology; Department of History and International Studies; and Education and Mathematics. In the third stage, twenty five respondents were selected each from the four Departments using simple random sampling. Therefore, 100 students were the sample size for this study.

I. Method of Data Collection

This study used a structured questionnaire as the data collection tool. The first part of the questionnaire was an introduction letter to generate enthusiasm about the research and encourage the respondents to feel free and participate in the study. The second part comprises of respondents' socio-demographic characteristics. The third part were questions intended to provide answer to each research questions. A total of 100 questionnaires were administered on the respondents during the survey.

J. Method of Data Analysis

In order to analyse the data collected effectively and efficiently for easy management and accuracy, responses from the questionnaire were analysed using descriptive statistics of frequency and percentage.

DATA PRESENTATION AND ANALYSIS

Table 1 - Socio-demographic Characteristics of Respondents (N = 97)

Variable	Category	Frequency	Percentage (%)
Gender	Male	52	53.6
	Female	45	46.4
Age	18–22	40	41.2
	23–27	35	36.1
	28 and above	22	22.7
Level of Study	100–200 Level	25	25.8
	300–400 Level	47	48.5
	500 Level	25	25.8
Marital Status	Single	70	72.2
	Married	27	27.8
Total		98	100.0

Source: Field work, 2025.

The distribution of respondents by gender shows that males constituted a slightly higher proportion, representing 53.6% of the total, while females accounted for 46.4%. This near balance in gender composition suggests that the study was able to capture the perspectives of both male and female students fairly evenly, which strengthens the representativeness of the responses obtained for subsequent sections of the analysis.

In terms of age, the majority of respondents fell within the younger age bracket of 18 to 22 years (41.2%), followed by 36.1% in the 23 to 27 years group, while 22.7% were 28 years and above. This distribution reflects the typical age structure of university students, where younger individuals form the majority due to their enrolment in undergraduate programmes, though a significant number of older students also participated.

The results further reveal that respondents were fairly distributed across levels of study, with the highest concentration in 300–400 level (48.5%), followed by those in 100–200 level (25.8%) and an equal percentage (25.8%) in 500 level. This indicates that students across different academic stages contributed to the study, ensuring that the findings represent experiences from both lower-level and final-year students.

Regarding marital status, 72.2% of the respondents were single, while 27.8% were married. The higher number of single respondents reflects the typical demographic composition of a university environment where most students are young and unmarried, though the inclusion of married students also provides insights into a more diverse set of healthcare needs within the university community.

Table 2 - Adequacy of Medicines at the University Clinic (N = 97)

Item	Response Option	Frequency	Percentage
How often are prescribed medicines available at the clinic?	Always available	12	12.4
	Sometimes available	49	50.5
	Rarely available	24	24.7
	Never available	12	12.4
How adequate is the variety of medicines stocked in the clinic?	Very adequate	9	9.3
	Moderately adequate	34	35.1
	Inadequate	38	39.2
	Very inadequate	16	16.5
What do you do when medicines are unavailable at the clinic?	Buy from outside pharmacy	55	56.7
	Use substitute from clinic	18	18.6
	Delay treatment	14	14.4
	Abandon treatment	10	10.3
Does the clinic receive enough medicine supply to meet demand?	More than enough	7	7.2
	Just enough	28	28.9
	Not enough	42	43.3
	Not sure	20	20.6

Source**:** Field work, 2025.

The results on the adequacy of medicines at the University Clinic reveal a mixed but concerning situation regarding availability, variety, and sufficiency of supplies. On the question of how often prescribed medicines are available, only a small proportion of respondents indicated that medicines are *always available*, while a majority stated they are *sometimes available*. A notable portion also reported that medicines are *rarely* or *never available*, suggesting inconsistency in drug supply. This highlights that while the clinic does make medicines accessible at times, students and staff often encounter shortages that could hinder timely treatment.

Regarding the variety of medicines stocked in the clinic pharmacy, only a limited number of respondents rated it as *very adequate*. A larger group believed the variety is *moderately adequate*, while a significant number described it as *inadequate* or *very inadequate*. This points to limitations not only in the frequency of availability but also in the range of medicines, which may compel patients to seek alternatives outside the clinic.

When medicines are unavailable, most respondents reported that they resort to *buying from outside pharmacies*. This was by far the most common coping strategy, while smaller groups mentioned using substitutes offered by the clinic, delaying treatment, or abandoning treatment altogether. The finding underscores that shortages at the clinic impose financial

and health burdens on students and staff, as they are forced to spend extra money or compromise their treatment.

On whether the University clinic receives enough medicine supply to meet demand, very few respondents believed that supplies are *more than enough*. Some respondents felt the supply was *just enough*, but a larger proportion said it was *not enough*. A fair number were also *not sure*. This reflects general dissatisfaction and uncertainty with the medicine supply chain, suggesting systemic gaps in procurement, funding, or distribution processes.

Table 3 - Availability of Healthcare Personnel at the University of Maiduguri Clinic (N = 97)

Item	Response Option	Frequency	Percentage
Do you believe the number of doctors at the clinic is sufficient?	Yes, always sufficient	12	12.4
	Sometimes sufficient	33	34.0
	Rarely sufficient	28	28.9
	Not sufficient at all	24	24.7
How adequate are the nurses available at the University clinic?	Very adequate	15	15.5
	Adequate	32	33.0
	Inadequate	29	29.9
	Very inadequate	21	21.6
How often do you meet laboratory staff on duty when needed?	Always available	14	14.4
	Frequently available	36	37.1
	Rarely available	29	29.9
	Never available	18	18.6
Overall, does the clinic have enough healthcare personnel?	Strongly agree	13	13.4
	Agree	30	30.9
	Disagree	31	32.0
	Strongly disagree	23	23.7

Source: Field work, 2025

The findings from Section C reveal mixed opinions on the adequacy of healthcare personnel at the University of Maiduguri clinic. When respondents were asked about doctors, only 12.4% believed that doctors were always sufficient, while the majority leaned towards occasional sufficiency (34.0%) and insufficiency, with 28.9% reporting that doctors were rarely sufficient and 24.7% stating they were not sufficient at all. This suggests that most students and staff experience delays in accessing medical doctors, which can reduce confidence in the clinic's services.

The assessment of nurses showed slightly better ratings than that of doctors. About 33.0% described the nurses as adequate, while 15.5% considered them very adequate. However, 29.9% judged nursing staff as inadequate, and 21.6% as very inadequate. This indicates that while some users find nursing services reasonably staffed, many others encounter shortages, pointing to inconsistencies in patient care.

On the availability of laboratory personnel, 14.4% reported that lab staff were always available, while 37.1% said they were frequently available. Despite this, 29.9% stated that they rarely met laboratory staff when needed, and 18.6% reported never finding them on duty. This highlights significant staffing challenges in the laboratory section, which can delay timely diagnosis and treatment.

Finally, regarding the overall adequacy of healthcare personnel, only 13.4% strongly agreed and 30.9% agreed that staff strength was sufficient. In contrast, 32.0% disagreed, and 23.7% strongly disagreed, showing that a majority of the respondents perceive staffing at the clinic as inadequate. This reflects a general dissatisfaction with the human resource capacity of the clinic, suggesting that while some staff are available, the demand far outweighs the supply.

Table 4 - Availability of Laboratory Tests, Medical Equipment, and Emergency Care (N = 97)

Item	Response Option	Frequency	Percentage
How would you rate the availability of essential laboratory tests?	Very adequate	10	10.3
	Adequate	32	33.0
	Inadequate	38	39.2
	Very inadequate	17	17.5
Do you think the medical equipment in the clinic is modern and functional?	Very modern and functional	8	8.2
	Somewhat modern and functional	29	29.9
	Outdated but still functional	42	43.3
	Outdated and non-functional	18	18.6
How effective is the emergency care service provided by the clinic?	Very effective	12	12.4
	Moderately effective	34	35.1
	Ineffective	36	37.1
	Very ineffective	15	15.5
If the clinic lacks laboratory tests or equipment, what do patients usually do?	Seek referral to other hospitals	27	27.8
	Pay for tests in private labs	40	41.2
	Delay diagnosis/treatment	20	20.6

	Abandon further medical care	10	10.3

Source: Field work, 2025

The findings from table 4 reveal significant challenges regarding laboratory tests, equipment, and emergency care at the University clinic. For laboratory test availability, only 10.3% of respondents described the services as very adequate, while 33.0% considered them merely adequate. However, a combined 56.7% rated them as either inadequate or very inadequate, suggesting a general dissatisfaction with the laboratory diagnostic capacity of the clinic. This indicates that many students and staff may not be able to access timely and reliable tests within the facility.

Regarding medical equipment, only 8.2% perceived the tools as very modern and functional, while 29.9% described them as somewhat modern and functional. Alarmingly, 43.3% believed the equipment is outdated but still functional, and 18.6% regarded it as outdated and non-functional. This shows that the majority of the clinic's equipment may not meet current standards of medical technology, thereby limiting the quality of healthcare delivery. Emergency care was also viewed unfavourably by most respondents. While 12.4% rated it as very effective and 35.1% as moderately effective, a larger proportion (52.6%) described it as either ineffective or very ineffective. This highlights a major weakness in the clinic's ability to respond to urgent medical cases, which is critical for student and staff health safety.

When essential tests or equipment were unavailable, 41.2% of respondents reported paying for services in private laboratories, while 27.8% sought referrals to other hospitals. Meanwhile, 20.6% delayed diagnosis or treatment, and 10.3% abandoned further care. This pattern demonstrates that the inadequacy of resources at the University clinic not only increases out-of-pocket expenses but also discourages some patients from pursuing necessary medical care, posing a risk to overall health outcomes.

VIII. DISCUSSION OF FINDINGS

The findings from the assessment of the adequacy of medicines at the University Clinic show that the majority of respondents indicated that prescribed medicines are only sometimes available, while a smaller proportion noted that they are always available, and a significant number expressed that medicines are either rarely or never available. This finding points to irregularities in the supply chain and aligns with existing studies that have shown frequent stock outs in university health facilities due to limited funding, procurement bottlenecks, and poor forecasting of drug needs. For instance, Adebayo and Ojo (2021) observed that many university clinics in Nigeria face periodic shortages of essential drugs, which undermines the effectiveness of healthcare delivery to staff and students. However, in contrast, Onyema et al. (2022) reported that some well-funded private university clinics in Southern Nigeria maintain a more reliable medicine supply, suggesting that institutional funding capacity plays a critical role. The implication here is that the University Clinic under study shares a similar challenge with other public institutions, where inconsistency in drug availability forces patients to either buy from outside pharmacies or, in more severe cases,

delay treatment, a finding that resonates with Adebowale (2020) who linked medicine shortages in university clinics to poor health-seeking behaviours and treatment non-compliance among students.

The findings on the adequacy of healthcare personnel reveal that most respondents felt the number of doctors at the clinic was sometimes sufficient, while others complained of inadequacy, with a small proportion indicating that doctors were always sufficient. Similarly, responses about nurses suggested moderate adequacy, while opinions on laboratory staff availability indicated that although they were often available, they were not consistently present when required. This reflects broader concerns highlighted by Okafor (2020), who noted that inadequate staffing in Nigerian university health centres contributes to long waiting times, reduced consultation periods, and overstretched healthcare workers. The results are in conformity with Usman and Ibrahim (2021), who found that shortages of medical personnel in public university clinics in Northern Nigeria often hinder the quality of service delivery compared to private institutions. Conversely, Eze (2022) observed that in some better-resourced institutions in Southern Nigeria, staffing ratios were more favourable, which improved patient outcomes. The pattern of responses in this study therefore reflects a systemic inadequacy in personnel, consistent with national reports that Nigeria suffers from a low doctor-to-patient and nurse-to-patient ratio, far below the World Health Organization's recommended standard. This inadequacy reduces the ability of the University Clinic to effectively manage patient demand, leading to frustration among students and staff.

The evaluation of laboratory tests, medical equipment, and emergency care shows that most respondents believed essential laboratory tests were only moderately adequate, while many felt medical equipment was somewhat modern but not fully up to date. Additionally, the effectiveness of emergency care was rated as moderate by the majority, with others highlighting ineffectiveness due to delays and insufficient facilities. These findings are supported by studies such as that of Ibrahim and Musa (2021), who reported that university health centres across Nigeria are often equipped with outdated laboratory machines and inadequate emergency response facilities, limiting their ability to diagnose and treat promptly. This finding also conforms to Adamu (2022), who noted that students in northern universities often have to seek laboratory services in private facilities due to insufficient resources within their campuses. However, in contradiction, a study by Obinna (2020) highlighted that in some institutions in Lagos and Abuja, where funding from school fees is higher, clinics are relatively better equipped and emergency care is more responsive. The implication is that while this study's findings mirror the general inadequacy observed in most public universities, they also highlight the inequality in healthcare infrastructure across Nigerian universities. The reliance on private laboratories or external referrals by patients reflects systemic weaknesses in institutional capacity, which could delay diagnosis and treatment, ultimately worsening health outcomes.

Taken together, the results across the different sections reveal a pattern of inadequacies in medicines, personnel, laboratory tests, and emergency care within the University Clinic. This aligns with broader evidence that university health facilities in Nigeria face systemic underfunding, shortages of drugs and equipment, and insufficient staffing, which collectively weaken their ability to provide effective healthcare services to students and staff. While the findings are consistent with those of Adebayo and Ojo (2021), Okafor (2020), and Ibrahim

and Musa (2021), who all documented similar challenges in Nigerian university health centres, there is also evidence of contradiction with studies such as Onyema et al. (2022) and Obinna (2020), who reported better conditions in private or well-funded institutions. These contradictions suggest that institutional funding, governance, and management practices are critical determinants of healthcare adequacy within university clinics. The findings therefore not only reflect the structural challenges of healthcare provision in public institutions but also underscore the disparities between resource-constrained and resource-rich universities in Nigeria.

A. Summary

This study assessed the availability and access to healthcare services in Federal University Gashua School Clinic. The specific objectives are to assess if the University of Maiduguri clinic has enough medicines for students and staff, ascertain if there are enough doctors, nurses, and lab workers at the University of Maiduguri clinic, and identify whether the clinic has the needed lab test, medical equipment, and emergency care services. This study adopted a quantitative research design. The choice of this design was based on its ability to collect and analyse numerical data that describe characteristics, calculate averages, and find correlations. Since quantitative methods rely on surveys with predetermined questions, this approach was appropriate for capturing the perceptions and experiences of a large number of students within the university setting. The researcher considered it the most suitable approach to obtain genuine data that represent the healthcare realities faced by students.
The study made use of both primary and secondary sources of data. The primary data was obtained through the administration of questionnaires to students, which provided first-hand responses about their experiences with the university clinic. Secondary data, on the other hand, was gathered from journals, books, newspapers, magazines, and credible online sources. These secondary sources provided supporting evidence and background context for understanding the challenges of healthcare services in Nigerian universities. While internet sources were useful for providing recent updates, published books and academic journals offered more reliable and verifiable insights into the subject matter. This dual reliance on primary and secondary data ensured that the study was both grounded in lived student experiences and supported by established scholarly evidence.

The population of this study comprised undergraduate students of the Federal University Gashua School Clinic in the 2024–2025 academic session, with a total of 38,047 students forming the target population. From this large population, a sample size of 100 students was selected for the study to allow for diversity in responses while still ensuring manageability during data collection and analysis. A multi-stage sampling technique was employed: stratified sampling was used to select four faculties, purposive sampling was applied in the selection of four departments, and simple random sampling was used to select twenty-five respondents from each department. This systematic approach ensured that the sample was representative of different disciplines and student backgrounds, thereby enhancing the validity of the findings.

The findings of the study revealed that the University Clinic experiences significant gaps in the provision of healthcare services. While some students reported that prescribed medicines were sometimes available, many others indicated frequent shortages, forcing them to seek alternatives outside the clinic. The availability of healthcare personnel, including doctors, nurses, and laboratory staff, was also found to be inadequate, with

respondents noting long waiting times and overworked staff. Furthermore, laboratory tests and medical equipment were rated as outdated or insufficient, with emergency services described as ineffective by many participants. These findings confirm broader national challenges in Nigerian healthcare, particularly in public institutions, where underfunding, limited staffing, and outdated infrastructure undermine the quality of care.

B. Conclusion

Based on the findings of this study, it can be concluded that the Federal University Gashua School Clinic plays an important role in providing healthcare services to students and staff, but it faces serious challenges in terms of inadequate medicines, insufficient healthcare personnel, and limited availability of modern laboratory tests, medical equipment, and emergency care services. While a significant number of respondents acknowledged that services are sometimes available, the overall responses revealed that the clinic struggles to consistently meet the healthcare needs of its population. These gaps undermine the quality of care and may force patients to seek medical attention outside the clinic, leading to increased financial and psychological burdens. Therefore, urgent interventions are needed to strengthen the clinic's capacity in order to improve healthcare delivery and safeguard the health of the university community.

RECOMMENDATIONS

Based on the findings, the following recommendations were proposed;

1. The University management should prioritise the regular supply of essential drugs to ensure that both staff and students have uninterrupted access to necessary medications.
2. More qualified doctors, nurses, and laboratory personnel should be recruited and trained to bridge the gap in manpower and improve the quality of patient care.
3. The clinic should be equipped with modern laboratory tests and advanced medical equipment to enhance accurate diagnosis and timely treatment.
4. Emergency care facilities should be expanded and better equipped with necessary tools such as ambulances, oxygen supply, and resuscitation units to improve responses during health crises.
5. Regular funding and monitoring mechanisms should be instituted by the University in collaboration with the government to sustain improvements and ensure accountability.
6. Awareness programmes should be conducted to educate students and staff on the available services at the clinic and how best to utilise them to reduce reliance on external healthcare facilities.

REFERENCE

[1] Abubakar, I. (2022). Health system challenges and opportunities in Nigeria: A critical review of policies and practices. *Nigerian Journal of Health Policy*, 14(2), 45–57.

[2] Adamu, M. (2020). The impact of medicine unavailability on student health and academic performance in Nigeria. *Journal of Education and Health Promotion*, 9(2), 145–153.

[3] Adamu, Y. (2021). *Public–private partnerships and university healthcare delivery in Nigeria. International Journal of Policy and Development Studies*, 9(3), 97–110.

[4] Adebayo, T. (2020). Emergency healthcare response in Nigerian tertiary institutions: Challenges of staffing and preparedness. *African Journal of Emergency Medicine, 10*(3), 145–152.

[5] Adebayo, T. (2022). Essential drug supply and healthcare delivery in Nigerian universities: Challenges and prospects. *Nigerian Journal of Clinical Practice*, 25(4), 512–520.

[6] Adewale, K. (2021). Human resources for pharmaceutical care in university health services: Implications for rational drug use. *West African Journal of Pharmacy*, 32(2), 77–85.

[7] Afolabi, J. (2020). *Diagnostic services in university health centres: A neglected priority. West African Journal of Public Health,* 7(2), 45–57.

[8] Aregbeshola, B. (2021). Financing healthcare in Nigeria: Issues and prospects. African Journal of Social Sciences, 9(1), 88–104.

[9] Balogun, O. (2021). Access to essential medicines and academic productivity among Nigerian university students. African Health Sciences, 21(1), 343–351.

[10] Bello, K. (2022). *Healthcare workforce distribution in Nigerian universities: An assessment of personnel adequacy*. Nigerian Journal of Clinical Policy, 19(1), 33–49.

[11] Bello, R. (2021). Healthcare inequality in Nigeria: A study of medicine distribution in higher institutions. International Journal of Health Policy and Management, 10(6), 302–310.

[12] Bello, R. (2022). Human resources for health and the doctor-to-patient ratio in Nigerian universities: An evaluation of adequacy. *International Journal of Health Services, 52*(2), 233–248.

[13] Chukwuma, L. (2021). Procurement inefficiencies and drug shortages in Nigerian tertiary institutions. Journal of Health Systems Research, 7(3), 98–107.

[14] Eze, C. (2020). Recruitment gaps and healthcare personnel shortages in Nigerian university clinics. *Nigerian Journal of Medicine, 29*(4), 561–569.

[15] Eze, C. (2021). *Emergency service training gaps among healthcare providers in Nigerian tertiary institutions*. International Journal of Emergency Medicine, 11(4), 201–215.

[16] Eze, C. (2021). Stock-outs and medicine availability in university health centers: Evidence from South-East Nigeria. International Journal of Public Health, 13(2), 221–230.

[17] Eze, C. (2024). University health services in Nigeria: Gaps, challenges, and opportunities for reform. International Journal of Medical and Health Research, 16(3), 122–137.

[18] Garba, S. (2021). *Financing university health services in Nigeria: Challenges and policy options*. African Development Policy Journal, 8(1), 77–92.

[19] Ibrahim, A. (2020). Self-medication and the risks of counterfeit drugs among Nigerian students. Journal of Global Health Reports, 4(3), e2020105.

[20] Ibrahim, R. (2021). *Emergency preparedness in higher education institutions: Lessons for Nigeria*. Global Journal of Higher Education Research, 6(3), 142–160.

[21] Ibrahim, R. (2023). *University healthcare systems in Nigeria: A review of overlooked institutions*. Journal of Higher Education and Society, 10(1), 56–72.

[22] Idris, A. (2022). Preventive healthcare and staffing capacity in Nigerian universities. *Journal of Community Medicine and Primary Healthcare, 34*(1), 78–88.

[23] Johnson, P. (2022). *Role allocation and health system efficiency: A functionalist approach*. Sociology of Health and Illness, 44(2), 255–269.

[24] Lawal, F. (2022). Equity in access to medicines in Nigerian universities: Policy implications. Journal of Health and Development Studies, 14(4), 201–210.

[25] Lawal, M. (2020). *Budgetary constraints and university clinic development in Nigeria*. Journal of Public Sector Studies, 12(3), 188–200.

[26] Mohammed, S. (2022). Pharmacist shortages and implications for medicine management in Nigerian universities. Annals of African Medicine, 21(2), 112–119.

[27] Musa, A. (2021). Staffing challenges and patient access to healthcare in Nigerian university medical centers. *West African Journal of Health Sciences, 5*(2), 119–129.

[28] Musa, A. (2021). *The impact of inadequate health facilities on student academic performance in Nigerian universities*. Nigerian Journal of Educational Research, 23(2), 77–90.

[29] Nnamdi, O. (2021). Health inequalities in Nigerian universities: The role of under-resourced campus clinics. *Journal of Social Science and Public Health, 15*(2), 201–215.

[30] Nwachukwu, D. (2021). *Self-medication and health-seeking behaviour among Nigerian university students*. International Journal of Adolescent Health, 9(2), 101–116.

[31] Ogunleye, A. (2022). *Medical equipment and service delivery in Nigerian university clinics*. African Journal of Primary Health Care, 16(1), 21–34.

[32] Ogunleye, K. (2021). Brain drain and personnel inadequacy in Nigerian health institutions: Implications for university healthcare. *Annals of Global Health, 87*(1), 55–67.

[33] Ogunyemi, B. (2022). National drug policy and university healthcare delivery in Nigeria: A critical review. African Journal of Health Economics, 11(1), 56–65.

[34] Ogunyemi, F. (2022). *Health systems strengthening for higher education institutions in Nigeria*. Public Health in Africa, 5(1), 55–69.

[35] Okafor, J. (2021). Essential medicines and the Nigerian healthcare system: Policy versus practice. Nigerian Medical Journal, 62(2), 88–95.

[36] Okafor, L. (2021). *Health services and academic performance of undergraduates in Nigerian universities*. Journal of Education and Social Research, 19(2), 215–229.

[37] Okafor, L. (2022). *Institutional health systems and student retention in higher education*. Journal of Academic Development, 7(4), 299–314.

[38] Okechukwu, U. (2021). *Emergency health services in Nigerian university clinics: A situational analysis*. Nigerian Journal of Emergency and Primary Care, 6(1), 15–29.

[39] Okeke, H. (2020). *Maintenance culture and equipment functionality in Nigerian public health facilities*. Nigerian Journal of Biomedical Engineering, 5(2), 67–81.

[40] Okeke, L. (2022). Burnout, stress, and work conditions among healthcare personnel in Nigerian universities. *BMC Health Services Research, 22*(1), 112–124.

[41] Oladipo, Y. (2020). Inventory management practices in Nigerian university health centers. Journal of Health Management, 22(4), 456–468.
[42] Olowo, T. (2020). *Disaster preparedness and health service delivery in Nigerian universities*. International Journal of Crisis Management, 4(2), 80–95.
[43] Oni, B. (2020). *Diagnostic and therapeutic technologies in university healthcare systems: Comparative perspectives*. African Health Sciences, 20(3), 201–213.
[44] Onyeka, P. (2022). *Workload and diagnostic accuracy among laboratory personnel in Nigerian university clinics*. Journal of Clinical Laboratory Science, 18(3), 144–158.
[45] Orok, E. (2024). Utilization and perception of healthcare services among students in Nigerian universities. Journal of Public Health in Africa, 15(1), 33–44.
[46] Parsons, T. (2020). *The social system*. New York: Routledge Classics.
[47] The Guardian. (2024). Doctor-to-patient ratio in Nigeria falls below WHO standard. The Guardian Nigeria. Retrieved from https://guardian.ng
[48] Yusuf, H. (2021). Cost and affordability of medicines in Nigerian universities: A barrier to student health. International Journal of Health Economics and Policy, 6(2), 73–81.
[49] Yusuf, H. (2021). The absence of specialists in Nigerian university clinics: Implications for student health. *International Journal of Health Policy and Management, 10*(5), 289–298.
[50] Yusuf, I. (2021). *Mental health services in Nigerian universities: Challenges and opportunities*. Nigerian Journal of Psychiatry, 17(1), 33–46.