

MAKERERE



UNIVERSITY

COLLEGE OF BUSINESS AND MANAGEMENT SCIENCES

SCHOOL OF STATISTICS AND PLANNING

FACTORS AFFECTING STUDENTS' UTILISATION OF HEALTH SERVICES AT MAKERERE UNIVERSITY HOSPITAL. A CASE OF SCHOOL OF STATISTICS AND PLANNING

BY

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21/U/05121/PS

A DISSERTATION SUBMITTED TO THE SCHOOL OF STATISTICS AND PLANNING IN PARTIAL FULFILMENT FOR THE AWARD OF A BACHELOR'S DEGREE OF SCIENCE IN QUANTITATIVE ECONOMICS OF MAKERERE UNIVERSITY.

AUGUST, 2024

DECLARATION


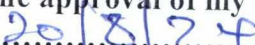
I, **Nizeyimana Benon**, declare that this study is my original work and has never been submitted to any institution or university for any academic reward before.

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APPROVAL

This dissertation has been submitted for examination with the approval of my assigned university supervisor, Signature.......... Date..........

Kakuba Christian, PhD

DEDICATION

I dedicate this research project to my parents Mr. and Mrs. Erasmus Nsabimana and friends especially Allan Ssemwanga Junior, Atim Judith and Sumayiyah Namatovu whose unconditional love and support have been my greatest pillars throughout my academic journey.

ACKNOWLEDGEMENT

First and foremost, I would like to express my gratitude to the Almighty God for His blessings, guidance and grace which I have seen at work throughout my academic journey. My special gratitude goes to my University Supervisor Dr. Kakuba Christian, PhD for his invaluable guidance, mentorship and support throughout my academic journey. His expertise, patience and dedication have greatly contributed to my development and success.

I am grateful for his commitment to my growth and his unwavering belief in my abilities. Special heartfelt appreciation goes to my beloved family members (my parents, sister and brothers) for their unwavering love, support and encouragement throughout my academic journey. To my parents, Mr. and Mrs. Erasmus Nsabimana, thank you for the unconditional love and endless sacrifices. Your constant belief in me and constant encouragement have been instrumental in my achievements. To my siblings Eunice, Christine, Brian and Joshua thank you for the love, friendship and unwavering support. Your presence in my life has made the journey more meaningful.

To my fellow students; Judith, Ibrahim, Owen, Simon Peter, Jachan and Ogenrwoth am forever indebted to you for your academic, resource and material support throughout my university academic journey.

LIST OF ABBREVIATIONS

STI	- Sexually Transmitted Infections
MakCHS	- Makerere University College of Health Sciences
NSHP	- National School Health Policy
RTI	- Reproductive Tract Infections
SABER	- Systems Approach for Better Education Result
SDGs	- Sustainable Development Goals
UH	- University Hospital
WHO	- World Health Organization
YFSRHS	- Youth-friendly Sexual and Reproductive Health Services

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ABSTARCT

The utilization of health services at Makerere University Hospital is a critical aspect for students' welfare and academic success. This research aims to analyze the patterns, determinants and the factors associated with the use of these services by the students of the school of statistics and planning which involves a descriptive cross-sectional study utilizing quantitative data collection methods.

From a population of 500 students, a sample of 109 students was interviewed using an online questionnaire and data on their health service utilization, satisfaction levels, was gathered. The pre-designed semi-structured questionnaire used contained four sections namely; demographic factors, utilization of health services, factors that affect the utilization of health services and the attitudes towards health services at the University hospital. More than three-quarters, (76%) were found to have visited as well as utilized health services while the remainder of (24%) were found to have never visited the hospital at any one point during their stay at the University. Given the percentage of those that had ever utilized health, (33%) had visited the hospital for more two times followed by those that had visited the hospital for once, (24%) yet the left proportion (19%) was for those that had visited the hospital for exactly two times. Of those students that had ever visited University hospital, more than half of the students had utilized general medical care, (17%) utilized laboratory services, (14%) utilized HIV/AIDS testing and counselling, (7%) utilized safe male circumcision, (6%) utilized family planning services, (5%) utilized vaccination services and lastly (2%) were found to have utilized eye care/treatment.

This research gives the importance of factors that affect the utilization of health services to ensure that students can fully benefit from the health services provided by Makerere University Hospital. By improving access and satisfaction, the university can significantly contribute to the well-being and academic success of its students.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the global situation, background, understanding of the area of study, problem statement, conceptual framework, objectives and hypotheses, existing mechanisms and justification of the study.

1.2 Global situation

(Health Behavior of Undergraduates and Service Utilization of University Health Centre-IOSR 2016, n.d.) indicates that Health services in higher institutions are to provide prompt and qualitative treatment, adequate and appropriate information and education about health. Students are not only concerned about their health but also feel susceptible concerning certain areas of their health and need intervention (WHO, 2013). This is in addition to overwhelming social structures which encourage endangered health risk behaviors (Stevens 2004) with grave implications and long term consequences if no early intervention. Unfortunately, in some places, services available and provided are not being utilized as expected for various reasons.

Young peoples' health that undergraduates represent should be given adequate and appropriate attention it deserves. Youths are the leaders of future and should be treasured with efforts to eliminate as much barriers to attaining their potentials as they transit. One way is to encourage young people to utilize the available services in time of ill-health as this reduces emergency use and hospitalization (Young et al., 2001; Santelliet al., 1986).

School health services offered in institutions of learning are meant to improve the health and well-being of students attending these schools. The health services are intended for early detection and care of students with health problems, aiding in development of healthy attitudes and behaviors by students and also to ensure a healthy environment for students at school thus boost their academic performance (IOM, 1997). An institution of learning brings together many people that is; students, teaching and non-teaching staff and thus requires a common point to handle medical emergencies, first aid and maintain good health among the students and staff (Allensworth et al., 1997).

Utilization of health services has both short and long- term benefits. McNallet al reported that as various acute illnesses and stress were treated among students that utilize school health centres, they were noticed to have strong academic performance, healthy mind and body. (Rotimi, n.d.) adds that health care utilization is influenced by predisposing, needs, and enabling factors (Anderson 1995, Webber et al., 2003). Need generates the purpose of utilization. People view health and use the services available differently. Symptoms that are more severe are seen as conditions that would need medical attention, whereas conditions that run predictable course are usually, hitherto, wrongly considered as not needing medical attention (Foster and Anderson, 1980; Wade et al., 2008; Narrow et al., 2000). Health beliefs from socio-cultural perspectives and background could have either positive or negative influence on health seeking behavior. The location of the facility, premises, opening hours, and complicated bureaucratic procedures, attitudes of staff and quality of the care are all organizational processes that can affect utilization of health care facility (Patton et al., 2009; Nai-Peng and Siow-li, 2013; Awoyemiet al., 2011). The assessment of utilization of the available health facilities is a main approach to understand the functioning of health services available. It is a measure of performance as it creates room for improvement in service delivery. Thus, this study is designed to know the identify the factors that influence students' utilization of health services at University hospital.

The importance of access to healthcare for all is internationally recognised as a global goal, high on the global agenda reinforced by the Universal Healthcare Movement and Sustainable Development Goals (SDGs). Yet, inequalities in health persist both within and between countries, with poorer, more marginalized groups often having the poorest health, compounded by also having the least entitlement to healthcare. Inadequate access to healthcare is often synonymized with low uptake of services, frequently assumed to be due to financial barriers on the demand side. Consequently, following some success, demand-side financing policies are used widely whenever low uptake is an issue. While a considerable body of evidence on healthcare access already exists, it tends to focus on a particular patient group and/or healthcare setting in a specific geographical region. However, the Universal Healthcare Movement and SDGs are not condition-specific goals, and a clear global picture is needed to inform coherent macro-level policies to achieve them.

1.3 Background

Students health can be seen as a determinant for student' performance of a given education system. This clearly depicts that a country with an objective of strengthening its education system, this should be through interventions that provide a basis for sustainable and desirable enabling environments such as the health of students. Mainly four policy actions should be put

in consideration with effect to promote overall school health and include; establishing health related school policies, ensuring safe & supportive environments, delivering school-based health & nutrition services and skills-based health education.

Makerere University has a large population of youth who are susceptible to all the leading causes of death in Uganda non-communicable diseases inclusive if they are not provided with proper and appropriate health services. For example, according to a cross sectional study conducted in Makerere University among students the cardiovascular risk factors with high prevalence were, alcohol consumption, excessive salt intake and elevated systolic blood pressure (Nyombi et al., 2016).

In the past, there has been widespread agreement that education delivers skills that underpin students' future learning and lead to greater social and financial mobility, increasing personal incomes and ultimately affecting a country's economic growth and development. But there was far less agreement on the education policies and programs most likely to create quality learning environments and improve student performance, especially among the disadvantaged. The Systems Approach for Better Education Results (SABER) was launched by the World Bank in 2011 to help fill this gap. SABER is an initiative to produce comparative data and knowledge on education policies and institutions, with the aim of helping countries systematically strengthen their education systems focusing on evaluating the enabling environments mostly health (WBG., 2014) and the ultimate goal of promoting Learning for All. It allows countries to conduct a thorough inventory of their education policies and institutions based on global best practices, as well as provides decision makers and stakeholders at all levels with tools for structured and effective policy dialogue. According to the SABER country report, Uganda developed the National School Health Policy (NSHP) that was published as of 2019 with a vision "A healthy school community for better education outcomes and national development"

1.4 Brief understanding of the area of study

According to World Health Organisation (WHO), health is the state of complete physical, social and mental wellbeing not merely the absence of disease or infirmity. This therefore means that the health services offered in institutions of learning should be aiming at keeping the students healthy through provision of services that cater for the physical, social and mental well-being.

More so, presence of these health service centres is not enough to justify usage because various factors influence an individual's health care seeking behaviour.

The accessibility to health services is a great determinant to the utilization of these services which depicts as the outcome of the interaction between health professionals and the patients, the measure of a population's use of the health care services available to them. Institutions of higher learning have large populations of young adults who tend to expect confidentiality and become more reserved about their health issues because young adulthood is a critical period of development with lasting implications of a person's health and well-being (Bonnie et al., 2014). This therefore influences the form of health care they could choose to use for example meeting the health service providers on their own terms and accessing youth clinics (Thomé et al., 2016).

1.5 Problem statement

Utilization of health services at Makerere University Hospital by Makerere University students is low. According to anecdotal data from the University Hospital (UH) Director (Dr. Byamugisha Josaphat Kayogoza), only about 1.9 – 2.5% of the student population receives health services at the hospital. More so, vaccination and general medical care that includes malaria and typhoid screening are the most utilised by the students. This has raised questions about the reasons for the low and non-utilization of health services provided at the hospital by students.

Health service utilization is influenced by various factors that include attitude, quality of services, peer influence, personal preference of health care and also accessibility of the hospital as some students stay far from the hospital. More so, the categories of services provided and the level of satisfaction of the previous seekers can also influence the utilization of the services (Macharia and Otieno, 2014). Despite the use of sensitization by Makerere University management and the University Students' Guild to create awareness of the existing health services at the University Hospital, the number of students utilizing the services has remained low. This has been done through the annual health week where services like screening, vaccination, health education and massive sensitization on various health related conditions are done under the supervision of the student leadership.

Failure to utilize the health services at the Hospital results into inability to keep track of; the students' health, patterns of utilization of health services and consequently affects planning for

the University Hospital by the Hospital and University management. Therefore, this research study assessed the factors that influenced students' utilization of health services at University hospital, Kampala in order to determine the most used services and factors that influence the utilization of these services.

1.6 Conceptual framework

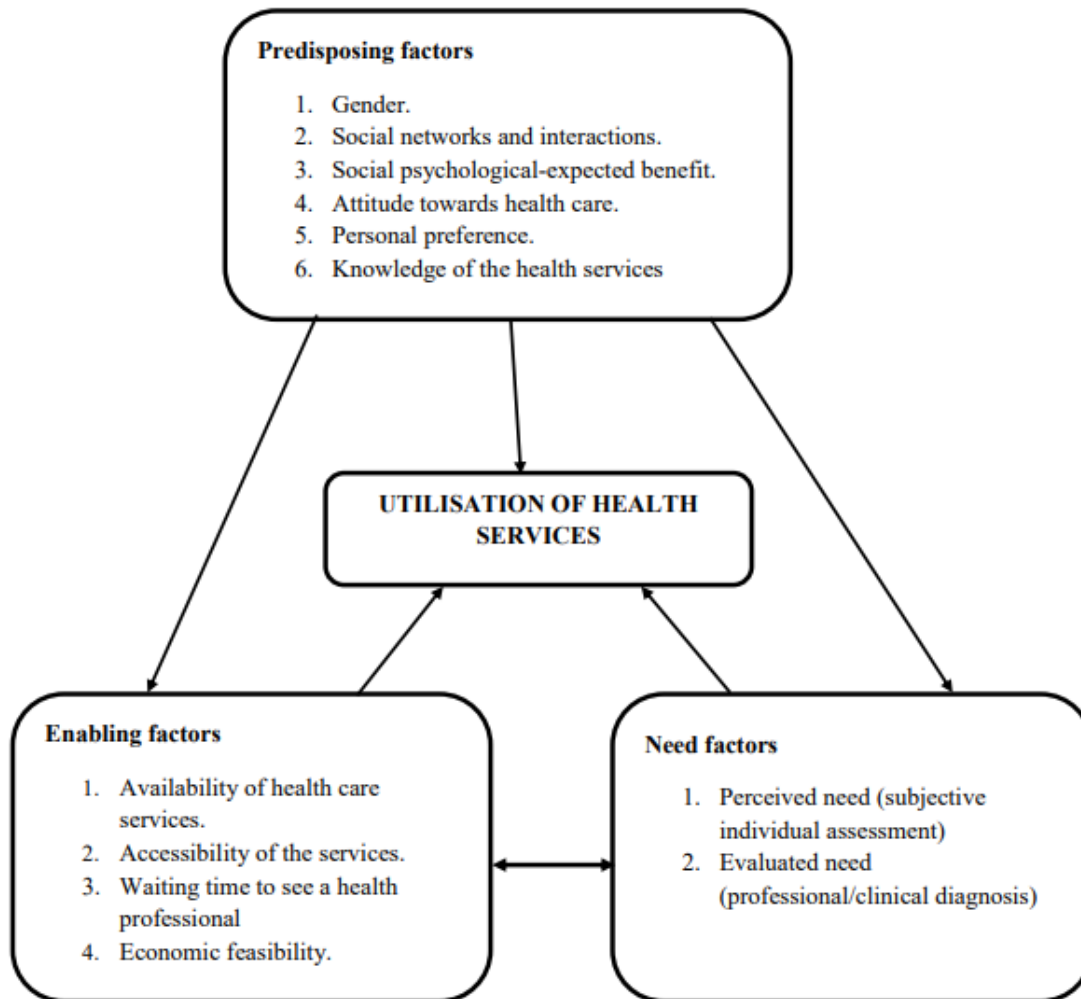


Figure 1: Conceptual framework adapted from Andersen's model of health service utilization.

Source: Adapted from the Andersen's model of health service utilisation 1995

1.7 Study objectives & hypotheses

Main objective

To assess the utilization of health care services by Makerere University students so as to contribute to the knowledge required in the planning and operation of the University hospital.

Specific objectives

- i. To determine the relationship between the age of students and the level of utilization of health services at University hospital.
- ii. To find out the association between gender of students and the level of utilization of health services.
- iii. To determine the relationship between the course offered by students and level of utilization of health services.
- iv. To find out the association between the number of years spent at University and the level of utilization of the health services.

Hypotheses

Null;

- i. **H₀**: The age of students and the level of utilization of health services are not related.
- ii. **H₀**: There is no association between gender of students and the level of utilization of health services.
- iii. **H₀**: The course offered by students and level of utilization are not related.
- iv. **H₀**: There is no association between the number of years spent at University and the level of utilization of the health services.

Alternative;

- v. **H₁**: The age of students and the level of utilization of health services are related.
- vi. **H₁**: There is an association between gender of students and the level of utilization of health services.
- vii. **H₁**: The course offered by students and level of utilization are related.
- v. **H₁**: There is an association between the number of years spent at University and the level of utilization of the health services.

1.8 Existing mechanisms

Strategies as recommended by the NSHP include; school medical facilities, school-based health clubs and safe spaces, and improved monitoring & tracking.

School medical facilities aim to strengthen linkages and referrals between education institutions and the health care providers. Many young people don't feel comfortable seeking out sexual and reproductive health services due to concerns surrounding stigma and lack of privacy. These issues are compounded by the lack of youth-friendly services in Uganda's healthcare sector. Only 5% of Ugandan public health facilities offer sexual and reproductive health services which are youth friendly. This is particularly alarming considering 70% of the population are below 25 years old. Creating safe and confidential spaces within these health centers is essential to first establish in order to increase uptake of referrals from educational medical facilities to health centers.

The school-based health clubs and safe spaces are providing sexual and reproductive health counselling as well as reintroducing adolescent mothers into education. The quality of counselling that can be provided is constrained by the National Sexuality Education Framework that limits the information surrounding SRHR. The framework is narrow minded and ignores the drivers of SRHR challenges such as adolescent pregnancy.

Challenges in establishing safe spaces within schools arises from the violence that is perpetrated by teachers. Nearly half (45.7%) of girls and 60.4% of boys who experienced physical violence by an adult in the community experienced the first incident by a male teacher. Despite the 2016 Amendment to the Children Act extending its corporal-punishment ban to all schools and colleges, violence at the hands of teachers remains commonplace.

Makerere University Hospital offers health services both curative and preventive in nature on a 24 hour basis; it has both an outpatient and an inpatient department where various health services are received (Martha, n.d.). The hospital in addition has a general medical care clinic, a dental clinic, maternal child health and family planning clinic and an optometry clinic. Health services offered include laboratory services where communicable and non-communicable diseases are screened such as Hepatitis B, HIV/AIDs, malaria, typhoid and brucellosis. Vaccination services for Hepatitis B and yellow fever and safe male circumcision are other services offered at the

hospital. The Maternal Child-Health and Family Planning Clinic deals with the immunization of children and students, dispenses vaccines and contraceptives (Martha, n.d.).

More so, the University Hospital faces challenges that include untimely response to the requirement of student registration with the hospital thus causing difficulty in planning. Many services are offered to students at the University Hospital but there is limited knowledge among University students about these services. This study therefore is to determine the factors that influence students' utilization of these health services to inform the health service decision in planning.

Makerere University Hospital has established the RTI Information Centre, May this year dedicated to addressing matters pertaining to reproductive tract infections among Ugandans (*Hospital & Health Care | Makerere University*, n.d.). To supplement the RTI App, Mak hospital has established an RTI clinic which will be open every Monday to provide services to those in need. In Uganda, a number of people from the age of 15 to 49 years suffer from Reproductive Tract Infections (RTIs). RTIs are defined as infections of the genital organs and include Sexually Transmitted Infections (STIs), endogenous infections and iatrogenic infections. In addition, iatrogenic infections are caused by organisms introduced into the genital tract while doing improper medical procedures for instance unsafe abortions. Research at all levels indicates that if left untreated, RTIs are harmful to a person's body and can lead to complications some of which may manifest later in life.

1.7 Justification of the study

Institutions of learning are in a unique position to promote the health and safety of students helping them establish proper lifelong health behavior patterns. Since students spend most of their time in a year pursuing education in various institutions of learning, the institutions should enable a continuous flow of health service to students through school-based health service facilities.

Makerere University offers health services to her students through the University hospital and expects all the students to utilise these services to improve their health during their stay at the University. However, under-utilization or even no utilization of the services at the hospital results into wastage of resources, poor planning and management. This study therefore is intended to generate information about the utilization of the health services offered by the

University to the students through the University hospital that under Makerere University College of Health Sciences (MakCHS) and all CHS departments are reflected at the Hospital and highly supported by professionals from the College of Health Sciences_(CHS) and Makerere University administration in the planning and running of the hospital and supervision of its operations.

Additionally, the information gathered shall be used by the Makerere University student leaders for guidance in decision making and budgeting for various ministries. The health ministry under the student guild will use this information to inform its plans and activities. This information shall be used by other institutions of learning in evaluation of utilization of school-based health care services by their students.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter aims to present literature about health services offered in higher institutions of learning, students' utilization of health services, common services sought by students, factors that influence students' access to and utilization of health services.

2.2 Health services offered in higher institutions of learning

WHO gives the following characteristics of good service delivery as; comprehensiveness to mean that a range of health services are provided appropriate to the needs of the target population, accessibility- services should be accessible without barriers like cost, language, culture and geographic reasons, coverage and continuity, quality to mean that the service should be safe, effective and centered on patient's needs (Organization, 2010). When the characteristics are observed for any service center, there is a high chance of utilization compared to when they are not observed.

According to (Martha, n.d.), at the global level, institutions of learning offer various health services to their students for example according to a survey conducted on utilisation of health services among institutions of learning, the most common services offered by the institutions were medical services at 91%, counseling 33% and health promotion 70%. The same survey further showed that primary care, gynecology services and urgent care were the most provided medical services among these institutions (McBride et al., 2010). In Uganda, health services are offered to students through school health service centres and private centres for example Lisa medical centre offers health services ranging from adolescent medicine, adolescent psychiatry, dentistry, gynecology, radiology and dermatology to Universities like Muteesa I Royal University, Kampala University and Buganda Royal Institute (LMC., 2013).

2.3 Student's utilization of health services

(Anselmi et al., 2015) conducted a study to investigate the effect of healthcare service availability, measured as the type of health facilities and their level of staffing and equipment, on the individual decision to seek care. Results indicated that living in the proximity of a health facility increases the probability of seeking care. A greater availability of referral health services in the locality has no significant effect on decision to seek care, while greater availability of staff and equipment increases the probability of seeking care when ill. Demand side barriers to health care use exist, but have a smaller impact when health care services are available within one hour walking distance.

Despite the global agreements on adolescents' sexual and reproductive health and rights, access to and utilisation of these services among the youth/adolescents remain unsatisfactory in low- and middle-income countries which are a significant barrier to progress in this area (Ninsiima et al., 2021). (Ninsiima et al., 2021) conducted a study to establish the factors influencing access and utilisation of youth-friendly sexual and reproductive health services (YFSRHS) among the youth in sub-Saharan Africa to inform programmatic interventions. However, the results indicated that structural barriers were the negative attitude of health workers and their being unskilled and individual barriers included lack of knowledge among youth regarding YFSRHS. Facilitators of utilisation of the services were mostly structural in nature which included community outreaches, health education, and policy recommendations to improve implementation of the quality of health services and clinics for adolescents/youth to fit their needs and preferences.

In addition, the barriers to access to YFSRHS were categorized as structural, individual, socio-economic, and socio-cultural (Ninsiima et al., 2021). The study by (Ninsiima et al., 2021) identified fourteen studies whose primary aim was to evaluate Individual barriers such knowledge, individual perception, shame and stigma affecting YFSRHS. Studies evaluating the utilisation level of adolescents/ YFSRHS found that only (38.5%) adolescents in South Africa and (21.5%) in Ethiopia were knowledgeable about the type of YFSRH services offered as suggested by (*Barriers to and Facilitators of the Provision of a Youth-Friendly Health Services Programme in Rural South Africa | BMC Health Services Research*, n.d.). Youths who lacked knowledge of the type of adolescents and YFSRHS were not likely to utilize the service than their counterparts (Binu et al., 2018). High-quality studies assessing knowledge as a barrier in Nigeria

and Ethiopia found that more than two thirds (79.5%) in Lagos, (98.1%) in Port Harcourt, both in Nigeria and (67.3%) in primary health care facilities (Ethiopia) of youths did not know of a specific A/ YFRHS provided in their health care facilities.

Several studies that have been conducted have found out that utilisation of health services among young adults has been unsatisfactory. The WHO estimates depression will be the number one cause of disease burden globally by 2030. In the United States, mental health illness is a priority concern for adults 18 to 24 years. Approximately 75% of all mental illness surface by age 24 years, yet only 64% of college students experiencing mental illness seek treatment (Thrasher, 2020). However, early identification and access to treatment for mental health care is essential for college student. Stigma associated with mental illness remains a barrier to help-seeking.

2.4 Factors that influence students' utilization of health services.

A variety of factors have been identified as the leading causes of poor utilization of primary health care services: including poor socio-economic status, lack of physical accessibility, cultural beliefs and perceptions, low literacy level of the mothers and large family size. Review of the global literature suggests that these factors can be classified as cultural beliefs, socio-demographic status, women's autonomy, economic conditions, physical and financial accessibility, and disease pattern and health service issues (Shaikh & Hatcher, 2005).

Cultural beliefs and practices often lead to self-care, home remedies and consultation with traditional healers in rural communities. (Shaikh & Hatcher, 2005) add that advice of the elder women in the house is also very instrumental and cannot be ignored. These factors result in delay in treatment seeking and are more common amongst women, not only for their own health but especially for children's illnesses. Family size and parity, educational status and occupation of the head of the family are also associated with health seeking behaviour besides age, gender and marital status.

According to Andersen model of health service utilization of 1995, factors that influence utilization of health services can be categorised as predisposing, enabling and need factors. These factors influence health service utilisation and also influence each other to affect health service utilisation.

2.4.1 Predisposing factors

Predisposing factors are mostly socio-demographic characteristics such as age, gender, social networks and interactions, social psychological-expected benefit, attitude towards health care, personal preference and knowledge of the health services. From studies conducted among general populations, age and utilisation of health services have a clear relationship but the narrow age range of University students makes it less likely to be a factor in student populations. Gender like any other predisposing factor influences utilisation as the females tend to utilise health services more than the males. A study conducted to determine gender differences in healthcare service use 12 months prior to suicide, a high proportion of girls were more likely to have used healthcare services in the year prior death, had been hospitalized or had received a mental related diagnosis as suggested in (*Gender Differences in Youth Suicide and Healthcare Service Use / Crisis*, n.d.).

Education status also influences health service utilisation as the students with higher education status tend to seek health care than those of lower education status. In a study conducted to assess factors influencing the utilisation of public and private health care services in Riyadh city, university students were most likely to attend public health centre thus utilize health services than students at lower levels of education as suggested in (*Profiling Elderly and Younger Patients Attending Health Care Facilities*, n.d.). Students' perception towards the health services is considered a great factor in influencing the utilisation of the health services, it varies depending on the organisation of health care system which is the main driver for health seeking behaviour among a population (Shaikh & Hatcher, 2005).

Furthermore, a cross sectional study carried out in Nigeria to assess the health behaviour of undergraduates and service utilisation of university health centre found out that a higher number of females utilised the University health services than the males (Rotimi, n.d.). Similarly like in student population, among the general populations age is known to influence health service utilisation as male and female health service preferences and seeking behaviour changes as they age. Younger populations utilise mental and social services at higher rates compared to the older populations (Keene, 2005). Social networks and interactions include peer influence and guidance that influences individuals to utilise health services. Individuals are often influenced by their parents or spouse for selection of a particular health provider as suggested in (*IJERPH / Free*

Full-Text | Patient Satisfaction with Health Care Services; An Application of Physician's Behavior as a Moderator, n.d.).

According to a study conducted in Spain to assess the gender differences in Utilization of health-care services among the older adult population females had a higher percentage of health service utilisation compared to males (Redondo-Sendino et al., 2006). More so females are more likely to use health services because they report having poorer health than males according to a study conducted among the middle aged and older Australians to assess gender differences in factors affecting use of health services (Parslow et al., 2004). Males limited utilisation of health services has been attributed to both biological and social cultural factors of masculinity (Sievers, 2006).

2.4.2 Enabling factors

Enabling factors are family or community level characteristics that facilitate (or inhibit) the ease in which health care is attained. Examples of enabling factors include availability of health care services, accessibility of the services, time constraints, health insurance and economic feasibility. A cross sectional study to assess utilisation of University health centre services in the past 6 months and perceived barriers towards utilisation among University students in Jordan found that long waiting time for health services presented as a barrier to health service utilisation (Alkhawaldeh, 2017).

In addition, a study conducted in Nigeria to assess factors affecting utilisation of university health services in a tertiary institution found out that time spent waiting for treatment and availability of drugs were found to have influenced utilisation of University health services at a percentage of 67.2% and 54.8% respectively. The same study showed that 8 accessibility to the health facility was not considered as a factor by the study participants (Obiechina & Ekenedo, 2013). Among the general populations, other enabling factors are well studied for example, a study conducted in Zimbabwe about the socio-economic status and health care utilisation showed that health services are most utilised by those of high and medium social economic status.

Employment as a means of income earning played a role in influencing utilisation as the employed utilise health services and the unemployed utilised the traditional health services most (Kevany et al., 2012). Geographic accessibility as another enabling factor affects utilisation of health services. For example, a study conducted in Japan to reveal whether an income-dependent difference in the impact of geographic accessibility on the utilization of government-led annual

health check-ups exists, travel time to the nearest health care facility and density of health care facilities were some of the indices used to find out that both low density and low income associated with decreased utilisation of health checkups. Contrary to these findings, other research has failed to find a link between utilization and other enabling factors, such as physical accessibility and time availability (Corney, 1990).

2.4.3 Need factors

According to the Andersen's model of health service utilisation 1995, need factors are categorised into two that is: perceived need and evaluated need. They include and are not limited to perceived health status, illness level or established diagnoses which are among the most important factors in determining whether a person seeks help or not. Need factors have a major impact on influencing health service utilization than both the predisposing and enabling factors (Li et al., 2016). Health need as measured by perceived health status was found to be associated with increased health service utilisation.

The relationship between need and service use differs for different groups of people as presence of an illness among males and females largely influences utilisation of health services, the presence of physical symptoms predicted more frequent health care consultation in both males and females but the presence of psychosocial problems or distress however predicted consultation behaviour in women but not in men (Corney, 1990).

Various studies indicate varying barriers to health service utilisation but these barriers to access health services can result from both the consumers and the service providers (Kiwauka et al., 2008). Therefore, to improve utilisation of given health services, accessibility should be enhanced (Awoyemi et al., 2010).

2.5 Common services sought by students

(Alkhaldeh, 2017) conducted a study to assess utilisation of University health centre services, of the 42.5% of the students that had used the University health centre services at least once in the past 6 months, the most frequent health conditions for utilisation were influenza, headache and abdominal pain . In addition, according to the University of Michigan National College Health Assessment (NCHA) the students presented stress, anxiety, sleep difficulties, depression, cold and sore throat as the health impediments to academic success (University of Michigan, 2018).

Among various universities in the United States, 60% of the students used health services of which 13% was 6 mental health services, 9% vaccination and 31% miscellaneous services. The same study showed the most common diagnostic categories as respiratory illness, skin, hair and nail infectious nonsexual transmitted infection and mental health that would be prevented (Turner & Keller, 2015).

The under-utilization of the health services in public sector has been almost a universal phenomenon in developing countries. On the other hand, the private sector has flourished everywhere because it focuses mainly on ‘public health goods’ such as antenatal care, immunization, family planning services, treatment for tuberculosis, malaria and sexually transmitted infections.

Categorically, health conditions affecting students are mental health issues, stressing factors, sexual health and drug use (Graf, n.d.). According to the Georgetown university, students present with health conditions like stress, anxiety, depression, alcohol over use, colds, flus and sore throat (Schechter et al., 2018).

CHAPTER THREE

STUDY METHODOLOGY

3.1 Introduction

This chapter comprises of the study area, study design, sample size determination, data collection methods and analysis.

3.2 Study area

The study was conducted in Makerere University main campus located on Makerere hill, Kawempe division Kampala-Uganda. The main campus is about 5km to the north of the city centre covering an area of 350 acres. According to the Makerere University Annual report 2017, the University has a student population averaging between 40,000-49,999 which the University main campus contributes 85% of the total student population. 46% of the total population is female. The University is Uganda's largest and third oldest institution of higher learning comprising of nine colleges and one school.

Specifically, the study put emphasis on students of AY2023/24 from the School of Statistics and Planning under the College of Business and Management Sciences. The students were from courses; Bsc.QE, BSTAT, BSAS and BPS

Makerere University offers health services through the University hospital which is accessible by all University students at no cost for the basic services but extended services are paid for. The hospital offers a range of services like general medication, laboratory, family planning, vaccination, x-ray and dental services from which the complicated cases are referred to other health centre including Mulago hospital.

3.3 Study design

This was a descriptive cross-sectional study utilizing quantitative data collection methods.

3.4 Study population

Female and male registered university students that had been pursuing an undergraduate course for the academic year 2023/2024, the students were from the School of Statistics and Planning.

3.5 Sample size estimation

Using Cochran's formula of sample size determination,

The first is applied when dealing with infinite populations. $n_0 = (Z_{\alpha}^2 * p * (1-p))/e^2$

While the second is used when the population is known. This formula is a modification of the first one. $n = n_0/(1 + ((n_0 - 1)/N))$

Where;

N = The sample size estimate of students at School of Statistics and Planning

P = 90%, 0.9 (P is 90% because I found a study that was carried out in the similar setting to determine prevalence of access and utilisation of health services)

(1-P) = The probability of not utilizing the health services.

Z_{α} = Standard normal deviation at 95% confidence interval corresponding to 1.96

e = Margin of error

To start with;

$$n_0 = (Z_{\alpha}^2 * p * (1-p))/e^2$$

$$n_0 = (1.96^2 * 0.9 * 0.1)/0.05^2 = 138.2976$$

Then;

$$n = n_0/(1 + (n_0 - 1)/N)$$

$$n = 138.2976/(1 + ((138.2976 - 1)/500)) = 108.5034$$

n = 109 students

3.6 Study variables

3.6.1 Independent variables

Independent variable	Measure
Gender of the students	Each student was asked to state their sex given the alternatives.
Age of the students	Each student was required to choose an age category onto which their age was.
Course affiliated to	Each study participant was asked to state the course that they are attached to.
Number of years in university	Each study participant was asked to state the number of years they have spent at Makerere University.

Table 1: Study variables used

3.6.2 Dependent variable

Utilisation of the health services at University hospital.

This was measured by asking each participant if they had used any service from the University hospital during the time of their stay since admission.

3.7 Data collection procedures and tools

Data was collected from a study respondent after seeking their consent. A self-administered semi structured questionnaire designed was given to a study participant that allowed to effectively participate in this research study.

3.8 Data management and analysis

Data was collected using a pre-designed semi-structured questionnaire that contained four sections namely; demographic characteristics, utilisation of health services at the University hospital, factors that affect the utilisation of health services at University hospital and attitude towards health services at the University hospital.

Using EPI DATA version 3.0 an entry screen identical to the questionnaire was designed to enable data entry, checks were put in place to prevent entry of wrong information and ensure consistency. When all the data was entered in to EPI DATA, it was then transferred to STATA

version 15 where it was cleaned to correct inconsistencies and also match common variables in the dataset.

Data analysis was done using STATA version 13 to generate descriptive statistics of the study population with means (Standard Deviation), median (interquartile range) and frequency distributions where necessary.

Objective one: From the dataset, the total number of participants that said they had utilised the health services at the University hospital was determined and then expressed as a percentage of the total sample to answer objective one.

Objective two: Frequency distributions of the various health services utilised by University students as from the data set were generated and the health services with high frequencies was considered as commonly used.

Objective three: Factors influencing utilisation and non utilisation of the health services at the University hospital were attained from the dataset and furthermore frequency distributions were generated to answer objective three.

3.9 Dissemination of results

The results from the study are to be submitted to Makerere University School of Statistics and Planning as a part of the requirements for the award of Bachelor's degree of Science in Quantitative Economics. More so, the results are availed to the University hospital management, Makerere University College of Business and Management Sciences and to the Dean of students, Makerere University.

CHAPTER FOUR

ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents the analysis from the study aimed at assessing utilisation of health services at Makerere University hospital by the students and interpretation of results obtained from study. Results are presented below.

UNIVARIATE ANALYSIS

4.2 Socio-demographic characteristics of the study participants

Socio-demographics	Frequencies (n=109)	Percentages
Sex		
Female	36	33.03
Male	73	66.97
Age in years		
21 years and below	11	10.09
22-25 years	95	87.16
Above 25 years	3	2.75
Marital status		
Divorced	0	0
Married	1	0.92
Separated	1	0.92
Single	107	98.17
Widowed	0	0.00
Course being pursued		
BPS	9	8.26
BSAS	8	7.34
BSTAT	23	21.10
BscQE	69	63.30
Number of years at University as a student		
Less than one	1	0.92
More than two	90	82.57
One	5	4.59
Two	13	11.93
Whether a day/evening student		
Day	104	95.41
Evening	5	4.59

Table 2: Descriptive analysis of the socio-demographic factors

Interpretation;

Out of a population of 500 students AY2023/24, a sample of 109 students was managed to fill an online questionnaire. More than half of the students were found to be males (67%) and the remainder were females (33%). More than three-quarters of the students were aged between 22 and 25 years, (87%); followed by those aged 21 years and below, (10%) and lastly those aged 25 years and above, (3%). More than three-quarters of the students were found to be singles (98%), one student being married and one being separated. More than half of the students pursued Bsc.QE, (63%), followed by those that pursued BSTAT (21%) then BPS (8%) and lastly those pursuing BSAS (7%). More than three-quarters of the students had spent more than two years of study at the university (83%) followed by those that had studied at the university for exactly two years (12%), (5%) students had studied for exactly one year and only one had studied for less than one year. More than three quarters of the students had registered to pursue a day programme (95%) while at the university and the rest an evening programme (5%).

4.3 Level of utilisation of health services among the students.

Number of times of visiting	Frequency	Percentage
More than twice	36	33.03
Never	26	23.85
Once	26	23.85
Twice	21	19.27

Table 3: Level of utilisation of health services at University hospital

Interpretation;

Reporting using column percentages;

More than three-quarters, (76%) were found to have visited as well as utilized health services from University hospital while the remainder of (24%) were found to have never visited the hospital at any one point during their stay at the University. Given the percentage of those that had ever utilized health services from University hospital, (33%) had visited the hospital for more two times followed by those that had visited the hospital for once, (24%) yet the left proportion (19%) was for those that had visited the hospital for exactly two times.

4.4 Level of health service utilization

Services utilized	Frequencies (109)	Percentages (%)
Eye care/treatment	2	1.83
Family planning services	6	5.50
General medical care (malaria, typhoid...)	55	50.46
HIV/AIDS testing and counselling	15	13.76
Laboratory services	18	16.51
Safe male circumcision	8	7.34
Vaccination (Yellow fever, Hepatitis B)	5	4.60

Table 4: Health services utilized by students

Interpretation;

Of those students that had ever visited University hospital, more than half of the students had utilized general medical care, (17%) utilized laboratory services, (14%) utilized HIV/AIDS testing and counselling, (7%) utilized safe male circumcision, (6%) utilized family planning services, (5%) utilized vaccination services and lastly (2%) were found to have utilized eye care/treatment.

4.5 Awareness about the University hospital among the participants

Awareness about University hospital	Frequencies (109)	Percentages (%)
Fellow students	65	59.63
Fellow students and student leaders	15	13.76
From reading books about the University	8	7.34
From the internet	1	0.92
Student leaders	20	18.35

Table 5: Awareness about the University hospital among the students

Interpretation;

More than a half of the students (60%) were made aware about University hospital through fellow students, (18%) became aware of the hospital through student leaders, (14%) raised that

they became aware of University hospital through both the fellow students and student leaders, (7%) indicated that they were made aware of the hospital by reading books and literature pertaining the University whereas only student identified that it was through the internet for him to get aware about the hospital.

Alternative sources of medication to students.

Source of medication	Frequencies (109)	Percentages (%)
My parents	67	61.47
My parents and my spouse	1	0.92
Myself	25	22.93
My parents and myself	13	11.93
Myself and my spouse	2	1.83
Myself, my parents and my spouse	1	0.92

Table 6: Alternative sources of medication to students.

Interpretation;

Of those that did not utilize health services from University hospital, (61%) identified that their parents had funded their medication, (23%) identified that they had provided for their medication, (12%) were found to have parents having funded their medication as well as self-medication. (2%) were identified to have their medication funded from their spouses as well as had self-medication. Only one student was found to have their parents and their spouse paying for their medication and only one student was found to have medication paid by them self, their parents together with their spouse.

4.6 Factors affecting the utilization of health services at the University Hospital.

Utilization	Frequencies (109)	Percentages (%)
Reasons for using hospital services	n=109	
I was encouraged by a friend	20	18.35
It is accessible	58	53.21

It is accessible, I was encouraged by a friend, I knew about the health services offered	31	28.44
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Table 7: Factors affecting the utilization of health services at the University Hospital.

Interpretation;

More than half (53%) of the students gave the reason of accessibility for utilizing the hospital. (18%) of the students were found to have been encouraged by a friend and another (18%) of the students raised accessibility of the hospital, encouragement by a friend and had knowledge about the services that were offered. (10%) of the students claimed that they had knowledge about the services offered from the hospital.

Satisfaction levels and consideration of going back to the hospital.

Variables	Frequency	Percentage
Satisfaction with the hospital services		
No	26	23.85
Yes	83	76.15
Consideration about going back		
No	22	20.18
Yes	87	79.82

Table 8: Satisfaction levels and consideration of going back to the hospital.

Interpretation;

Of those that utilized the hospital services, (76%) of the students were satisfied with the services whereas the (24%) were not satisfied with the health services offered from the hospital. More than three-quarters of the students (80%) considered going back to University hospital and many of these argued that it's due to the accessibility while at the University premises and the remaining (20%) did not consider going back to the hospital.

Waiting time of students while at University hospital.

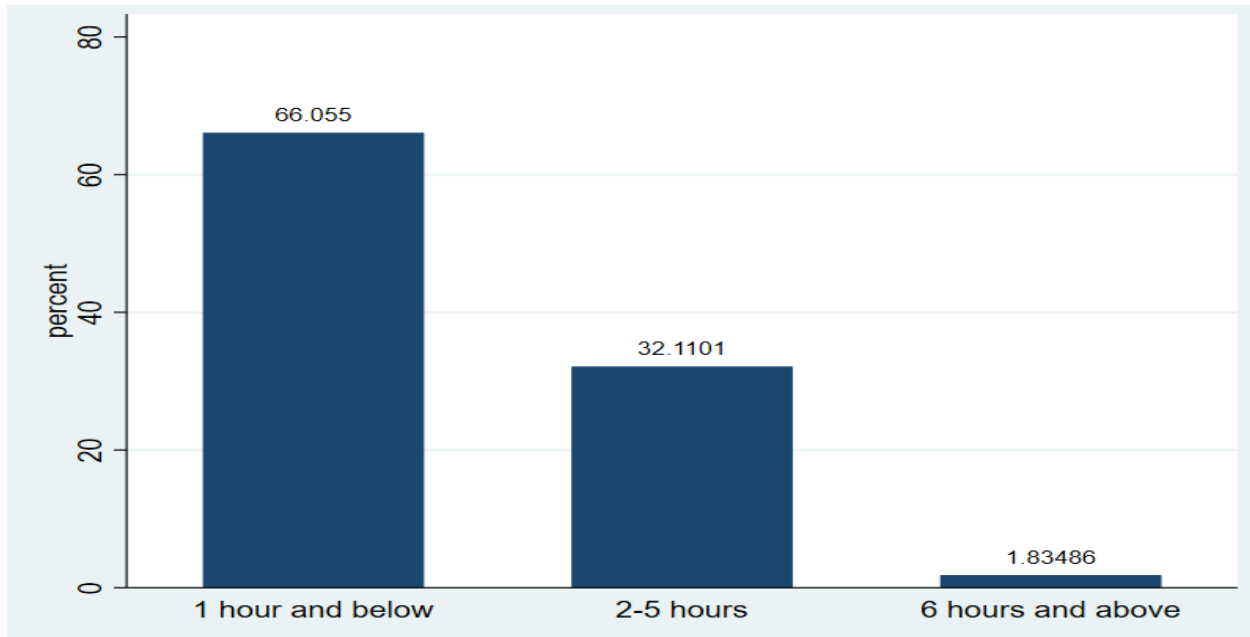


Figure 2:Waiting time at University hospital

Interpretation;

It is clearly observed that more than half of students (66%) responded that they had spent at most an hour before they are attended to by the medical officers at University hospital. Followed by those that had spent between two and five hours while waiting and contributed to (32%) and lastly those that had spent six hours and above, (2%).

Health insurance coverage

Variable	Frequency	Percentage
Whether under an insurance scheme	n=109	
No	96	88.07
Yes	13	11.93
For those under insurance	n=13	
AAR Health	1	7.69
Cigna	1	7.69

IAA	2	15.38
Prudential insurance	1	7.69
Sanlam	1	7.69
Scholarship medical coverage	4	30.77
UAP Health	2	15.38
Jubilee	1	7/69

Table 9:Health insurance coverage

Interpretation;

More than three-quarters of the students (88%) were found not to be under insurance as the remainder of (12%) of the students was found to be under insurance. Of the 96 students, more than a third of them (31%) were under the scholarship medical coverage.

Attitudes of the students towards the University hospital

Variable	Frequency	Percentage
Services offered are satisfactory	n=109	
Agree	57	52.29
Disagree	11	10.09
Not sure	17	15.60
Strongly agree	19	17.43
Strongly disagree	5	4.59
Waiting time is very short	n=109	
Agree	46	42.20
Disagree	26	23.85
Not sure	15	13.76
Strongly agree	14	12.84
Strongly disagree	8	7.34
All services are offered at University hospital	n=109	
Agree	50	45.87
Disagree	16	14.68
Not sure	24	22.02
Strongly agree	14	12.84
Strongly disagree	5	4.59
Hospital is far from campus	n=109	
Agree	36	33.02

Disagree	40	36.70
Not sure	12	11.01
Strongly agree	12	11.01
Strongly disagree	9	8.26
Drugs always available	n=109	
Agree	49	44.95
Disagree	12	11.01
Not sure	26	23.85
Strongly agree	17	15.60
Strongly disagree	5	4.59
Good state of sanitation and hygiene	n=109	
Agree	61	55.96
Disagree	10	9.17
Not sure	17	15.60
Strongly agree	17	15.60
Strongly disagree	4	3.67
Private hospitals being better off	n=109	
Agree	37	33.94
Disagree	11	10.09
Not sure	28	25.69
Strongly agree	29	26.61
Strongly disagree	4	3.67
Hospital being useful & important to students	n=109	
Agree	47	43.12
Disagree	3	2.75
Not sure	12	11.01
Strongly agree	43	39.45
Strongly disagree	4	3.67
Hospital enhances students' well being	n=109	
Agree	43	39.45
Disagree	6	5.51
Not sure	14	12.84
Strongly agree	41	37.61
Strongly disagree	5	4.59

Table 10: Attitudes of the students towards the University hospital

Interpretation;

More than half of the participants (53%) agreed to the hospital having satisfactory services and more than a third (42%) of the participants agreed that there is short waiting time at the hospital. In addition, almost half (46%) of the participants agreed that the hospital offers services necessary for the youth, more than a third (33%) agreed to the hospital being far from campus and less than a half (45%) agreed to the availability of drugs at the hospital always. More than half (56%) agreed that the hospital is in good state of sanitation & hygiene, less than a half (43%) agreed that the hospital is necessary to the students and more than a half (39%) agreed that the hospital contributes to student wellbeing. More than a third of the students (34%) agreed that other hospitals are better than the University hospital.

BI VARIATE ANALYSIS

Relationship between age of students and level of utilization of health services at University hospital.

Summary of Number of times of visiting			
AGE	Mean	Std. Dev.	Frequency
21 years and below	2.18182	0.98165	11
22 -25 years	2.27368	1.13402	95
Above 25 years	3.33333	1.15470	3

Table 11: Relationship between age of students and level of utilization of health services at University hospital.

F statistic = 1.36,

P.Value = 0.0261

Interpretation;

The value of the F-statistic is 1.36 and the corresponding p-value is 0.0261. Since the p-value is <0.05 , we reject the null hypothesis. Students that are older (25 years and above) were more likely to utilize the health services at the university hospital.

Since the ANOVA test (F-test) is significant, therefore, the age of students has a statistically significant effect on the utilization of health services at University hospital.

Relationship between gender of students and level of utilization of health services at University hospital.

Sex of students	More than twice & Twice	Never & Once	Row totals
Female	39%	61%	33.03
Male	59%	41%	66.97

Table 12: Relationship between gender of students and level of utilization of health services at University hospital.

Pearson chi2 = 3.8716

P.value = 0.049

Interpretation;

The corresponding p-value is 0.049. Since the p-value is <0.05 , we will reject the null hypothesis. This indicates that there is a significant association between gender of students and the number of times of visiting the hospital. It is concluded that the likelihood of males among students that had visited the hospital for more than two times and exactly two times is significantly higher than that of females, which is statistically significant at 95% confidence level ($p=0.049$).

Association between course offered by students and level of utilization of health services at University hospital.

COURSE	Mean	Std. Dev.	Frequency
BPS	2.55556	1.42400	9
BSAS	1.75	1.16496	8
BSTAT	2.65217	1.11227	23
BscQE	2.20290	1.06522	69

Table 13: Association between course offered by students and level of utilization of health services at University hospital.

F statistic = 1.75

P.value = 0.0161

Interpretation;

The value of the F-statistic is 1.75 and the corresponding p-value is 0.0161. Since the p-value is < 0.05 , we reject the null hypothesis. Students that pursued BSTAT were more likely to utilize the health services at University hospital, followed by BPS then BscQE and lastly BSAS.

Since the ANOVA test (F-test) is significant, therefore, the course offered by students has a statistically significant effect on the utilization of health services at University hospital.

Relationship between number of years studied at the University and level of utilization of health services at University hospital.

Years studied at University	Mean	Std. Dev.	Frequency
Less than one	2	0	1
More than two	2.2556	1.1472	90
One	2.6	1.1402	5
Two	2.4615	1.0500	13

Table 14: Relationship between number of years studied at the University and level of utilization of health services at University hospital.

F statistic = 0.8456

P.value = 0.027

Interpretation;

The value of the F-statistic is 0.8456 and the corresponding p-value is 0.027. Since the p-value is < 0.05 , we reject the null hypothesis. Students that had studied at the university for two years were found to have a greater likelihood of utilizing the health services at University hospital.

Since the p-value is < 0.05 , therefore the number of years studied at the University has a statistically significant effect on the utilization of health services at University hospital.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions from the study with an inclusion of recommendations both to Makerere University and University hospital.

5.1.1 Conclusions

- The study revealed that the majority of students were males aged between 22 and 25 years of which a significant portion pursued Bsc.QE and over three-quarters had studied at the university for more than two years
- Majority of students utilized health services at the University hospital, while a few never visited the hospital during their time at the university. Among those who used the services, a bigger number visited the hospital more than twice, a medium number visited once, and a smaller number visited exactly twice. This indicates a significant utilization of health services by the majority of students.
- The primary reason for students utilizing the hospital was accessibility and others were encouraged by friends whereas others cited a combination of accessibility, encouragement by friends, and knowledge of the services offered. This highlights the importance of accessibility and peer influence in the utilization of health services.
- The majority utilized general medical care while other services used included laboratory services, HIV/AIDS testing and counseling, safe male circumcision, family planning, vaccination and eye treatment. This indicates a diverse range of health services being accessed by students, with general medical care being the most common.

5.2 Recommendations

5.2.1 To Makerere University

The Makerere University management should devote more funds from the University budget to the University hospital to ensure supplies like drugs are in stock at all times

- It should encourage the scholarship boards that offer student scholarships within the university to utilise the University hospital as one of the health service provision centres for the students on the scholarships.
- Should strictly enforce the requirement to register with the University hospital in the first semester of study after admission through policy changes for example using the AIMS system, proof of registration with the University hospital should be part of the requirements for a student to create an AIMS account.

- Should create a link for the Makerere University hospital on the main Makerere University website to ease access to the information about the hospital.

5.2.2. To the University hospital management

- The University hospital management should ensure all duties are covered as by the duty rota so as to address long waiting time at the Hospital.
- Should ensure that the hospital supplies funded by the Makerere University management are in place for example vehicles like ambulances, doctors and other health practitioners to manage the large number of students and reduce the waiting time .

5.2.2. The University Student Guild

- In addition to the already existing first year orientation programs and semester health weeks, the Student Guild should carry out continuous sensitization and creation of awareness about the University hospital among the students for example using school guild representatives for each school.
- More so, should utilise these health weeks to promote knowledge on presence of disease even what is considered small illness to address poor health literacy among students not only focusing on the large diseases like cancer and sickle cell anemia.

5.2.3. The University students

- The students should always ensure registration with the University hospital in their first year at the university as part of the registration process to avoid future inconveniences.

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APPENDICES

Hello,

My name is Nizeyimana Benon a student at Makerere University pursuing a Bachelor's Degree of Science in Quantitative Economics. I am conducting a research study on factors affecting utilization of health services at Makerere University by students. A case study of School of Statistics and Planning. The study is aimed at providing an opportunity to obtain information about the factors that affect utilization of health services at Makerere University Hospital by students.

Your information is to be kept confidential and shall be only used for research purposes. Participation in this study is voluntary, if you do not want to answer a particular question, that is ok. Please feel free to answer the questions exactly how you feel. You are free to withdraw from the interview at any point you want without need to justify your decision.

SECTION A: DEMOGRAPHIC FACTORS		
A.1	What is your sex?	Please tick the appropriate choice 1. Male 2. Female
A.2	What is your age in completed years?	1. 21 years and below 2. 22 – 25 years 3. Above 25 years
A.3	What is your marital status?	Please tick the appropriate choice 1. Married 2. Single 3. Divorced 4. Separated 5. Widowed
A.4	What course are you offering?	Please tick the appropriate choice 1. BscQE 2. BSAS 3. BPS 4. BSTAT
A.5	For how many years have you been at Makerere as a student?	Please tick the appropriate choice 1. <1 2. 1 3. 2 4. >2

SECTION B: UTILISATION OF HEALTH SERVICES AT MAKERERE UNIVERSITY HOSPITAL.		
B.1	Have you heard about Makerere University hospital during your stay at the University? (If no, go to B5)	Select the appropriate choice 1. Yes 2. No
B.2	From where did you hear about the University hospital?	Please tick the appropriate choices 1. Fellow students 2. Student leaders 3. From the internet 4. From reading books about the University
B.3	What do you know about the University hospital?	Please tick the appropriate choices 1. The location 2. The health services offered 3. Nothing 4. Others (specify)
B.4	State the health services that you are aware of provided by Makerere University hospital. (select all that apply)	Tick the appropriate choices 1. General medical care (malaria, typhoid and brucellosis) 2. Dental services 3. Eye care/treatment 4. Laboratory services 5. Vaccination (yellow fever and hepatitis B) 6. HIV/AIDS testing and counselling 7. Safe male circumcision 8. Family planning services
B.5	If no, where do you normally attain medical care from?	Please tick the appropriate choices 1. University hospital 2. Other private & public hospitals 3. Self-medication 4. Others (specify)
B.6	What health services do you often utilize?	Please tick the appropriate choices 1. General medical care (malaria, typhoid and brucellosis) 2. Dental services 3. Eye care/ treatment 4. Laboratory services. 5. HIV/AIDS testing & counselling. 6. Family planning services 7. Others specify
B.8	Have you received any health service from the university hospital? please tick the appropriate choice (If no, go to B.10)	Please tick the appropriate choice 1. Yes 2. No

B.9	For what service(s) did you visit the University hospital?	Specify below
B.10	Why haven't you received any health service from the University hospital?	Please tick the appropriate choices 1. I haven't fallen sick 2. I don't know about the University hospital 3. I prefer other medical centres 4. Other specify
SECTION C: FACTORS THAT AFFECT THE UTILISATION OF HEALTH SERVICES AT MAKERERE UNIVERSITY HOSPITAL.		
C.1	How many times have you visited the University hospital to receive health services since joining Makerere University? (If no, go to C.9)	Please tick the appropriate choice 1. Once 2. Twice 3. More than two times 4. Never
C.2	Why did you choose to use the University hospital?	Please tick the appropriate choice 1. It is accessible 2. I was encouraged by a friend 3. I knew about the health services offered 4. Others specify
C.3	Would you consider going back to the University hospital?	Please tick the appropriate choice 1. Yes 2. No
C.4	Give reasons for your answer (Fill in the space provided)
C.5	If you have visited the hospital more than once, why did you consider to go back to the University hospital?	Please tick the appropriate choices 1. Accessible 2. High level of comfort 3. High level of privacy and confidentiality 4. Good doctor-patient relation 5. Good patient care
C.6	While at the University hospital, for how long did you wait to see the doctor/ laboratory technician? (write the time in hours)
C.7	Were you satisfied with the service offered at the University hospital?	Please tick the appropriate choice 1. Yes 2. No

C.8	How would you rate the following factors, basing on your stay at the University? (Please tick the appropriate box)				
Factor	1	2	3	4	5
State of sanitation and hygiene					
Inter personal relations i.e. doctor-patient					
Patient care offered					
Patient space					
C.9	Give reasons why you have never utilized the University hospital? (Fill in the space provided)				
C.10	When do you consider yourself sick to need medical care? Please tick the appropriate choice 1. When I have a headache 2. When I feel dizzy 3. When I have a high body temperature 4. When I am totally down 5. Others specify				
C.11	Are you under any health insurance scheme? Please tick the appropriate choice 1. Yes 2. No				
C.12	If yes, what insurance scheme are you under? Please tick the appropriate choice 1. Scholarship medical cover 2. IAA 3. AAR Health 4. UAP health 5. Others specify				
C.13	Who provides for your medical cover? Please tick the appropriate choice 1. Myself 2. My parents 3. My spouse 4. Others specify				
SECTION D: ATTITUDES TOWARDS HEALTH SERVICES AT THE MAKERERE UNIVERSITY HOSPITAL. (PLEASE TICK THE APPROPRIATE BOX)					
Statement	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
D.1	Services offered at the University hospital are satisfactory				
D.2	While at the University hospital, waiting time is very short.				

D.3	University hospital offers all services necessary for young adults.					
D.4	University hospital is far from the campus premises.					
D.5	There are drugs at the University hospital always.					
D.6	University hospital is in a good state of sanitation and hygiene					
D.7	Other private hospitals offer better health services.					
D.8	University hospital is useful and necessary to students.					
D.9	University hospital contributes to students' wellbeing.					