PERCEIVED AVAILABILITY AND UTILIZATION OF HEALTHCARE SERVICES IN TERTIARY INSTITUTIONS IN NASARAWA STATE

BY

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IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF EDUCATION IN HEALTH EDUCATION

DECEMBER, 2012.

DECLARATION

I hereby declare that this thesis has been written by me and it is a record of my own research work. This thesis has not been presented in any previous application for a higher degree. All quotations are indicated and all sources of information are acknowledged by means of references.

EMBU BULUS ENVULAPA Date…….

CERTIFICATION

This thesis entitled. **PERCEIVED AVAILABILITY AND UTILIZATION OF HEALTHCARE SERVICES IN TERTIARY INSTITUTIONS IN NASARAWA STATE** by Embu, Bulus Envulapa meets the regulation governing the award of the degree of Master in Health Education of Ahmadu Bello University, Zaria and it is approved for its contribution to knowledge and literary presentation.

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ABSTRACT

The purpose of this study was to evaluate the availability and utilization of healthcare services by demographic characteristics in tertiary institutions of Nasarawa state. To achieve this purpose, one thousand (1000) subjects, comprising six hundred (600) students, two hundred (200) academic and non academic staff and two hundred (200) healthcare workers and administrators were randomly selected from six tertiary institutions of Nasarawa state. Two sets of questionnaires (one set for all respondents and another set for healthcare workers and administrators) on availability and utilization of healthcare services were prepared and validated for content and face validity by juriors both within and outside the Faculty of Education, Ahmadu Bello University, Zaria. This was then administered on the respondents. Data collected for the study was analyzed, using descriptive statistics of frequency, percentage, mean, standard deviation(SD) and analysis of variance (ANOVA). All items were tested at 0.05 level of significance. The following are the findings of this study: (a) Availability and utilization of healthcare services in tertiary institutions in Nasarawa state were not adequate. (b) The respondents income level significantly affects their perception of availability and utilization of healthcare services (c) Non utilization of the healthcare services was as a result of certain factors which include; high cost of drugs and services offered, the healthcare system its and the attitude of the healthcare workers. The demographic characteristics of the respondents also had effects on the perception of the respondents on the various variables of healthcare services in tertiary institutions in Nasarawa state. On the basis of the findings, the following recommendations were made: Healthcare services should be expanded to take care of the increasing number of recipients in the tertiary institutions in Nasarawa state. There should be public enlightenment by the management of the various tertiary institutions to sensitize both staff and students on the available healthcare services so that they can be properly utilized.

Operational Definition of Terms

Some terms/words used in this research work need to be defined for purpose of easy understanding by those who will make use of thesis.

Medical Care Services: These refer to services that are provided by physicians or other types of medical practitioners, which take place in College Clinics/ Health Units, which aim at curing the sick. These services include diagnosis, treatment of various illnesses, consultation.

Healthcare Services: These refer to services that are made available for the protection and promotion of the health of both staff and student like screening tests, X-ray, immunization, treatment of various illnesses.

Utilization Factors: These are referred to those services that are likely to affect the use of healthcare services either positively or negatively. These factors include religion, traditional beliefs, long waiting time, non-belief in services rendered, time services are offered not being convenient, high cost of drugs and services rendered.

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CHAPTER ONE

1.1 Introduction

Good health is the basis on which social progress is built. A nation needs to promote good health status of her citizens in order to be productive and contribute positively to its development and progress of the country. In order to protect and promote the health of the individual, there should be availability of Healthcare Services for the protection, promotion and maintenance of the health of the individual as well as the treatment of diseases and ailments. All these can only be achieved if there are effective healthcare services for the people. These services if available and utilized will help in eliminating or reducing the health problems of the people in any given community.

Health, according to the World Health Organization (WHO, 1947) is a state of complete physical, mental and social well being of an individual and not merely the absence of disease or infirmity. In order to be healthy, one needs to have access to the necessary healthcare services. Health is said to be a state of wellness, it is dynamic and ever changing and not a static entity. It is the primary responsibility of everyone to promote and maintain his/her health status, which can be achieved through various means, like regular medical checkup, prompt treatment of diseases and disorders, eating of nutritious food, taking of vaccinations against various diseases, maintaining a good lifestyle and engaging in physical activities. However, in order to protect, promote and prevent diseases, it is necessary for adequate healthcare services to be available as the services can improve the health status of the people if and only when utilized adequately.

The health status of people in tertiary institutions should be of concern to the authorities that established such institutions. The need to protect the health of such people then calls for the establishment of healthcare services in tertiary institutions in Nigeria to cater for their health needs. The main purpose of any healthcare service is to meet the health needs of the people. Access to good health services should be a right of all citizens and not a privilege. The availability of adequate healthcare services to people should be a fundamental function of the government. The adequate availability of healthcare services is a manifestation of the interest the government has on the promotion and maintenance of health of the people.

According to Edson (2001), the University is committed to promoting, maintaining and improving the health and well being of the university community. That this mission can be accomplished by making available healthcare services that are appropriate, accessible, convenient and cost effective and by teaching the people healthcare conservation, illness prevention and health promotion.

Healthcare services are those services that are rendered by the professional health workers and auxiliary staff to those in need in order to protect, promote and maintain the health of the individual as well as preventing individual health from breaking down (Keywood, 1998). The need for effective health services in tertiary institutions is very obvious. Good health services enhance efficiency of staff members because any minor ill health problem that comes up is adequately taken care of. There is no group whose health is more important to the society than that of a group which makes up the staff and student of a school. There is constant interaction between staff and students. The health of the

staff directly affects the health of the students. Debilitating sickness of a staff member reduces the effectiveness to teach and thus prevents students from obtaining full value from their school experience. Equally, such a disease could be transferred to students if communicable.

According to Lee, Tsang, Lee and To (2003) good healthcare services need to be made available for the students to take care of their health so that they could achieve the goal of being in school. The students are a vibrant group whose health needs adequate care. They are a group of people still growing fast and everything should be done to protect their health. Most of the students are at the peak of their productive years and as such, they need adequate care of their health in order to meet their aspiration in life as well as to help build the society in which they find themselves. Most students in tertiary institutions are within the age range of 20-28 years. There is the need to take adequate care of the health of both staff and students because these people live together with others within the community.

People that live together either in schools and military camps are prone to and likely to suffer from communicable diseases if there is an outbreak of any disease. As such, the school should make available healthcare services for prevention and control of such diseases.

Health is said to be a state of wellness, it is dynamic and ever changing and not a static entity.This is possible through various means. In order to protect, promote the health of every individual and to prevent diseases, it is then necessary for adequate

healthcare services and the utilization of these services. The health services are both staff and student focused and should be provided in accuracy and professional manner.

"According to Iorvaa (2012), health is a major determinate of the social economic development of a people. These is based on the fact that all human endeavors require sound minds in sound bodies for full realization of aspirations." The realization of the full aspiration by an individual in terms of health can be achieved through making available effective healthcare services and adequate utilization of same.

According to Dorothy, Carla, Stolfi and Jaballas (2002), healthcare services provided through schools for many years, increasingly have expanded to meet preventive as well as acute health needs of students. The availability and proper utilization of the healthcare services help to control and prevent the spread of communicable diseases within an institution,

Health is wealth is a popular adage. The health of an individual is protected and cared for through making available the various healthcare services. It is not enough to make available healthcare services but there should be qualified people that will administer these services to those in needs so that the objective of setting them up can be achieved.

Fiscal and technical support can be found through many mechanisms. Many national organizations provide technical support for healthcare services in the form of guidelines and recommendations that will help in the upliftment of the services rendered. These services when available and utilized effectively will go a long way in improving the health status of the community, promote learning and efficiency.

1.2 Statement of the Problem

The availability and utilization of healthcare services to every community in Nigeria is very essential. This is because without adequate healthcare services and the proper utilization of same, the health of the people will be in jeopardy and will no doubt affect grossly productivity and national income. Availability of healthcare services and utilization promote and protect the health of the individual, as well as prevent the spread of diseases and other ailments that may affect the people. When the healthcare services are adequately available and utilized by the people, it helps in improving their health status, thereby reducing ill-health among the people, and this improves efficiency and productivity. Many researches have been conducted in other areas in respect to healthcare services but there are fewer on tertiary institutions, this then call for the need for this research.

Every society needs the best healthcare services for her people. The tertiary institution cannot be left out of this noble course. As a matter of fact, the tertiary institutions need to play a leading role in the provision of healthcare services to the people because of the enlightened nature of these institutions and the belief that they should be more health conscious because of their knowledge. It is not enough to make healthcare services available to the people but that the people should be able to utilize the services available. The utilization by the people makes it possible for the objective of the availability of these services to be achieved. Utilization of these services cannot be possible if these services are unacceptable and beyond the reach of the people. It is

because of these that this study thrusts to evaluate the availability and utilization of healthcare services in tertiary institutions in Nasarawa State.

1.3 Research Questions

1. Are there availability of healthcare services in tertiary institutions of Nasarawa State?
2. Do people in these tertiary institutions in Nasarawa State utilize the available healthcare services?
3. Do the demographic characteristics of the respondents affect the utilization of healthcare services in tertiary institutions in Nasarawa state?

1.4 Basic Assumptions

The research work was based on the following assumptions.

1 When adequate healthcare services are available in any institution, it will promote the health of the people in that community.

2 When appropriate healthcare services are utilized, it will promote the health status of the people

3 Demographic factors are a function of healthcare services utilization.

1.5 Research Hypothesis

Major Hypothesis:

Availability and utilization of Healthcare services in tertiary institutions in Nasarawa State are not significantly available and utilized.

Sub-hypothesis:

1. Healthcare services are not significantly available in tertiary institutions in Nasarawa State.
2. Healthcare services are not significantly utilized in tertiary institutions in Nasarawa state.
3. Demographic characteristics of the respondents do not affect their perception about availability of healthcare services in tertiary institutions in Nasarawa state.
4. Demographic characteristics of the respondents do not affect their perception about utilization of healthcare services in tertiary institutions in Nasarawa state.
5. There is no significant difference in the perception of healthcare workers and administrators on availability of healthcare services in tertiary institutions in Nasarawa state.
6. There is no significant difference in the perception of healthcare workers and administrators on the utilization of healthcare services in tertiary institutions in Nasarawa state.

1.6 Purpose of the Study

The purpose of this study was to assess the availability and utilization of healthcare services in tertiary institutions in Nasarawa state. The study focuses on the following specific purposes:

1. To determine the perception of both healthcare workers and administrators about utilization of services in tertiary institutions in Nasarawa State.
2. To assess the availability of healthcare services in tertiary institutions in Nasarawa State.

3. To assess the utilization of the healthcare services available for the people in tertiary institutions in Nasarawa State.
4. To determine whether demographic characteristics of the respondents affect the utilization of healthcare services in tertiary institutions in Nasarawa State.

However, several factors such as distance cost of drugs, non availability of essential services and the time which the patient has to wait to be attended to by healthcare workers may serve as constraints in the use of these services. Several studies have been conducted by different authors (Kent, Clark, Clasen, Stolfi and Jaballas (2002) Offiong (1999) and Kent and Sheetz, 2002) in the areas of accessibility, availability, affordability and utilization of healthcare services in the different segments of the society in Nigeria. To the best of my knowledge of these researches, no study has been conducted to ascertain the availability and utilization of healthcare services in tertiary institutions in Nasarawa state. This has prompted the researcher to conduct this study to find out the level of availability and utilization of healthcare services among staff and students of tertiary institutions in Nasarawa state.

1.7 Significance of the Study

It is a known fact that most Nigerians have no access to adequate healthcare services; the tertiary institutions are not exception. The importance of adequate healthcare services cannot be disputed, as health is the basis for achieving any meaningful development. Adequate availability and utilization of healthcare service help to promote the health status of the individual for more productivity.

It is with this in mind that the researcher undertook this study to stress the need and the importance for adequate availability of healthcare services particularly in tertiary institutions in Nasarawa state. This is to take care of the health problems of the people within these tertiary institutions. It is not enough for the services to be available, but these services have to be affordable, acceptable, effective and efficient in order for them to be properly utilized by those that they are meant for. This study also focuses on the overall objective of adequate healthcare services to the promotion of one's health which is a yardstick for efficiency and productivity. Many researches have been conducted in other areas in respect of healthcare services but there are few in tertiary institutions.

The research work will serve as a foundation on which other researchers can build upon.

1.8 Delimitation of the Study

The research work is focused on perceived availability and utilization of healthcare services in tertiary institutions in Nasarawa state. The study delimited to the following areas:-

1. Evaluation of the availability and utilization of healthcare services by demographic characteristics of the respondents
2. All students and staff (both academic and non academic staff) of selected tertiary institutions in Nasarawa state served as respondents in this study.
3. All healthcare workers in the selected tertiary institutions in Nasarawa state were involved in this study.

4. Only researcher's developed questionnaire was used as instrument for data collection in the study.

1.9 Limitation of the Study

The study was limited by the following factors:

1. There were no many literatures in the area of tertiary institution in respect to healthcare services.
2. Students in particular were expecting to be given a token before filling the questionnaire, thereby, causing a delay of time in finishing this work.
3. Many healthcare workers were not ready to give out vital information about their departments until they seek clearance from their superior officers. Some were not willing to give any information that they were going to expose their weaknesses to the public.
4. The administrators were not ready to fill the questionnaire as it exposes the quality of services provided for evaluation by the researcher, as such, it took several visits before this could be achieved, causing unnecessary delay in the completion of this work.

However, having listed the limitations of this study, to overcome these limitations, the researcher had to adopt the principles of diplomacy and persuasion to get back the copies of the questionnaire. This was done through a letter of appeal placed in strategic places in the institutions. Through this, most of the questionnaires were returned to the researcher.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The purpose of this study was to evaluate the perceived availability and utilization of healthcare services in tertiary institutions in Nasarawa State. For this purpose, the related literature was reviewed under the following sub titles:

2.2 Concept of Health.

2.3 Concept of healthcare services.

2.4 Healthcare System.

2.5 Determinants of utilization of Healthcare Services

a. Cultural factors.

b. Social factors.

c. Educational factors.

d. Gender.

e. Economic factors.

f. Geographical factors.

2.6 Availability of healthcare services

2.6a Utilization of Healthcare services.

2.7 Accessibility affects or determines utilization

2.8 Institutional care

2.9 Institutional health problems.

2.10 Summary.

2.7 The need for the provision of healthcare services.

2.8 Institutional care.

2.9 Institutional health problems.

2.2 Concept of Health

Health has been declared as a fundamental human right. This implies that the state has the responsibility for the health of its people. National governments all over the world have been striving to expand and improve their healthcare services to meet the health needs of their people. However, the current criticism against healthcare services is that they are:

1. Predominantly urban oriented.
2. Mostly curative in nature.
3. Accessible to only a small portion of the population. The concern for people in both developed and developing countries is not only to reach the entire population with adequate healthcare services but to also secure an acceptable level of health for all by the year 2000 and beyond through the application of primary healthcare programmes (Park, 1997).

In the late 60s and early 70s, the health situation of people especially in developing countries was adjudged very poor with widespread inequalities in health services and facilities between and within countries. This was inspite of availability of technology to address most of these health problems as well as efforts by these countries and W.H.O to improve the health status of the people.

The World Health Organization (WHO) therefore, responded in 1978 with the Alma Ata International Conference on Primary Healthcare which was endorsed as the key or strategy for the attainment of health for all by the year 2000 and beyond. The principles of healthcare services delivery in relation to availability, accessibility, acceptability and appropriateness that was clamoured for before the conference now become the major focus of primary healthcare services.

Health for all by the year 2000 and beyond cannot be attained without adequate availability of healthcare services for the entire country. Healthcare services should conform to the economic characteristics of a country and its communities, thereby, making preventive and curative services effective, acceptable, affordable and manageable.

The National Health Policy launched in 1988 contains the tenet that the attainment of the highest possible level of health is a most important goal, (Akinkugbe, 1990).

The policy based on primary healthcare was quite necessary due to the general poor state of health and healthcare services and status of Nigerians. Healthcare services are designed to meet the needs of the community through the use of available resources and knowledge. The services that are provided are to be comprehensive and community based. The basic challenge of any country today is to be able to meet the whole population with healthcare services and ensure that these are properly utilized. The main purpose of these healthcare services is to improve the health status of the people for more productivity and economic advantages.

In many countries, hospital based curative services have received the greatest amount of attention. This has created a paradox situation. Because of inadequate public health and primary healthcare services, patients with preventable diseases have often overloaded the hospital services so that tertiary care facilities are being used for primary care.

The availability of healthcare services should therefore aim at incorporating three overlapping spheres of activity of health promotion; these are health prevention, health protection and health education. A central principle is the empowerment of individuals, groups and communities.

Despite great advances in medicine and technology, the health status of a majority of people in the disadvantage areas of most countries of the world remains low. The seriousness of this problem is shown by the high morbidity and mortality rates that exist in these disadvantaged areas that still constitute 80-85% of the population of the world. Abdulraheem, Oladipupo & Amodu (2012) corroborate in view of the above that it is only then necessary to have comprehensive healthcare services to all parts of the country to help elevate the health status of the people.

Healthcare services at the international level are being undertaken by organizations like WHO, which is the major international health agency. It's services include helping countries all over the world to improve their health services. This can thus be accomplished in a variety of ways; may upon request, send a team of public health specialists to help control malaria in a particular country. This is aimed at

eliminating that health problem through adequate healthcare services to the people concerned. (WHO, expert committee reports, 1988).

According to WHO technical report (1988), lack of effective and adequate healthcare services affects the health status of citizens of a country. In such a circumstance, many health problems will be unattended to, resulting in deaths, disabilities and an effect on the economy of the country. Lack of adequate healthcare services results in unproductively or a reduction in the full capacity of the individual to function. One of a country's indexes of development is seen in her capacity to provide efficient healthcare services to her citizens that are accessible, affordable and utilized. For it is believed that a healthy nation is a wealthy nation. Healthcare services should be made available within a given geographical area with consideration of their relevance to the existing situation and acceptability to the population.

According to Israel, Ademiluyi and Sunday (2009), the organization of the federal government in the field of health has undergone many changes in recent years. These changes have resulted in the remarkable increase in government involvement, particularly in medical care and the delivery of healthcare services.

According to Lambo (1985) inspite of tremendous advances in medicine and technology, the health status of the majority of people in the disadvantaged countries of the world remains low. This is indicated by the high mortality and morbidity rates that exist in the rural areas that constitute 80% of the world population. In such areas, there are problems of communicable diseases, malnutrition, parasitic infections and others that continue to take a heavy toll on people's lives. The low health status of these people has

not only manifested its self in terms of morbidity and mortality but has also affected human development and the capacity of the individuals to develop their potentialities and live a productive life. Lack of adequate healthcare services to the people is one of the major health problems of Nigeria. Many people die from preventable diseases and other ailments that can easily be tackled with adequate healthcare services.

In the distribution of health services to provide for the medical needs of an entire nation or region, population has been the primary concern of all regional health planners. This is to enable the services cover the entire population of the area. High quality care is that which utilizes all the relevant knowledge and techniques available to the health sciences. The components of quality medical care include individual competence of medical care providers, availability of the equipment and auxiliary persons required to perform the most effective, preventive, diagnostic, therapeutic and rehabilitative procedures and the ability to gain the confidence of the patient and their cooperation with the demand of the medical treatment (Israel, Ademiluyi and Sunday 2009).

In the past, healthcare services were organized on strictly private basis and the cost was less. The diagnosis was based on the history and physical examination. Treatment was limited to nurture, a few medicines and much encouragement. But recent advances in medical technology have erratically altered this situation. Sophisticated diagnostic and therapeutic equipment are now provided for the care of certain diseases, which are very vital. Hospitals presently provide modern healthcare centers where diseases are dealt with in a more scientific manner. There are now better and quicker methods of diagnosis using scientific tools and more modernized healthcare services.

The success and accomplishment of any nation, community or individual in all spheres of life depends solely on the health status of its members. Low level of health status thus gives room for attack by various diseases. Low level of health status translates to waste of human resources and economic loss e.g. early deaths, absenteeism from duty and insufficient energy to withstand the daily requirements of discharging one's duties (Abbat and McMakon 2007).

Although individuals view the state of health in relation to their life activities; a standard in which health is measured exists. In order to set this standard of health, the World Health Organization (1947) gave a definition of health as a state of complete physical, mental and social wellbeing of the individual and not merely the absence of disease or infirmity. Health has three dimensions; physical, mental and social well being. Thus, this does not only mean the fitness of the body but also the soundness of mind and emotion which makes life worth living. However, some criticisms have been made against (WHO) definition on the ground that complete wellbeing for all is an unattainable goal.

According to Nolan (1999) WHO definition of health marked a watershed in the concept of health in that it delineated a clear shift away from the medically dominated idea of health as an absence of disease towards a holistic understanding of health which places the individual within a social and economic context. It can then be argued that WHO's definition is intended as a visionary one and thus should be used as a statement of intent. He further argued that yet this does not resolve the problem of how the ideal state of health can be judged to have been achieved. How universal is the concept of

health in this definition? Anthropologies in particular have argued that health is perceived differently in different cultures and general rules about health cannot easily be formulated.

Health means not only absence of disease but also optimum physical, mental and social wellbeing. Health connotes rather a way of functioning within one's environment (work, recreation, living). It does not only mean freedom from disease but also freedom to develop and maintain one's functional capacities. Health is developed and maintained through interaction between the genotype and the total environment (WHO expert committee, 1988).

2.3 Concept of Healthcare Services

Healthcare services should not be equated with medical care. Medical care is limited to the services provided by the physicians or other types of medical practitioners and this takes place in the hospitals, dispensaries, maternity clinics or the traditional healers home that aim basically at curing the sick. Healthcare services on the other hand, embrace not only the provision of medical care but also personal hygiene or environmental health, transportation for health services, drugs, health education of patients, nutrition, provision of portable water supply and better housing conditions. From this perspective, healthcare services correspond to a combination of preventive, curative and rehabilitative measures expected in a health system as defined in the global strategy for "health for all by the year 2000". This is in essence related to the eight essential elements of primary healthcare as defined by the declaration of Alma Ata (WHO, 1979). These include education concerning prevailing health problems and the

methods of preventing and controlling them, promotion of food supply and proper nutrition, an adequate supply of safe water and sanitation; maternal and child healthcare including family planning, immunization against the major infectious diseases, prevention and control of endemic diseases, appropriate treatment of common diseases and injuries; and provision of essential drugs (WHO, 1979).

2.4 Healthcare System

The health system is meant to deliver the healthcare services. The healthcare system constitutes the management sector and involves the organizational matter. This operates in the context of the socio-economic political life of a country. According to Park, (1997) the healthcare system in India is represented by five major sectors or agencies that differ from each other and the health technology that is applied as well as the source of funds that is used for operation. According to him, these include:

1. Public health sector: under this we have:
    a. Primary healthcare.

        Primary health centres

        Sub-centres

    b. Hospital/health centres: under this are:

        Community health centres

        Rural hospitals

        District hospital/health centres

        Specialist hospitals

        Teaching hospitals

c. Health insurance schemes: Under this are

   Employees state insurance

   Central government health scheme

d. Other agencies: Under this are:

   Defence services

   Railways

2. Private sector: The areas under this include:
   a. Private hospitals, polyclinics, nursing homes and dispensaries
   b. General practitioners and clinics.
3. Indigenous systems of medicine: Under this are:
   a. Ayrveda and Siddha
   b. Unani and Tibbi
   c. Homoepathy
   d. Unregistered practitioners
4. Voluntary health agencies
5. National health programmes

2.5 Determinants of Utilization of Healthcare Services

There are certain factors that determine the utilization of healthcare services.

Erinosho (1998) stated that there are a number of predisposing and/or enabling factors in the utilization of health services. These factors are classified as cultural, social, gender, economic and geographic.

a. Cultural Factors

According to (Erinosho, 1988), the concept of disease is determined by culture. Once culture incorporates belief systems, this in turn underlies the perception and interpretation of disease in a society. In the western world, the concept of disease is based on the germ theory. As a result of this, patients perceive diseases in terms of organic malfunctioning, which can be diagnosed with clinical techniques. This enables patients to accept western style healthcare services.

However, this notion of ill-health on disease contrasts with the belief system in non western traditional societies, where this is rooted in magic and religion. The incidence of disease is usually attributed to witchcraft and mystical forces. Patients in western societies are disposed to and tend to utilize cosmopolitan western healthcare services; those in traditional societies usually seek medical care from traditional healers. Cultural beliefs and practices often lead to self-care, home remedies. These factors result in delay in treatment. Family size, educational status, occupation, age, gender and marital status, all have effects on the utilization of service. Babar and Jaunita (2004).

b. Socio-Economic Factors

Several social factors determine how illness is acted upon and on the pattern of utilization of healthcare services; some of these factors are individual centred, while some are linked to health services. These individual factors deal with the interplay between the personal attributes of the users and decision making on the use of health services while sick. Some of the significant individual factors are sex, education, ethnicity, income and occupation.

According to Abdulraheem, Oladipupo and Amodu (2012) Nigerians tend to under use the services due to perceptions of poor quality and inadequacy of availability of service, traditional conservation, deep rooted traditions and customs, including health beliefs and practices.

In a study carried out by Katung (2001) on socio-economic factors responsible for poor utilization of the primary healthcare services in a rural community in Nigeria, the result shows that the major factors responsible for non utilization of the services are poor economic base which cannot afford the high cost of drugs and service charges as well as the unfriendly attitude of the healthcare workers.

Ogunlesi (2007) in a study on the pattern of utilization of prenatal and delivery service in Ilesa, Nigeria; it was discovered that high socio-economic status plays an important role in the utilization of healthcare services. That a family in the higher social class is more likely to appreciate the value of and adequately utilize the available orthodox healthcare services. He went further to say that people in the lower social classes have been reported to be socially disadvantaged. The implication of this social

disadvantage is principally the inability to take prompt and appropriate cost effective health decisions.

Many previous researches have elaborated on the role of these socio-demographic factors in the use of healthcare services. These studies showed that the utilization of health services is related to age, education, gender, religion, occupation and socio economic status Hauwa (2011). These factors influence the pattern of utilization of health services. In the context of Nigeria education and economic factor and gender are discussed in details below.

Hauwa (2011) highlighted the role of economic factors in the utilization of healthcare services. According to her, family income is an important determinant of the pattern of use of healthcare services; this is because each family takes the cost of health into consideration before any of her members seek for medical care. It is possible that people opt for costly services if they are convinced that they will receive prompt attention or will have quality care services. Patients do also avoid costly medical services that they cannot afford.

Recent studies have indicated that Nigerians prefer to use the more costly cosmopolitan private healthcare providers than those within the public sector (for those that can afford it). It is believed that more quality care is provided by the former (World Bank Report, 1990). On the other hand, illiterate patients are more prompt to the use of traditional healers because of the cost of cosmopolitan healthcare services.

c. Educational Factors

People that are formally educated are more likely to utilize western type healthcare services than those that are not educated at the onset of sickness or during ill-health. Non-literate Nigerian patients prefer to seek for treatment with traditional healers rather than the premises of cosmopolitan western style healthcare facilities because they find formalities like queuing up for cards, registration, physical examinations etc, strange, cumbersome and seemingly, alienating. This is in contrast to those that are formally educated and find the environment of the cosmopolitan western styles health facilities attractive, conducive and acceptable (Erinosho, 1998).

d. Gender

According to Erinosho (1998) recent studies have highlighted the following as behaviour of women when ill.

a. Nigeria women in some ethnic groups will not seek immediate help from healthcare agents when about to deliver babies unless they seek the permission of their spouses.
b. Others prefer to be examined by only female physicians or health workers or can only be assisted in child delivery by older women.
c. Women that have formal education are more likely to assume responsibility and take immediate steps to seek help for themselves and their children when ill than those that have little or no formal education.

The choice of a healthcare facility during ill-health may depend on one's perception about efficiency and the effectiveness of the services or the

providers as well as how suited the therapeutic milieu is to the social status of users.

e. Geographical Factors

Location is another factor that determines the utilization of healthcare services. Andrew (1999) reported that low income obstetrics patients are more likely to use clinics near their homes. Patients are more likely to use health services near their homes than those that are far because of travel, time spent, transport and other costs which normally require ensuring additional cost in the case of those that are far.

According to Helmot, Gibeltal, Ayualem, Mesin, Samuel and Dameu (2006) in a study of the pattern of utilization of antiretroviral treatment in Ethiopia, that high utilization was recorded among patients that had the facilities that gave out antiretroviral drugs close to their places of residence. This shows that the closer the patient is to the available healthcare service, the better the utilization

Okafor (1992) says proximity along with high incomes and participation in hazardous occupations are equally important determinants of use of healthcare services. Other researchers argue that the perceived quality care determines the utilization of healthcare services.

In the same vein, Carman (2003) says that the utilization of service depends on the predisposition to users (predisposition to the medical need). The predisposition component relates to demographic, social structure and the underlying condition. The enabling components include both family and where community obtains care. The need component involves an individual's perception of services and professional judgement.

According to Das et al (2001) who wrote on the experience of Indians, it is observed that among the socio-economic and demographic variables, a mother's education stands out as having the largest effect on the likelihood, that a mother will have institutional delivery. According to them, in each of the four northern regions in India and in the country as a whole, mothers who have completed at least middle school are three to four times more likely to deliver in a medical institution than illiterate mothers. That cast/tribe has significant influence on the utilization of medical services. That a woman who belongs to scheduled castes or tribe is less likely to deliver in a medical institution than are other women. According to them, after much research work on this, they came to the conclusion that a mother's education and exposure to mass media has significant effects in the expected direction.

According to their findings, it indicates that at this stage of India's development, it is not only physical availability of resources but demand variables such as education and media exposure which are the main factors.

2.6 Availability of Healthcare Services

Availability of healthcare services is essential for the overall development of the individual. Healthcare services have been available in schools for more than one hundred (100) years and they have been expanded to meet preventive as well as acute health needs of children (Dorothy,Carla, Adrienne, Stolfi and Elvira (2002). They went further to say that many public schools recognize the correlation between healthy students and academic performances and they offer a wide range of health services which include the following:

- Consultations
- Malaria treatment
- Worms infection treatment
- Typhoid fever treatment
- Pneumonia treatment
- Diarrhea treatment
- Emergency services
- Stress management
- High blood pressure management
- Sexually transmitted infections treatment
- Skin diseases treatment
- Ear, eye and teeth diseases/infections treatment
- Pre-natal and antenatal services
- Nutrition education
- Maternal and child welfare services
- Headache and fever treatment
- Laboratory services
- Scanning services
- First aid services
- Diagnostic services
- Antenatal and postnatal services for all pregnant women
- Vaccination/inoculation services

All these services are designed to take care of the health of the people within the school environment so that they function effectively in the discharge of their duties. It is believed that healthy children are better learners.

According to UNFPA(2010), a report on the healthcare services in UNFPA assisted states in Nigeria, that for effective delivery and utilization of healthcare services, the following should be available:

- Availability of essential drugs and consumables.
- Availability of maternity equipment.
- Availability of functional means of transport.
- Availability of qualified and adequate staff in all the sub sections of the healthcare services.

According to Lee, Tsang, and To (2003), Health prospects are at least in part determined by the educational opportunity and achievement and learning outcomes are often dependent upon health status. This can only be achieved if there is availability of adequate healthcare services and proper utilization of same.

According to Nancy, Gale, Martha and Mary (2001) healthcare services are designed to meet the health needs of the community through the effective use of available knowledge and resources. The provision of healthcare services to any community or organization is to prevent the occurrence of any breakdown of health or to prevent disease(s) from occurring. It is also meant to protect and promote the health of the individual. Health promotion has been defined as the process of enabling people to increase control over and to improve their health. To reach a stage of complete physical,

mental and social well-being, an individual or group must be able to identify and realize aspirations, to satisfy needs and to change or cope with the environment: (WHO Expert Committee, 1997). Health promotion then is continuous, ranging from the treatment of diseases to the prevention of diseases including protection against specific risks, to the promotion of optimal health. The healthcare services are provided in order to achieve optimal health by the individual in a given community (Oberteuffer, 2001).

According to Dorothy, Carla, Andrienne and Elvira (2002) and Israel, Ademiluyi and Aluko-Arowolo (2009) have all agreed that many diseases could be prevented or controlled through the primary healthcare, by the use of immunizations, simple indications, environmental alternations and health education for the people. If people are properly educated they will engage in activities that will help or protect and promote their health. Through proper health education, the people will be able to know the right type of food to eat that will promote growth and prevent certain diseases. The availability of healthcare services play a big role in preventing diseases, in making the world a healthier place to live, teaching and encouraging all, the healthy as well as the sick, to care for their own health through the use of available health resources, (Keywood, 1998), the availability of healthcare services makes a difference between health and disease or ill-health.

According to Nancy,Gale,Martha and Mary (2001) “the importance of providing healthcare services to students is widely recognized. School health services do not provide healthcare to students who might not have access to care but because all children’s abilities to succeed academically and socially are linked to their physical and

mental health; school's role in healthcare services are related to the educational mission of schools".

Availability of healthcare services is for health promotion and disease prevention education. The services are available to take of the medication of student in schools and to provide care for student with special health needs.

According to WHO/ UNESCO/UNAIDS/Educational International (1998), making the case for HIV/AIDS prevention through schools. That the goal for making available HIV/AIDS education program in schools is to create awareness to both student and staff on the benefit of HIV/STI prevention interventions and other related health promotion activities.

Dorothy et al (2002) reported that parent place a high value on healthcare services offered in schools. That many public schools recognize the correlation between healthy students and academic achievement and as such, they offer a wide range of services which include well-child physical examinations, access to school based health centre providing acute care to student at school and active solicitation of community health resources to meet individual family needs. Basic school health services usually provided include screening for medical conditions, administration of prescribed medication, assessment for acute and contagious condition, administration of first aid, health education and promotion activities, assessment of students immunization status and maintenance of school health record.

Several studies have examined school health systems and parents follow up to referrals made as part of school health screening. Evidence suggests that access to school

based health center improve healthcare access and use for underserved minority school children.

According to Hauwa (2011), for the available healthcare services to be effectively utilized, there has to be a corresponding number of skilled healthcare workers available to administer the services to the people in need. It is only when the available services reach the people that it will make for any health promotion of the people concerned.

Sheetz (2002), states that the need for making available healthcare services to students in school is paramount to their development and education. The need for these services stem from increased number of students with special healthcare needs attending school, increased stress and time pressure on families, recognizing that the schools provide opportunities to identify students with health risks.

Isreal and Sunday (2009) indicated that availability and access to healthcare services in Nigeria has favoured the urban population to the expense of the rural settlers and that the health services in the country has tended to be place on three pedestals of primary secondary and tertiary health institutions for rural, mixed population and urban elite respectively. That the non availability of specialized services in rural areas makes it impossible for the rural dwellers to get the desired healthcare services needed when the need arises.

2.6a Utilization of Healthcare Services

Availability and utilization of healthcare services are therefore very indispensable for rapid economic development for any country in the world. This is because for all human societies, no matter what level of development they are, the availability of appropriate healthcare services among other things, determine to a large extent, the socio-economic development of the people (Erinosho, 1998).

According to Babar and Jaunita (2004), "strategic policy formulation in all healthcare systems should be based on information relating to health promotion, seeking, utilization and the factors determining these behaviors." All such behaviors occur within some institutional structures such as the family, community or he healthcare services itself. The factors determining the health behaviors may be seen in various contexts. These include physical social economy, cultural and political. As such, the utilization of a healthcare system may depend on social demographic factors, social stricter, level of education, cultural beliefs and practices, gender discrimination, economic and political system the disease pattern and healthcare system itself.

Babar and Jaunita (2004), further stated that a variety of factors have been attributed as the leading causes of poor utilization of primary healthcare services. These factors include poor social economic status, lack of physical accessibility, cultural beliefs and perceptions, law literacy level of the mother and large family size.

In a study carried out by Katung(2001), on social economy factors responsible for poor utilization of the primary healthcare service in a rural community in Nigeria, the major factors that caused non attendance to the available services in the LGA included

the high cost of drugs and service charged, easy access to traditional healers, difficulty in getting transport to a health facility.

Hauwa (2011) states that the factors affecting the utilization of maternal healthcare services in developing countries include social demographic characteristics, culture, availability and accessibility of the services, income level, education, ethnicity, age, parity and decision making power to utilization of maternal healthcare services.

According to Nancy, Gale, Martha and Mary (2001), have identify three core function of a school health program, these include direct patient care such screening, diagnostic, treatment and health counseling. As such, the school health services can be effectively utilized to achieve these objectives.

Dorothy, Carla, Adrienne, and Elvira (2002) all agreed that school health services have existed for more than one hundred years., this is to be utilize for the control of the spread of communicable diseases and the healthcare services have expanded to meet other acute, chronic and preventive health needs.

Ogunlesi (2005), in a study under taken on the pattern of utilization of primary and delivery services in Ilesa, Nigeria, indicated poor utilization of the services available was as a result of religious and financial reasons. That also, non utilization of prenatal services and home delivery were significantly higher in the lower social class. According to him, prenatal mortality reflects the quality and utilization of prenatal, delivery and immediate post delivery care that are available to women and their new born babies.

According to Erinosho (1998), utilization of healthcare services is expressed as the proportion of people in need of a service who actually receive it in a given time.

Similarly, Hauwa (2011) says that factors influencing the utilization of maternal healthcare services are demographic characteristics, culture, availability and accessibility of the service.

Utilization of services can be evaluated in two perspectives:

a. Utilizers of services
b. Providers of services

a. **Utilizers of Services**: This group has need for the service and decides where to go for it. The choice is determined by distance, range of services available, cost and perceived benefits to be derived from the use of services. There are others that are referred to, as the non-felt needs. These are services that are introduced into the utilizers for his health improvement, of which the individual may or may not know that, he needs them. Such services include immunization services, health education and family planning. Therefore, these services have to be accessible, affordable and acceptable to the individual and the community (Erinosho, 1998).

Proper utilization of healthcare services is a reflection of the quality of services provided.

2.7 Accessibility Affects or Determines Utilization

The two main aspects of utilization of service include:

a. Physical accessibility – This is a first priority and defines closeness of service to the people in terms of distance and time.

b. Economic accessibility – This refers to the ability of an individual to pay for the services rendered. However, service may be available but neither the individual nor the community can afford it, then it becomes inaccessible and cannot be effectively utilized.

2.8 Institutional Care

WHO's goal for health for all brought about a more profound dimension to the concept of health, it includes individuals as well as populations; the maintenance and promotion of wellbeing, the prevention of illness, the treatment of diseases and the rehabilitation of the injured (World Health Assembly, 1984).

Institutional healthcare services are meant to protect and promote the health of both staff and students in an institution. In most tertiary institutions, we have what we call school health clinics that make available primary healthcare services. The school health clinics usually have few departments, which include record office, laboratory/pharmacy department, consultation office, maternity unit and sometimes resting rooms with a few numbers of beds. This is to take care of people who may need bed rest for some few hours or before referral is given (Sheetz, 2002).

According to Skidmore (1997) unless the health of children is accounted for, the full benefits of education cannot be gained. In the same vein, Davey, (1993) said that

there is no group whose health is more important than the group who make up the staff of the school. There is constant contact between staff and students. The health of the staff directly affects the health of the students. Debilitating sickness of a staff member decreases effectiveness to teach and this prevents students from obtaining the full value from their school experience (Davey, 1993). All these can be achieved through the availability of healthcare services.

The need for effective healthcare services to any community cannot be over emphasized. The tertiary institution have large number of people with different health needs which have to be taken care of for maximum productivity and progress in their various learning activities. These services need to be provided to take care of both staff and students' health problems. Unless the health of students is accounted for, the full benefits of educational provision cannot be gained. It was for the realization of this that prompted the establishment of school health services in 1907, (Skidmore, 1997). Once there is an adequate and effective healthcare service in the tertiary institutions, all will feel secure, productivity will be enhanced as well as effective learning.

Babson (2001) stated that for health services to be properly utilized, they have to be assessed in terms of three (3) process measures; accessibility, quality integration and efficiency. According to him, these elements that have been mentioned are felt to be sufficiently comprehensive to serve as indication of the adequacy of the medical activities.

According to Maurice (2004), the university healthcare services are meant to promote, maintain and improve the health and wellbeing of the university community.

This mission is accomplished by making available primary healthcare services that are appropriate, accessible, to students at school and active solicitation of community health resources to meet individual family needs.

2.9 Institutional Health Problems

The common health problems usually experienced in most tertiary schools include: malaria, worm infection, pneumonia, typhoid fever, diarrhea, stress, sudden injuries (sports injuries) sudden illness, high blood pressure, sexually transmitted infections, skin diseases, ear and eye diseases, teeth infection or diseases, tuberculosis, food poising, indigestion, etc.

The tertiary institutions healthcare services need to be well equipped to be able to effectively handle the above health problems they usually encounter and others that are not mentioned here (Brener, 2001).

2.10 Summary

The need for institutional health services cannot be over-emphasized. This forms the basis for good health promotion and academic progress of students. The institutions need to have adequate healthcare services to take care of the health needs of both staff and students.

In this review, it has been observed that appropriate availability and utilization of healthcare services are very indispensable for rapid economic growth of any country. According to Erinosho (1998) utilization of healthcare services is expressed as the proportion of people in need of service who actually receive it in a given time. According to him, utilization of service can be evaluated in two perspectives; providers

of services and utilizers of service that these services have to be accessible, affordable and acceptable to the individual and the community. Erinosho (1998) further stated that there are a number of predisposing and/or enabling factors in the utilization of healthcare services. These are classified as cultural, social, gender, economic and geographical.

According to Okafor (1992), proximity along with high income and participation in hazardous occupations are equally important determinants of the use of healthcare services. Other researchers argued that the perceived quality care determines the utilization of healthcare services.

According to Parks (2000) healthcare services are designed to meet the health needs of the community through the effective use of available knowledge and resources.

According to Clark (2002) many public schools recognize the correlation between healthy students and academic performance and they therefore offer a wide range of healthcare services to meet the needs of the students.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The purpose of this study was to evaluate the availability and utilization of healthcare services in tertiary institutions in Nasarawa state. To achieve this purpose, the research design, population, sample and sampling procedure, the instrument and the statistical techniques used are discussed in this chapter.

3.2 Research Design

For the purpose of this study, the ex-post facto research design was used, because the information for the data was already available with the respondents. Therefore, in this research design, a questionnaire containing statements on various aspects of availability of health care services and utilization was administered to both staff and students of the institutions in Nasarawa state.

3.3 Population

The population for this study comprised of all staff and students of tertiary institutions in Nasarawa State, irrespective of age, gender, or religious background. There are eight (8) tertiary institutions in Nasarawa state as at October, 2011, with the total population of 10,000.

S/N	Name of Institution	Total Population
1.	Nasarawa State Polytechnic Lafia.	1830
2.	Nasarawa State College of Agriculture, Lafia	1500
3.	School of Nursing and Midwifery, Lafia	180
4.	Nasarawa State College of Education, Akwanga.	3120
5.	School of Health Technology, Alushi, Akwanga.	300
6.	Nasarawa State University, Keffi.	3000
7.	School of Health Technology, Keffi.	150
8.	Federal Polytechnic, Nasarawa	2350
	Grand Total	10,000

Source: (Establishment and the Academic Offices of the various institutions).

3.4 Samples and Sampling Technique

The sample size used in this study was one thousand (1000) respondents. This comprised of the academic and non-academic staff, students, healthcare workers and administrators randomly selected from the tertiary institutions selected in Nasarawa state. The sample size represented 10% of the total population. According to Gay, (1992) in determining sample size from a given population, 10% is adequate for true representation of the entire population.

Stratified random technique was used to select six (6) institutions that were used for the research. The stratification was based on the already existing senatorial zones in the state.

Two (2) tertiary institutions were randomly selected from each of the senatorial zone, giving a total of six (6) institutions. In this selection, all the names of the tertiary institutions were written on pieces of papers folded and dropped in a cap. Two (2) institutions were blind foldedly picked from the cap. This method was repeated for the remaining zones, and thus a total of six (6) tertiary institutions wee picked. The names of the institutions in each of the zones and the institutions picked are shown on the table below:

Table 1 – Names of the tertiary institutions and the selected institutions according to senatorial zones.

Zone	**Institutions Available**	**Selected Institutions**
Nasarawa West Senatorial Zone	a. Nasarawa State University, Keffi. b. School of Health Technology, Keffi. c. Federal Polytechnic, Nasarawa.	a. Nasarawa State University, Keffi. b. School of Health Technology, Keffi.
Nasarawa North Senetorial Zone	a. College of Education, Akwanga. b. School of Health Technology Alushi, Akwanga.	a. College of Education, Akwanga. b. School of Health Technology Alushi, Akwanga.
Nasarawa South senatorial Zone	a. Nasarawa State Polytechnic, Lafia. b. College of Agriculture, Lafia. c. School of Nursing, Lafia.	a. Nasarawa State Polytechnic, Lafia. b. College of Agriculture, Lafia

After the stratified sampling of the zones, each of the three groups of respondents was represented in the sample that is academic and non academic staff, healthcare workers, administrators and students. The table below shows the various institutions, their total population and the number sampled.

Table 2 – Names of selected tertiary institutions, their total population and the number sampled.

S/N	Institution	Total Population	Number Sampled
1.	Nasarawa State University, Keffi.	3000	300
2.	School of Health Technology, Keffi.	150	25
3.	College of Education, Akwanga.	3120	312
4.	School of Health Technology Alushi, Akwanga	300	30
5.	Nasarawa State Polytechnic, Lafia.	1830	188
6.	College of Agriculture, Lafia	1500	150
	Total	10,000	1000

From the total population of the institutions, students constituted seven thousand (7000) academic and non-academic staff three thousand (3000). As it has been indicated earlier the healthcare workers and administrators are a special group in this research work as a result the have been grouped separately. From the three thousand (3000) academic and non-academic staff, healthcare workers and administrators constituted five hundred

(500). Out of this total, one thousand (1000) respondents were used as sample size for the study.

Random sampling technique was used in the selection and distribution of the questionnaire to respondents. The researcher made use of table of random numbers to select the sample size. This method involves minimization of sampling bias. (Nnmadi, 2002). A table of random numbers contains numbers chosen without human intervention, as such; every member has a chance of appearing in the selection. In this research, every odd member was selected that is one (1), three (3), five (5), seven (7). The odd number was used to select the sample size. This was done until all the copies of the questionnaire were exhausted. Although the healthcare workers and administrators are staff, but are special in respect to this research, that is why they have been grouped differently because they are directly involve in the administration and rendering of healthcare services

Out of the 1000 sample size, the following was the total number of the respondents and the percentages for each of the groups.

a. No. of Students =550 , percentage = 55%.

b. No. of academic and non academic staff =250, percentage = 25%.

c. No. of Healthcare workers and administrators =200, percentage = 20%.

Total = 1000 (100%). This represented the sample size.

3.5 Instrument for Data Collection

The researcher for the purpose of data collection developed a questionnaire. The Questionnaire contained statements on various aspects of availability and utilization of healthcare services, which was administered to both staff and students in tertiary

institutions in Nasarawa State. The respondents were asked to tick their responses in the appropriate column. The questionnaire covered such areas as the availability of health care services, the utilization of such services as well as utilization factors. The questionnaire has two major sections; A & B. Section A contained six (6) statements that solicited for the demographic information of the respondents. This section has such information as age, marital status, number of children, occupation, level of education, religion.

Section B was divided into three sub-sections. The first sub-section consisted six (6) items used to determine the availability of health care services in tertiary institutions in Nasarawa State. The second sub-section consisted of six (6) items to determine the utilization of healthcare services in tertiary institutions in Nasarawa State. While the third sub-section consisted of nine (9) items to determine the availability of healthcare services in tertiary institutions in Nasarawa State as well as hours of service delivered as perceived by healthcare workers and administrators. The statements in section B, and sub-section B1, B2 and B3 were rated on a five point Likert scale, using strongly agree, agree, undecided, disagree and strongly disagree. Sections A was for all respondents B and C were for academic and non academic staff and students, while sections D and E were for healthcare workers and administrators only.

The scores for positive statement were as follows:

Strongly agree = 5 points

Agree = 4 points

Undecided = 3 points

Disagree = 2 points

Strongly disagree = 1 point

This method of categorization has been used in other similar previous studies (Adamu, 1988. The Likert Scale was chosen because it is appropriate for determining what an individual believes, perceives or feels. It is also useful in measuring self-perception, order and a variety of activities and situations (Gay, 1992).

3.6 Validation of Research Instrument

In validating the research instrument, the researcher presented a draft copy of the questionnaire to the supervisors for correction of the items stated based on the variables of the study. After their corrections and necessary input, all the corrections and the suggestions of the supervisors were adhered to, hence a clean modified copy of the questionnaire was produced, submitted back to the supervisors and satisfied. Five (5) copies of the corrected questionnaire were then sent to five (5) juriors who are specialists in Health Education within and outside the Faculty of Education, Ahmadu Bello University Zaria. These juriors vetted the instrument for its face and content validity. Their comments and suggestions were then taken into consideration in the final draft of the questionnaire, which was administered to the respondents of the study.

3.7 Administration of the Questionnaire

Prior to the administration of the research instrument, the researcher employed the services of four (4) research assistants. They were well briefed and adequately instructed on how the questionnaires were to be filled by the respondents. The research assistants

helped in the distribution of the questionnaire and in interpretation of the items to the respondents where necessary.

Before the administration of the questionnaire the researcher wrote for permission from the provost, rector and principles from the school of health technology and nursing and midwifery, informing them of his intension to carry out a research titled “Perceived availability and utilization of healthcare services in tertiary institution in nasarawa state involving both staff and student of their respective institutions

The four research assistants took charge of one tertiary institution each and the researcher took charge of two tertiary institutions. The distribution of the questionnaire to the respondents and the collection after they had been filled were done within four (4) days by the researcher and his assistants. The researcher and his assistants distributed the questionnaire using the random sampling technique in which every odd number was selected. This was done continuously until the sample size of one thousand (1000) respondents was gotten.

In summary, the total numbers of questionnaire distributed to these institutions are shown in the table below:

Table 3 - Number of Questionnaire Distributed

S/N	Zone	Institutions	Students	Academic/non academic staff	Healthcare workers/ Administrators	Total
1.	Western senatorial Zone	Nasarawa State University Keffi	165(55%)	40(24%)	40(24%)	245
2.		School of Health Technology, Keffi	40(60.7%)	10(30.4%)	24(9.09%)	66
1.	Northern Senatorial Zone	College of Education, Akwanga	122(61%)	40(29%)	40(10%)	200
2.		School of Health Technology, Akwanga	35(34.31%)	35(58.82%)	23(0.86%)	102
1.	Western southern senatorial Zone	Nasarawa State Polytechnic, Lafia	123(61.19%)	40(28.85%)	38(9.95%)	201
2.		College of Agriculture, Lafia	115(61.82%)	35(29.56%)	35(0.6%)	186
		Total	600(60%)	200(20%)	200(20%)	**1000**

Out of the 1000 copies of the questionnaire distributed, 825 copies were retrieved, representing 82.5%. This was the number that was used for the statistical analysis.

3.8 Statistical Analysis

The data collected for this study were analyzed statistically, using the Statistical Package for Social Sciences (SPSS). The statistical techniques used in analyzing the data were:

a. Descriptive statistics of frequencies and percentages for demographic information.
b. Mean and standard deviation (SD) to get the mean scores of the various variables of healthcare services.
c. Analysis of variance (ANOVA) was used to test for differences among the respondents in their perception of availability and utilization factors of

healthcare services by demographic characteristics. 0.05 level of significance was used for all statistical tests. According to Nnmadi (2001) all educational statistical analyses use 0.05 level of significance because this deals with humans and it is not predictable.

CHAPTER FOUR

RESULT AND DISCUSSION

4.1 Introduction

The purpose of this study was to evaluate the availability and utilization of healthcare services in tertiary institutions in Nasarawa state. The study was conducted on two sets of respondents. One set consisted of academic, non academic staff and students and the second set consisted of healthcare workers and administrators. To achieve this purpose, the data collected was statistically analyzed and the results are presented and discussed in this chapter.

A total of 1000 copies of the questionnaire were made available for the study. Out of this number, 825(82.5%) were found to be useful for meaningful statistical analysis. This was the number of questionnaire that were filled and returned to the researcher. The number was found to the adequate for this study, as according to Gay, (1992) determining sample size from a given large population, 10% is adequate for the true representation of the entire population.

4.2 Results

Table 4.1: Demographic Characteristics of academic, non-academic staff and students.

Age	Frequency	Percent
16-25yrs	199	24.12
26-35yrs	395	47
36-45yrs	194	24
46-55yrs	32	3
Total	**820**	**98.12**
Missing	3	1.88
Marital status		
Single	210	26.5
Married	580	70.6
Separated	15	1.02
Divorced	3	0.3
Widowed	10	1.4
Total	**821**	**99.82**
Missing	3	
Number of children		
1-2	342	52.06
3.4	215	37.8
5-6	63	8.7
7 and above	6	0.9
Total	**626**	**99.46**
Missing	12	0.54
Position		
Academic	160	20.4
Non-academic	204	24.9
Student	450	54.7
Total	**823**	**100**
Missing	9	
Religion		
Christian	420	51.9
Muslim	392	48.27
Total	**812**	**99.97**
Missing	9	0.3
Socio-Economic Status		
No income	260	32.6
Low income	275	34.28
Medium income	138	29.67
High income	29	3.61

Total	**802**	**100**
Missing	31	

Table 4.1 shows that most of the respondents (47%) were between 26-35 years of age. They were mostly married (70.6%). Majority of them had either 1-2 (52.06%) or 3-4 (37.8%) children. Majority of them were either students (54.7%) or non-academics, (24.9). They were both Christian (51.9%) and Muslim's (48.27%). Majority of them belonged to low income group (34.8%), no income (32.6%), high income (3.61%)

Hypothesis Testing

Major Hypothesis: Availability and utilization of healthcare services in tertiary institutions in Nasarawa state are not significantly available and utilized

Sub hypothesis I: Healthcare services are not significantly available in tertiary institutions in Nasarawa state.

Sub hypothesis II: Healthcare services are not significantly utilized in tertiary institutions in Nasarawa state.

Sub hypothesis III: Demographic characteristics of the respondents do not affect their perception about availability of healthcare services in tertiary institution in Nasarawa.

Sub hypothesis IV: Demographic characteristics of the respondents do not affect their perception about utilization of healthcare services in tertiary institution in Nasarawa.

Sub hypothesis V: There is no significant difference in the perception of healthcare workers and administrators on availability of healthcare services in tertiary institution in Nasarawa state.

Sub hypothesis VI: There is no significant difference in the perception of healthcare workers and administrators on the utilization of healthcare services in tertiary in Nasarawa state

The purpose of this study was to assess the perceived availability and utilization of healthcare services in tertiary institutions in Nasarawa state, it became essential to investigate the kind of healthcare services available and how these healthcare services are utilized by the academic, non academic staff, students, healthcare workers and administrators. For this purpose, sub-hypothesis one to four were formulated. Accordingly, to test sub-hypothesis one to four, the mean scores of responses for various aspects of availability and utilization were computed, hence the results are shown in table 4:2a.

As the responses were on a five (5) point Likert Scale, mean score of any response is considered positive, if it is 3.5 and above.

Table 4.2a: Mean and standard deviation of availability of healthcare services according to demographic characteristics of the respondents.

	Characteristics	N	M	SD	SE
1.	**Age**				
	16-25yrs	196	3.1990	.68403	.04886
	26-35yrs	252	2.9405	.77846	.04904
	36-45yrs	153	2.7255	.97149	.06239
	46-55yrs	21	2.7143	.46291	.10102
	Total	**622**	**2.9614**	**.7641**	**.03049**
2.	**Marital**				
	Single	201	3.1493	.87041	.06139
	Married	394	2.8401	.68597	.03456
	Separated	15	3.6000	.50709	.13093
	Divorced	3	3.0000	.00000	.00000
	Widowed	9	3.0000	.00000	.00000
	Total	**622**	**2.9614**	**.76041**	**.03049**
3.	**No. of children**				
	1-2	259	3.0232	.60955	.03788
	3-4	139	2.8921	.66693	.05657
	5-6	45	2.9333	1.07450	.16018
	7 and above	12	1.5000	.90453	.26112
	Total	**455**	**2.9341**	**.93314**	**.03439**
4.	**Position**				
	Academic	140	2.8929	.66459	.05617
	Non-academic	58	3.0517	.68627	.09011
	Student	418	2.4713	.80415	.03933
	Total	**616**	**2.9611**	**.76110**	**.03079**
5.	**Religion**				
	Christianity	397	2.8942	.78102	.03920
	Islamic	213	2.0986	.65491	.04487
	Total	**610**	**2.9606**	**.74529**	**.03018**
6.	**Income level**				
	No income	254	3.2450	.78360	.04197
	Low income	200	2.8200	.64784	.04581
	Medium income	132	2.5687	.69010	.06007
	High income	15	3.6000	.50709	.13093
	Total	**601**	**2.96579**	**.97059**	**.03143**

Table 4.2a above shows the mean score for age16-25 years was 3.1990, that of 26-35 years range was 2.9405, the age range of 35-45 years was 2.7255, for 46-55 years age range, was 2.7143. All these are not significant as they were all below 3.5.

For the variable of marital status, the mean score for single respondents was 3.1493 for those that were married, the mean score was 2.8401, and the separated had a mean score of 3.6000, the divorced had a mean score of 3.000 and the widowed had a mean score of 3.000 . In this variable of marital status, only separated had a mean that is significant. Majority responses had the mean that is not significant.

In the case of number of children, those with 1 – 2 children had a mean score of 3.0232, 3 – 4 children had a means score of 2.8921, 5 – 6 children, had a means score of 2.9933 and those with 7 children and above had a mean score of 1.5000. All these mean scores are not significant.

For the various positions, academic staff had a means score of 2.8929, non academic staff, 3.0517 and students had a means score of 2.4713.

On the aspect of religious affiliations, Christians had a mean score of 2.8942 and Muslims had a mean score of 2.0986.

For the income level, there is no income group had a mean of 3.2450, low income group, 2.8200, medium income group, 2.5687 and high income group, 3.6000. As it can be seen, only the high income group earners viewed the

availability of service significant. Majority of the income level viewed the availability as insignificant.

Table 4.2b: Mean and standard deviation of utilization of service according to demographic characteristics of the respondents.

	Characteristics	N	M	SD	SE
1.	**Age**				
	16-25yrs	196	.2296	.57588	.04113
	26-35yrs	243	3.0000	.78730	.5057
	36-45yrs	153	2.9020	.99845	.08072
	46-55yrs	21	2.4086	.74642	.16288
	Total	**613**	**3.0294**	**.80386**	**.03247**
2.	**Marital**				
	Single	201	3.2090	.8226	.05800
	Married	385	2.9065	.78501	.04001
	Separated	15	3.6000	.50709	.13093
	Divorced	3	3.0000	.00000	.00000
	Widowed	9	3.3333	.50000	.16667
	Total	**613**	**3.0294**	**.80356**	**.00000**
3.	**No. of children**				
	1-2	250	3.0480	.70973	.04489
	3-4	139	2.9784	.73869	.06250
	5-6	45	3.2667	.07450	.16018
	7 and above	12	1.500	.90453	.26112
	Total	**455**	**3.0067**	**.08863**	**.03829**
4.	**Position**				
	Academic	131	3.9771	.92375	.08071
	Non-academic	58	3.1034	.64044	.08409
	Student	418	3.0359	.79032	.03866
	Total	**616**	**3.0297**	**.80783**	**.03279**
5.	**Religion**				
	Christianity	388	2.9691	.83469	.04238
	Islamic	213	3.1408	.69964	.04794
	Total	**601**	**3.0300**	**.79316**	**.03279**
6.	**Income level**				
	No income	254	1.2598	.74082	.04648
	Low income	200	2.8500	.63206	.04469
	Medium income	123	2.8049	1.06862	.09635
	High income	15	3.6000	.50709	.13093

Total	**592**	**3.0355**	**.97059**	**.03348**

From the analysis in table 4.2b, it indicates that the mean scores for the various age groups in respect to utilization of service is as follows:

16 – 25 years range = .2296
26 – 35 years range = 3.0000
36 - 45 years range = 2.9020
46 – 55 years range = 2.4086. All these mean scores for the various age groups was not significant for utilization of service.

In the case of marital status, the mean scores for the various categories is as follows:

Single respondents had a mean score of 3.2090, married respondents had 2.9065 as the mean, separated had 3.6000 as the mean score, divorced respondents had 3.0000 as the mean and widows had 3.3333 as the mean score. All these are not significant, except that of separated which is significant.

For the variable of number of children, respondents with 1-2 children had a mean score of 3.0480, 3-4 children, 2.9784, 5-6 children, 3.2667 and respondents with 7 children and above had a mean score of 3.0067.

In the care of religious affiliations, Christians had a mean score of 2.9691 and Muslim 3.1408. All these are not significant.

The various income levels shared the following mean scores:

No income group had 1.2598 as the mean. Low income group had 2.8500 as the mean, medium income group had 2.8049 as the mean and high income group had 3.6000 as the mean. As it can be observed, only the high income group

had a mean that is significant, all the remaining three (3) income groups had the mean that is insignificant.

Table 4.3: Analysis of variance (ANOVA) for differences among respondents in their perception of availability of healthcare services by demographic characteristics of the respondents.

S/N	Characteristic variable	Source of Variability	Sum of Squares	D/F	Mean squares	F	Significant
1.	**Age** **Availability of service**	Between groups Within groups **Total**	20.971 338.103 359.074	3 618 621	6.990 .547	12.777	
2.	**Marital status** **Availability of service**	Between groups Within groups **Total**	19.025 340.049 359.074	4 617 621	4.756 .551	1.878	XX
3.	**No. of children** **Availability of service**	Between groups Within groups **Total**	26.980 217.042 244.022	3 451 454	8.993 .481	1.259	XX
4.	**Position** **Availability of service**	Between groups Within groups **Total**	1.172 357.893 359.065	2 613 615	.586 .584	1.768	XX
5.	**Religion** **Availability of service**	Between groups Within groups **Total**	5.791 332.486 338.277	1 608 609	5.791 .547	.202	XX
6.	**Income level** **Availability of service**	Between groups Within groups **Total**	51.386 504.880 356.226	3 597 600	17.129 .571	2.191	

$(F_2,615) = 2.00 \quad l' \leq 0.05$

XX = Significant

Table 4.3 shows that the calculated F value is 12.777 which is greater than the critical value of 2.00 for availability of healthcare services according to the variable of age. As such, the hypothesis is, hereby, rejected because the calculated value is greater than the critical F value.

The calculated F value for the variable of marital status for availability of service is 8.63, while that of the critical F value is 2.00. The hypothesis is hereby retained.

For the variable of number of children, the calculated F value for availability of healthcare services is 1.259, while the critical value of F is 2.00 which is greater than the calculated F value, as such the hypothesis is retained.

For the variable of position, the calculated F value for availability of healthcare services is 1.768which is less than the critical F value of 2.00, as such, the hypothesis is retained. For religion, the calculated F value for availability of healthcare services is .202 which is less than the critical value of 2.00. The hypothesis is thus retained.

For the variable of income level, the calculated F value for availability of healthcare services is 2.191, while the critical F value is 2.00. As such, the hypothesis is rejected.

In conclusion, since the calculated F value is less than the critical F value for most of the variables in this analysis, the hypothesis which states that availability and utilization of healthcare services in tertiary institutions in Nasarawa state is not significant, is hereby retained.

Table 4.3a: Analysis of variance (ANOVA) for differences among respondents in their perception of utilization of healthcare services by demographic characteristics

s/no	Characteristic variables	Source of variability	Sum of squares	D/F	Mean squares	F	Significant
1.	Age	Between groups Within groups Total	18.131 377.341 395.471	3 609 612	 6.044 .620	 .8962	 Xx
2	Marital status	Between groups Within groups Total	18.014 377.458 395.471	4 608 612	4.503 621	4.075	
3	No. of children	Between groups Within groups Total	30.821 260.159 290.980	3 422 445	10.274 .589	6.238	
4	Position	Between groups Within groups Total	.694 394.722 395.466	2 604 606	.347 .654	1.316	Xx
5	Religion	Between groups Within groups Total	4.057 373.404 377.461	1 599 600	4.057 .623	111	Xx
6	Income level	Between groups Within groups Total	30.988 361.267 392.255	3 588 591	16.329 .614	1.91	Xx

$(F_2,615) = 2.00$ l' ≤ 0.05

XX = Significant

Table 4.3a above shows that the calculated F value for utilization of healthcare services according to age variable is .8962 which is less than the critical value of 2.00, as such, the hypothesis that states that there is no significant availability of healthcare services in tertiary institution in Nasarawa state in

retained. The calculated F value for the variable of marital status is 4.075 while the critical F value is 2.00. Since the calculated F value is greater than the critical F value, the hypothesis is thus rejected. For the variable of number of children the calculated F value is 6.238, will the critical F value is 2.00, the hypothesis is therefore rejected. In the case of variable of position, the calculated F value is 1.316, while the critical F value is 2.00, the hypothesis is hereby retained. The calculated F value for the variable of religion is .111 which is less than the critical F value of 2.00, as such the hypothesis is retained. For the variable of income level, the calculated F value is 1.011, while the critical F value is 2.00, the hypothesis is then retained.

In conclusion, since the calculated F values for most of the variables in this analysis are less than the critical values of 2.00, the earlier stated hypothesis is hereby retained.

This study was conducted on two (2) sets of respondents. One set consisted of students, academic and non-academic staff of tertiary institutions in Nasarawa State. The responses of this set has been statistically analyzed and presented in the previous section of this chapter. The second set consisted of healthcare workers and administrators of tertiary institutions in Nasarawa State whose responses are statistically analyzed and presented in this section, according to the following sub-hypothesis.

Sub-hypothesis III: Demographic characteristics of the respondents do not affect their perception about availability of healthcare services in tertiary institutions in Nasarawa state.

Sub-hypothesis IV: Demographic characteristics of the respondents do not affect their perception about the utilization of healthcare services in tertiary institutions in Nasarawa state.

Sub-hypothesis V: There is no significance difference on the perception of healthcare workers and administrators in the availability of healthcare services in tertiary institutions in Nasarawa state.

Sub- hypothesis VI: There is no significance difference on the perception of healthcare workers and administrators in the utilization of healthcare services in tertiary institutions in Nasarawa state.

Table 4.4a indicates the means score of availability of service according to demographic characteristics of healthcare workers and administrators.

Table 4.4a: Mean score of availability of service according to demographic characteristics of healthcare workers and administrators.

Characteristics		Frequency	Percentage
1.	**Age**		
	16-25 years	3	1.5
	26-35 years	148	72.9
	36-45 years	41	20.2
	46-55 years	11	5.4
	Total	**203**	**100.0**
2.	**Marital Status**		
	Single	9	4.5
	Married	190	94.5
	Widowed	2	1.0
	Total	**201**	**100.0**
	Missing	2	
3.	**Number of Children**		
	1 – 2	83	44.6
	3 – 4	76	40.9
	5 – 6	21	11.3
	7 and above	6	3.2
	Total	**186**	**100.00**
	Missing	17	
4.	**Religion**		
	Christianity	97	49.7
	Islam	95	48.7
	Others	3	1.5
	Total	**195**	**100.00**
	Missing	8	
5.	**Socio-Economic Status**		
	No income	6	3.0
	Low income	75	37.3
	Medium income	106	52.7
	High income	14	7.0
	Total	**201**	**100.00**
	Missing	2	

Table 4.4a: shows that 46-55 age group perceived availability of service better than the younger age groups single respondents perceived better about

availability of service than others in the marital status group. Students also perceived better about availability of service than other groups. Groups Religion and income did not show marked differences in their perceptions about availability of service.

The 4.4a Table shows the mean score of the availability of service according to demographic characteristics of the respondents.

Table 4.4b: Mean score and Standard Deviation (SD) for availability of healthcare services according to demographic characteristic of healthcare workers and administrators.

	Characteristics	A	M	SD	SE
1.	**Age**				
	16-25 years	0			
	26-35 years	148	2.7162	.53504	.40398
	36-45 years	44	2.5366	.74490	.11633
	46-55 years	11	3.7118	.0000	.0000
	Total	**203**	**2.9163**	**.66592**	**.04674**
2.	**Marital Status**				
	Single	9	3.3333	.50000	.16667
	Married	190	2.8947	.67414	.04891
	Widowed	2	3.0000	.0000	.00000
	Total	**201**	**2.9154**	**.66919**	**.4720**
3.	**No. of Children**				
	1 – 2	83	2.7952	.51227	.05623
	3 – 4	76	2.8553	.84386	.09680
	5 – 6	21	3.0952	.30079	.06564
	7 and above	6	3.0000	.00000	.00000
	Total	**186**	**2.8602**	**.65084**	**.04772**
4.	**Religion**				
	Christianity	97	2.8557	.61220	.0626
	Islam	95	2.9053	.65353	.06705
	Others	03	3.0001	.00000	.00000
	Total	**195**	**2.8821**	**.62708**	**.04491**
5.	**Income Level**				
	No income	6	3.0000	.00000	.00000
	Low income	75	2.7600	.65430	.07555
	Medium income	106	3.0094	.72368	.07029
	High income	14	3.0000	.00000	.00000
	Total	**201**	**2.9154**	**.66919**	**.04720**

Table 4.4b above indicates that 26-35 years age range had a mean of 2.7162, 36-45 years age range had 2.5366 as the mean and 46-55 years age range

had a mean of 2.9163. All these mean scores of the variable of age are insignificant.

For marital status, single respondents had 3.3333 as the mean score, married respondents had 2.8947 as the mean and widows had 3.0000 as the mean.

In the case of number of children, those that had 1-2 children had a mean score of 2.7592, 3 – 4 children had a mean score of 2.8553 respondents with 5-6 children had a mean score of 3.0952 and those with 7 children and above, had a mean score of 3.0000.

For religious affiliations, Christians had a mean score of 2.8557 and Muslims had a mean score of 2.9053.

In the income level category, no income group had a mean score of 3.000, low income group had a mean score of 2.7600, medium income group had a means score of 3.0000. As it can be observed from this analysis, no group had a mean score that is significant as such the hypothesis that states there is no significant difference in the perception of healthcare workers and in tertiary institutions of Nasarawa State is retained.

Table 4.4c: Mean and standard deviation for utilization of healthcare services according to demographic characteristics of healthcare workers and administrators.

	Characteristics	N	M	SD	SE
1.	**Age**				
	16-25 years	03	3.000	.00000	.00000
	26-35 years	148	2.9529	.56345	.04632
	36-45 years	41	3.5122	.84030	.13123
	46-55 years	11	3.0000	.00000	.00000
	Total	**203**	**3.0690**	**.64882**	**.04554**
2.	**Marital Status**				
	Single	09	3.6667	1.000	.3333
	Married	190	3.0421	.62430	.04529
	Widowed	2	3.000	.00000	.00000
	Total	**201**	**3.0697**	**.65202**	**.04599**
3.	**No. of Children**				
	1 – 2	83	2.8916	.54127	.05941
	3 – 4	76	3.0789	.70735	.08114
	5 – 6	21	3.5238	.51177	.11168
	7 and above	6	3.0000	.00000	.00000
	Total	**186**	**3.0430**	**.63098**	**.04627**
4.	**Religion**				
	Christianity	97	3.0619	.70437	.07152
	Islam	95	3.0211	.52550	.05391
	Others	03	3.0000	.00000	.00000
	Total	**195**	**3.0410**	**.61624**	**.04413**
5.	**Income Level**				
	No income	6	3.0000	.00000	.00000
	Low income	75	3.0800	.03160	.07213
	Medium income	106	3.1038	.70277	.06826
	High income	14	3.7857	.42582	.11380
	Total	**201**	**3.0697**	**.65202**	**.04599**

Table 4.4c reveals that 16-25 years age group had a mean score of 3.0000, 26-35 years age range had 2.9529 as their mean score, 36-45 years group had 3.5722 as the mean score and 46-55 years age range had 3.0000 as the mean score.

Single respondents had a means score of 3.6667, married respondents had 3.0000 as the mean score and widows had a mean score of 3.0000.

On religious affiliations, Christianity had a mean score of 3.0619 and Islam had a means score of 3.0211.

For income levels, no income group had a means score of 3.0000, low income group had a means score of 3.0800, medium income group had 3.1038 as the mean score and high income group had 3.7857 as the mean score.

The table above reveals that single respondents and high income group had mean scores that were above 3.5. All the remaining had mean scores of less than 3.5. In conclusion, the mean scores as perceived by health workers and administrators is not significant. As such, the hypothesis that states that there is no significant utilization of healthcare services in tertiary institutions in Nasarawa State is retained.

Table 4.5: Analysis of variance (ANOVA) for difference among respondents in their perception of availability of healthcare services according to demographic characteristics of healthcare workers and administrators.

	Characteristics Variable	Sources of Variability	Sum of Squares	df	Means Square	f	Significant
Age	(a). Availability of services	Between groups Within groups **Total**	3.465 43.933 **47.398**	2 183 **183**	1.732 183 **185**	7.216	
Marital Status	(a). Availability of services	Between groups Within groups Total	2.992 44.312 47.304	2 181 183	1.496 245	6.111	XX
No. of Children	(a). Availability of services	Between groups Within groups Total	4.576 53.182 37.698	3 168 171	1.505 .198	7.621	
Position	(a). Availability of services	Between groups Within groups Total	.686 46.474 47.160	2 178 180	.343 .261	1.314	XX
Religion	(a). Availability of services	Between groups Within groups Total	.177 46.983 47.160	2 178 180	.089 .264	.336	XX
Income Level	(a). Availability of services	Between groups Within groups Total	2.087 45.217 47.304	3 180 183	.696 .251	2.769	XX

$(F_2,180) = 3.00$ l' ≤ 0.05
XX = Significant

Table 4.5 above shows that the calculated F value in respect to age characteristics for availability of healthcare services is 7.26, while the critical F value is 3.00. Since the calculated F value is more than the critical F value, the hypothesis is, thus, rejected. The critical value in respect to availability of healthcare services for the variable of number of children shows that the calculate F value is 7.621, while the critical F value is 3.00, the hypothesis is thus rejected. For the variable of position, the calculated F value for availability of healthcare services is 1.314 and the critical F value is 3.00, thus the hypothesis is retained.

For the variable of religion, the calculated F value for availability of healthcare services is .336 and the critical F value is 3.00, since the calculated F value is less than the critical F value, the hypothesis is retained.

For the variable of income level, the calculated F value for availability of healthcare services is 2.769, while the critical F value is 3.00, the hypothesis is thus retained.

In conclusion, the hypothesis which states that availability of healthcare services as perceived by healthcare workers and administrators in tertiary institutions in Nasarawa state is not significant and is retained because in most of the variables analyzed, the calculated F value was less than the critical F value.

Table 4.5a: Analysis of variance (ANOVA) for differences among respondents in their perception of utilization of healthcare services according to demographic characteristics of healthcare workers and administrators

s/no	Characteristics variables	Source of variability	sum of squares	D/F	Mean squares	F	Significant
1	Age	Between groups Within groups Total	0.34 30.808 30.842	2 155 157	.017 .199	.084	Xx
2	Marital status	Between groups Within groups Total	.003 30.837 30.840	1 154 155	.003 .200	.016	Xx
3	No. of children	Between groups Within groups Total	2.468 28.365 30.833	3 146 149	.823 .194	4.235	
4	Position	Between groups Within groups Total	.378 30.458 30.836	2 150 152	.189 .203	.931	Xx
5	Income level	Between groups Within groups Total	.638 30.202 30.840	2 153 155	.319 .197	1.616	Xx

$(F_2,180) = 3.00$ l' ≤ 0.05
XX = Significant

Table 4.5a above indicates that the calculated F value for the variable of age is .084 which is lee than the critical F value of 3.00, the stated hypothesis is hereby retained. For the variable of marital status, the calculated F value is 0.16 while the critical F value is 3.00, the hypothesis is thus retained. In the case of the variable of number of children, the calculated F value is 4.255 which is greater than the critical value of 3.00, the hypothesis is hereby rejected. For the variable of position, the calculated f value is 1.314 which is less than the critical value of 3.00, the hypothesis is hereby retained. In the case of the variable of income level, the calculated F value is 2.769, while the critical f value is 3.00, the hypothesis is hereby retained.

In conclusion, since in most of the variables the calculated F value in respect to utilization of healthcare services in tertiary in Nasarawa state is lees than he critical value of 3.00, the hypothesis is then retained.

4.3 Discussion

The purpose of this study was to assess the availability and utilization of healthcare services in tertiary institutions in Nasarawa State. Healthcare services are designed to meet the health needs of the community through the effective use of available knowledge and resources, such that the health of the community is protected and promoted. As the healthcare services are primarily concerned with the community and tertiary institutions healthcare services, which are the focus of this study, is meant to protect and promote the health of both staff and students of an institution. In most tertiary institutions, there are healthcare services with a few departments (Sheetz, 2002). These

services are to take care of the health of the students in order for them to enjoy the full benefits of educational attainment. The proper utilization of these services will ensure security, productivity and effective learning. For these services to be effective and efficient, they should be available and utilized with least constraints

This study attempted to find out the extent of availability and utilization of healthcare services in tertiary institutions in Nasarawa State. It is also aimed at finding out the effects of demographic characteristics on the perception of the respondents about availability and utilization of healthcare services in tertiary institutions in Nasarawa State. The study also focused on the perception of healthcare workers and administrators on availability and utilization of healthcare services in tertiary institutions in Nasarawa State.

From the findings of this, it has revealed that availability and the utilization of healthcare services are essential for the promotion of both staff and students in tertiary institutions in Nasarawa State. The study also revealed that adequate healthcare services help to promote efficiency and productivity for both staff and students.

Carla, Adriene and Jahallas (2007) all collaborated that many public schools recognize the correlation between healthy students and academic performances and they offer a wide range of healthcare services that are aimed at protecting, preventing and curing illnesses and sicknesses among staff and students of a given school.

Parks (2000) says healthcare services are designed to meet the health needs of the community through the effective use of available knowledge and resources. According to him, the availability of healthcare services in any given community or organization is to prevent the occurrence of any breakdown of health or to prevent diseases from

occurring. It is also meant to protect and promote the health of the people. All the above agree with the findings of this study on the need for the availability of healthcare services in tertiary institutions in Nasarawa State.

According to the findings of this research, utilization of healthcare services is essential for the attainment of the goal for such services. This study also reveals that for effective utilization of healthcare services, the services have to be affordable, acceptable and within the reach of the people, the healthcare services are meant for.

However, this study shows that there is inadequate utilization of healthcare services in tertiary institutions in Nasarawa State, which was due to some of these factors:

High cost of drugs and services rendered attitude of staff administering the healthcare services and the healthcare system itself. Lee, Tsang, Lee and To (2003) all agree that health prospects, educational achievements and learning outcomes are often dependant upon health status. That this can only be possible if there is availability of healthcare services and proper utilization of these healthcare services. UNFPA (2010) report on healthcare services of assisted states in Nigeria, states that for effective utilization of healthcare services, the following should be available:

- Availability of qualified and adequate staff.
- Availability of essential drugs and consumables.
- Availability of maternity equipment and
- Availability of functional means of transport.

That for proper utilization of these services, they have to be acceptable and affordable to the people that these healthcare services are meant.

The various studies by these different authors have agreed with the findings of this research, which reveals that non-utilization of healthcare services is due to certain factors.

The findings of this study also reveal that demographic characteristics of the respondents affect the utilization of healthcare services in tertiary institutions in Nasarawa State. Babar, Shaikh and Hatcher (2004) all agreed that there are certain factors that affect the utilization of healthcare services, these include socio-economic status, cultural beliefs, perceptions and the healthcare system itself. Similarly, Hauwa (2011) says that factors influencing the utilization of maternal healthcare services are demographic characteristics, culture and availability of the healthcare services. According to Hatcher(2004) the factors that result in a delay in treatment or the use of available healthcare services are family size, occupation, age, education, gender and marital status. Ogunlesi (2007) in a study on the pattern of utilization of prenatal and delivery services in Ilesa, Nigeria discovered that socio-economic status played an important role in the utilization of healthcare services.

All these studies have agreed with the findings of this research that demographic characteristics affect the utilization of healthcare services.

From the results of the analysis of variance (Anova) for this study, it shows that in most of the variables, the calculated F value is less than the critical F value. This signifies that the hypothesis which states that the availability of healthcare services in tertiary institutions of Nasarawa state are not adequate is retained. From the results so far

on availability, it has shown that healthcare services in tertiary institutions of Nasarawa state are not adequate.

In the case of utilization of service, the results show that the services are being utilized to a certain degree. This may be as a result of the high quality healthcare services provided. This conclusion is in agreement with what Lambo (1985) says, that utilization of service depends on certain factors, which include high quality care, which utilizes all the relevant health knowledge and techniques available to the health sciences.

For utilization of healthcare services is expressed as the proportion of people in need of a service who actually receive it in a given time. Utilization of service is determined by certain factors. These include physical and economic accessibility. From the analysis, the result shows that the services are not being utilized effectively. This may be as a result of certain factors as indicated earlier. This result agrees with that of Ogunlesi, (2005), Hauwa (2011), Babar, Shaikh and Hatcher (2004), and Katung (2004). This study agrees that poor utilization of service is due to certain factors, these include social background, religious beliefs, economic status, social class, culture availability and accessibility of the service, the healthcare system itself, high cost of drugs and services rendered family size, education, gender and marital status. Hypothesis four and five of this study are retained because this study has not revealed any significance differences in the perception of health workers and administrators on availability and utilization of healthcare services in tertiary institutions by demographic characteristics.

In conclusion, it can be said that the poor utilization of healthcare services in tertiary institutions of Nasarawa state is likely to be as a result of some of these factors listed above.

This study agrees with the position stated by Erinosho, (1998) that there are a number of predisposing and/or enabling factors in the utilization of healthcare services. These factors may be cultural, social, gender, economic etc.

Appropriate Availability and utilization of healthcare services are therefore very indispensable for rapid economic development of any nation. This is because for all human societies, no matter the level of development they are, the availability of healthcare services determine to a large extent, the socio-economic development of the people (Erinosho, 1998). Many diseases could be prevented or controlled through the provision of adequate healthcare services like immunization, environmental alternations and health education.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The purpose of this study was to assess the perceived availability and utilization of healthcare services in tertiary in Nasarawa state three-research question and six hypothesis were formulated. The research questions are

1. Are there availability of healthcare services in tertiary institutions in Nasarawa state?
2. Do people in these tertiary institutions in Nasarawa state utilize the available healthcare services?
3. Do the demographic characteristics of the respondents affect the utilization of the healthcare services in tertiary institution in Nasarawa state?

The formulated hypotheses are:

Sub hypothesis I: Healthcare services are not significantly available in tertiary institutions in Nasarawa state.

Sub hypothesis II: Healthcare services are not significantly utilized in tertiary institutions in Nasarawa state.

Sub hypothesis III: Demographic characteristics of the respondents do not affect their perception about availability of healthcare services in tertiary institution in Nasarawa.

Sub hypothesis IV: Demographic characteristics of the respondents do not affect their perception about utilization of healthcare services in tertiary institution in Nasarawa.

Sub hypothesis V: There is no significant difference in the perception of healthcare workers and administrators on availability of healthcare services in tertiary institution in Nasarawa state.

Sub hypothesis VI: There is no significant difference in the perception of healthcare workers and administrators on the utilization of healthcare services in tertiary in Nasarawa state

The study area was all the tertiary institution in Nasarawa state. The population of the study comprised of academic/ non-academic staffs, healthcare workers and administrators, numbering ten thousand (10000). One thousand (1000) despondence were used as sample size for the research these is made up of five hundred and fifty (550) students, two hundred and fifty (250) academic and non academic staff and two hundred(200) healthcare workers and administrators.

The research questionnaire was validated by five experts who are within the Physical and Health Education Department and the Faculty of Education, Ahmadu Bello University, Zaria the are specialists in health education. The questionnaire covered such areas as availability of healthcare services, utilization of healthcare services and hours of service delivered.

The ex-post facto research design was use for this study. A self-developed and validated questionnaire was the instrument use for data collection.

The statistical techniques used in analyzing the data included:

a. Descriptive statistics of frequencies and percentages for demographic information.
b. Mean and standard deviation (SD) to get the mean scores of the various variables of healthcare services.
c. Analysis of variance (ANOVA) was used to identify sources of differences in the responses of the respondents on availability and utilization of healthcare services in tertiary institutions in Nasarawa state by demographic characteristics.

The findings show that all the hypothesis tested were significantly the same. The schematic representation of the demographic characteristics, availability and utilization of healthcare services in tertiary institution in Nasarawa state and analysis of variance (ANOVA) are shown in figures: 4.2,4.2a, 4.2b 4.3, 4.4a, 4.4b,4.4c, 4.4d, 4.5 and 4.5a respectively.

5.2 Conclusion

From the analysis presented and on the limitation of this study, the following conclusions are drawn.

1. There is inadequate availability of healthcare services in tertiary institutions of Nasarawa State.
2. There is inadequate utilization of healthcare services in tertiary institutions of Nasarawa State, which may be due to the effects of utilization factors.
3. Income and family size significantly affect the utilization of healthcare services.

4. There was no significance difference in the perception of healthcare workers and administrators on the availability and utilization of healthcare services by demographic characteristics in tertiary institutions in Nasarawa State.

5.3 Recommendations

In the light of the findings of this study, the following recommendations are offered in respect to the provision and utilization of healthcare services in tertiary institutions of Nasarawa State.

1. The tertiary institutions should make deliberate efforts to expand the existing available healthcare services because as at present, the services are inadequate. The expansion is to be able to take care of both staff and students adequately.
2. There should be adequate publicity on the available healthcare services so that both staff and students can utilize them.
3. Priority should be given for adequate availability of healthcare services in tertiary institutions of Nasarawa State. This is because without good health, nothing can be achieved by the staff and students.

5.4 The areas for Further Research

Further research related to this work could be conducted to ascertain the availability and utilization of healthcare services in secondary schools in Nasarawa state.

Further research could also be conducted on the effects of adequate healthcare services on the health of both staff and students in tertiary institutions in Nasarawa state.

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APPENDIX I

Department of Physical and Health Education

Ahmadu Bello University

Zaria.

17th January, 2009

LETTER OF INTRODUCTION

The researcher is an M.Ed student of the above named Department. He is currently conducting a research on **"Perceived Availability and Utilization of Healthcare Services in Tertiary Institutions in Nasarawa State".**

He is asking for your cooperation to honestly respond to these statements. Your responses should best describe your feelings to each statement relating to the research topic. All information provided by you will be used mainly for the purpose of this research and will be treated in strict confidence.

APPENDIX II

BIODATA

QUESTIONNAIRE A – For all Respondents

SECTION A – Demographic Characteristics of the Respondents.

Instruction:- Answer all questions by ticking ( ) the appropriate response to each question.

1. Age: 16-25 years [ ]
   26-35 years [ ]
   36-45 years [ ]
   46-55 years [ ]
   56 and above years [ ]

2. Marital status:-
   - Married [ ]
   - Single [ ]
   - Separated [ ]
   - Divorced [ ]
   - Widowed [ ]

3. Number of children per family:
   - 1-2 [ ]
   - 3-4 [ ]
   - 5-6 [ ]
   7 and above[ ]

4. Positions of the Respondents:
   - Academic [ ]
   - Non Academic [ ]
   - Student [ ]

5. Religious Affiliation:
   - Christianity [ ]
   - Islam [ ]

- Others (Specify) [ ]

6. Socio-Economic Status:

a. Low Income (N190,000- N500,000) per annum [ ]

b. Medium Income(N500,000-N1000,000) per annum [ ]

c. High Income (N1000,000 and above) per annum [ ]

d. No Income [ ]

Section B: Services available and utilized (for all respondents). Make a tick (√) against the type of healthcare services rendered and indicate the frequency of services.

S/NO	Types of Services available in the sampled in Tertiary Institutions	Daily	Mon-Sat	3 Times a week	2 Times a week	Once a week
1.	Treatment					
2.	Immunization					
3.	Ante-Natal Care (ANC)					
4.	Laboratory Services					
5.	Public enlightenment, including information and education					
6.	Emergency Services					

Section B1: Utilization of Healthcare services (for all Respondents)

The following are statements that relate to the likely reasons for inability to utilize healthcare services.

Tick (√) the appropriate column against each statement which best describes your opinion or feeling.

S/NO	ITEMS	SA	A	D	SD
1.	Inadequate public health enlightens campaign.				
2.	Long waiting time at the expense of other things.				
3.	Non belief in services rendered.				
4.	Not aware of need for services.				
5.	Cultural/traditional beliefs do not affect the utilization of services.				
6.	Time services offered are not convenient.				
7.	Inability to pay for services is a major constraint to the use of services.				
8.	The attitude of health personnel is a major constraint in accessibility to services.				
9.	Regular out of stock syndrome is a major constraint to utilizing services.				
10.	Poor quality of services rendered is one of the constraints in utilizing services.				
11.	The location of the facility is a major constraint in utilizing healthcare services.				
12.	Lack of proper orientation of the college community as regards the health services available affects its utilization.				

SECTION B2 – Availability of the healthcare Services (for healthcare workers and administrators only).

Tick (√) the appropriate column against each statement that best describes your opinion or feeling.

S/NO	ITEMS	SA	A	D	SD
1.	Health personnel are inadequate.				
2.	Most essential drugs are not available.				
3.	Basic equipment that are available are obsolete and non functional.				
4.	Hours of service delivery are inadequate.				
5.	Basic infrastructure such as electricity and water supply are not available at service centers.				
6.	Basic drugs storing facilities are not available.				

Section B3: Hours of service delivered. Tick (√) under Yes or No (for healthcare workers and administrators).

S/NO	Hours of services delivered	Yes	No
1.	Do you provide 24 hours service delivery		
2.	If not, for how long do you open to users?		
3.	Do you provide services during weekend?		