UNIVERSITY OF CAPE COAST

FACTORS INFLUENCING THE UTILISATION OF UNIVERSITY OF

CAPE COAST HOSPITAL BY THE UNDERGRADUATE STUDENTS

BY

FRANCIS NSAFOAH

JUNE 2013

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Thesis submitted to the Department of Health, Physical Education and Recreation of the Faculty of Education, University of Cape Coast, in partial fulfilment of the requirements for award of Master of Philosophy Degree in Health Education

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# DECLARATION

**Candidate's Declaration**

*I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.*

Candidate's Signature: …………………………  Date: ……………………

Name: Francis Nsafoah

**Supervisors' Declaration**

*We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.*

Principal Supervisor's Signature: ……………………  Date: ………………...

Name: Dr. Joseph K. Ogah

Co-Supervisor's Signature………………………..  Date:…………………

Dr. Benhard L. Boateng

# ABSTRACT

The purpose of the study was to find out which factors influence the utilisation of health care services provided at the University of Cape Coast hospital. Three research questions were posed to guide the study. The descriptive quantitative survey was used to conduct the study at University of Cape Coast in the Central Region of Ghana among levels 200-400 both resident and non-resident students. Out of the 11,698 students, 300 (107 males and 186 females with an average age of 23 years) were conveniently sampled for the study. Self-developed questionnaire items were used to elicit data from the respondents. Data collected from the respondents were subjected to both descriptive (frequencies and percentages) and inferential (Pearson's product moment correlation) statistical analysis.

The study revealed that knowledge about availability of health care services (68%) was related to utilisation (79%) of U.C.C. hospital. Majority of the undergraduate students had access to healthcare services (97%) at the U.C.C. hospital in terms of location, demand and cost. Also, perceived quality of services at the hospital (83.2%) influenced utilisation of the services at the hospital. It was recommended that the university administration should intensify the dissemination of information to make the students aware and more knowledgeable of healthcare services of the hospital. The university administration must deepen the priorities given to students on accessibility of the university hospital's services to maximise utilisation of the services.

# ACKNOWLEDGEMENTS

# DEDICATION

To Naomi, Yaa Nuako and Akua Fremah.

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# CHAPTER ONE

# INTRODUCTION

## Background to the Study

Humans find meaning in life on earth if all their basic needs are satisfactorily provided (Abel-Smith & Rawal, 1992). In other words, the provision of food, shelter, clothing and medical care is cardinal to the survival of the human race. Health is therefore an important issue in every human institution. Thus in most human societies, attempts are made to ensure that individuals have unimpeded access to healthcare. This is because good health is sine qua non to development. Abel-Smith and Rawal have again stated that any nation that does not have its citizenry being mentally, physically, emotionally and spiritually strong is bound to collapse. They further explained that if a nation does not have a very strong human resource base that is healthy, the size of its labour force will shrink. What is more, the nation's limited resource would be utilised in resolving health needs at the expense of other sectors of the economy (Abel-Smith & Rawal, 1992).

The importance of health in humanity finds expression in the steps most nations of the world have taken to ensure that their citizens have unhampered access to medical care. In most European countries for instance, attempts to make healthcare accessible to all and sundry became very much pronounced in the post world war periods. The post world wars saw many European nations coming out with national health policies to take care of the health needs of their citizens. This

is because the aftermath of the wars introduced diseases such as flu, tuberculosis, and yellow fever in the world that threatened the very existence of most Europeans. Again, the fact that the post war periods resulted in most European countries experiencing economic recession made it increasingly difficult for most Europeans to access health care. Thus, national health policies in most European nations such as Germany, Great Britain, and Russia were instituted to take care of the health needs of the people. Attempts were also made to train health assistants and medical doctors to take care of the Europeans. The corollary of these steps is that most European nations have made a landmark in resolving health challenges in their respective countries (Abel-Smith & Rawal, 1992).

While most European countries have taken giant steps in making healthcare accessible to all their citizens, conditions in Africa are such that one wonders whether Africans can succeed in making healthcare accessible to their citizens (Anyaoku, 2007). According to Anyaoku, people die each day in abject poverty and squalor. Most children are hungry and suffer from malnutrition. Most of them can neither read nor write. Anyaoku added that some African children are unable to go to school on daily basis because of poverty. Even more disturbing perhaps is the new phenomenon in a growing number of African countries where educated parents are bringing up illiterate children because they cannot afford to keep them in school. What better evidence could there be of a society going backwards? The author further posited that each year a lot of African children die under the age of five with malaria being the biggest single killer. These could have been avoided with a drug that costs not more than one US dollar per dose.

Most African women die each year from complication in pregnancy or childbirth. There are an estimated 25,000,000 people infected with HIV/AIDS in Africa. On the basis of one estimate, Africa alone accounts for two-thirds of AIDS cases in the world. Europeans and Japanese cattle have a higher standard of living than most Africans. Europe on average spends two dollars a day on subsidies on each cow which is double what the poor in Africa subsist on (Anyaoku, 2007).

Conditions such as the aforementioned have informed quite a good number of policies in Africa. For example, since the attainment of independence in 1957 from the British, Ghana has experimented and struggled with schemes to better the health status of its citizens. For example, Dr. Kwame Nkrumah (first President of Republic of Ghana) introduced a kind of scheme called National Health Service which was fully financed from state revenue. The advantage of this system was that it was progressive (high income individuals paid higher taxes than low income people). It also provided service for everybody without any costs, so it protected the poor people from financial shocks (Ossei, 2008).

Ossei (2008) further stipulate that after the overthrow of Dr. Kwame Nkrumah, this scheme was stopped. For instance in 1971 the government introduced user fees to patients for hospital procedures. Initially, the fees were small but the principle of user pays was established. In 1983 Ghana's economy went into recession. This brought the "cash and carry" system into operation.

Under the cash and carry system patients were required to bear the full cost of medication and care. The rationale behind the full cost recovery was that there would be an increase in resources to the healthcare facilities which would allow

them to expand and upgrade the services, and improve access to health care. Again, it was believed that the cash and carry system would help reduce unnecessary visits by patients who would abuse the health insurance system because it was free (Ossei, 2008).

However, the cash and carry system was perceived to have failed the country because the system was not within the economic means of most Ghanaians resulting in needless deaths. Based on this perception and political promises made by the New Patriotic Party before year 2000 election, the president John Agyekum Kuffuor launched on Thursday 18th March 2003, a National Health Insurance Scheme (NHIS) designed to offer affordable medical care, especially to the poor and vulnerable among Ghana's 22 million people (Ossei, 2008).

In 2004, the National Health Insurance Scheme was introduced. The objective of this scheme, according to Ossei (2008), was to allow everybody to make contributions into a fund so that in the event of illness contributors could be supported by the fund to receive affordable healthcare in our health facilities. It was thus meant to reduce the cost of receiving healthcare in the country as a means of making health facilities readily available to every Ghanaian.

In spite of the introduction of the NHIS most Ghanaians still do not have access to healthcare. This is because Fosu (2006) has postulated that two-thirds of the Ghanaian population is living in the rural area where healthcare facilities are non-existent. Since most rural communities in the country do not have access to basic healthcare, the best deduction we can make is that indeed even with the introduction of the scheme many Ghanaians still do not have access to health care.

In the rural communities people continue to die from avoidable sicknesses such as malaria, cholera, diarrhoea and the like (Fosu, 2006).

The situation of difficulty in accessing healthcare is not limited to the rural communities but even in urban centres. This is because the scheme that is intended to attend to the healthcare of Ghanaians is beset with challenges such as corrupt registration officers and inadequate provision of logistics. Consequently, healthcare challenge in the urban centres in Ghana is as real as in the rural communities (Fosu, 2006).

Indeed, as has been observed, the situation finds deeper expression in the undergraduate students' access to healthcare in the nation's tertiary institutions. In most of the tertiary institutions in the country, hundreds of students share healthcare facilities with the general public. In University of Cape Coast (U.C.C.) for instance, though the university hospital is a public hospital, University Hospital Annual Report (2008) stipulate that its prime mission is to serve the health needs of the university community (students, staff and their dependents below age 18) yet scores of people from outside the university community seek medical care from the University hospital daily.

According to Badu (2004), facilities and resources are appreciated based on the value placed on them by their users. He explained that what may be considered a resource in one community may not be appraised as such in other communities. Therefore, for facilities and resources to be valued in a particular community they must serve the purpose of their value in the community. Carr (2008) announced that healthcare facilities in a community may be appreciated depending on the value their patrons put on them. In Ghana, some of these

facilities, especially hospitals are deserted for others or other means of treatment because of perceived low quality of service and/or lack of facilities and required services in those hospitals (Ghana Health Services, 2006).

Hospitals are supposed to provide a broad range of medical services to the sick, injured or pregnant patients. Hospitals employ medical, nursing and support staff to provide in-patient care to people who require close medical monitoring and out-patient care to people who need treatment but not constant medical attention. Sandrick (2008) indicated that there are required services a hospital must provide for its patrons in order to achieve its objectives.

The services provided by the hospitals are, to a large extent, determined by the status of the hospital. For instance Sandrick (2008) has explained that general hospitals, regardless of their size, provide patients with a wide range of services including consultation and emergency treatment, surgery, family planning consultation, x-ray services, ante-natal care and environmental sanitation among others. Specialised hospitals in contrast, may concentrate on a particular group of patients such as children, women or a disease such as cancer.

Ghana Health Service (GHS) 2007 annual report has indicated that about 35% of Ghanaian hospitals are equipped with the required facilities and services to serve the communities they operate in the treatment of various common ailments common in the country. The clarion call these days by the GHS is the effective utilisation of the services and facilities provided in these hospitals in the country.

## Statement of the Problem

Marcia and Kathleen (1989) cited six models that explained utilisation of healthcare services namely; demographic models, social structural models, social

psychological models, family resource model and organisational models. In the sixth model (organisational models), the authors explained that the style of medical practice, the system for the delivery of care, the site at which services are provided, attitude of health personnel and the type of health workers who provide the care affect the utilisation of healthcare services.

U.C.C. hospital is one of the hospitals in the Cape Coast Metropolis that offer general health services primarily to the students, staff and their dependants below age 18 of the university (University Hospital Annual Report, 2008). The university which started in 1962 with 155 students currently has a total student population of 35,922; 14,815 regular students, 2,146 sandwich (vacation) students and 18,018 distant learners who all have right of access to the university hospital. The hospital offers maternity service, dental service, x-ray service, general in-patient and out-patient services and primary healthcare services. It is moderately equipped with equipment, facilities, and supporting staff for the smooth running of the hospital (University Hospital Annual Report, 2008).

Notwithstanding the availability of these services and facilities at the hospital, it has been observed that most of the undergraduate students of the university seek medical attention outside the university hospital which was specifically established to serve the health demands of the university population (University Hospital Annual Report, 2008).

## Purpose of the Study

The purpose of the study was to find out which factors influence the utilisation of healthcare services provided at the U.C.C. hospital.

## Research Questions

The following research questions guided the study;

1.  Does students' knowledge of services available at U.C.C. hospital influence the utilisation of the U.C.C. hospital by the undergraduate students?

2.  To what extent do undergraduate students at U.C.C. have easy access to healthcare services in U.C.C. hospital?

3.  How does the perceived quality of service at the U.C.C. hospital influence the utilisation of U.C.C. hospital by the undergraduate students?

## Significance of the Study

The study contributes to the understanding of the tenets of utilisation of healthcare facilities, especially hospitals in university campuses. The study also aimed at serving as a guide for future researchers in the field of health, especially hospital services. It also aimed at helping stakeholders (both private and public) and officials of various tertiary institutions to make budgetary allocations for the development of appropriate health services for use.

## Delimitation of the Study

The study population was delimited to students of levels 200, 300 and 400 resident in the traditional halls of the university namely; Atlantic, Adehye, Casely Hayford, Kwame Nkrumah, Oguaa, and Valco halls, as well as resident students in the private hostels namely; Baduwa hostel, Dr. Aziz hostel, and Oye-Inn hostel. These private hostels were chosen because of their capacity of accommodating a greater number of the non-resident students of the university.

Level 100s were excluded because it was envisaged that by the time of the

administration of the questionnaire they may not have been adequately exposed to the university hospital.

## Limitations of the Study

The sample size of 300 respondents out of the 11,698 accessible population was not representative enough and therefore makes it difficult to generalise the findings of the study. Also, the use of descriptive statistics of frequency counts and percentages are not enough to generate high order statistical assumptions thus, preventing effective generalisation of the study results.

## Definition of Terms

**Utilisation**: Attendance to the university hospital for the treatment of any ailment.

**Undergraduate students**: Registered regular students of the university who are in levels 200-400.

**In-Out-Out-Out**: An accommodation policy in U.C.C. where first year students are allowed to stay in the university's halls of residence for one academic year and stay out thereafter.

**Fresh men and women**: First year students admitted at the university to pursue various degree courses.

**Ayurvedic medicine**: A traditional Hindu system of healing that assesses person's constitution and lifestyle, and recommends treatment based on herbal preparations, diet, yoga, and purification.

**Unani herbal medical practice**: A system of healing used in South Asia that places more emphasis on the treatment of symptoms than on the patient's general physical and spiritual conditions.

**Triage nurse**: Nurses who are trained to prioritise sick or injured people for treatment according to the seriousness of the condition or the injury.

**Bioassay laboratories**: Laboratories that specialise in determining the concentration or potency of a substance such as a drug by measuring its effects on the organism.

**Geriatic hospital**: Hospitals that specialise in diagnoses, treatment, and prevention of illness in senior citizens.

**Pre-listerian era**: The era before the existence of a rod-shaped aerobic parasitic bacterium that causes diseases, especially listeriosis.

**Resident student**: Students of the university who have officially been given permission to reside in the University's traditional halls.

**Non-Resident student**: Students who reside outside the University's traditional halls of residence.

### Organisation of the Rest of the Study

The rest of the study was organised in four chapters. Chapter two dwelt on review of related literature on the variables selected for the study. It hovered on the concept of health services and resource, the theoretical underpinnings of health utilisation, utilisation of healthcare services, health seeking behaviour and utilisation, availability of health resource and utilisation, and quality of healthcare services and utilisation. Chapter three discussed the methods and techniques used to collect and analyse data. The research design, population, sample and sampling procedure, and data collection and analysis were covered. The results and discussion of the data received attention in chapter four. The fifth chapter dealt

with the summary of research findings, conclusion and recommendations. Suggestions for further research were also covered.

## CHAPTER TWO

## REVIEW OF RELATED LITERATURE

The purpose of the study was to find out which factors influence the utilisation of healthcare services provided at the University of Cape Coast hospital. This chapter reviewed related literature on the research. The chapter was reviewed under the following variables for the study;

1. The concept of health services and resource

2. Utilisation of healthcare services

3. Health seeking behaviour and utilisation

4. Availability of health resource and utilisation

5. Quality of healthcare services and utilisation

### The Concept of Health Services and Resource

According to the World Health Organisation [WHO] (2009), health services include all medical services dealing with the diagnosis and treatment of disease, or the promotion, maintenance and restoration of health. They include personal and non-personal health services. U.S. Public Health Service (1991) has explained the personal and non-personal health workers to include all people engaged in actions whose primary intent is to enhance health and the non-personal to include all physical structures, expendables and non expendable resources. Health services are the most visible functions of any health system, both to users and the general public.

Service provision refers to the way inputs such as money, staff, equipment and drugs are combined to allow the delivery of health interventions. Effective health service delivery depends on having some key resources: motivated staff, equipment, information, finance, and adequate resources. Improving access, coverage, and quality of services depends on these key resources being available, on the ways services are organised and managed, and on incentives influencing providers and users. Health services, be they promotion, prevention, treatment, or rehabilitation, may be delivered in the home, the community, the workplace, or in health facilities (WHO, 2009).

In any health system, good health services are those which deliver effective, safe, good quality, personal and non-personal care to those that need it, when needed, and with minimal waste. While many questions remain about how to improve the Organisation and management of health service delivery so as to achieve better and more equitable coverage and quality, communities can draw on experiences from other communities that have achieved modest results with regards to healthcare delivery (WHO, 2009). Knowing who is getting what services, from where, and how effective they are, has immediate relevance for decisions on the Organisation and management of health services. The WHO (2009) has again indicated that health services should be organised around people's needs and expectations. Carr (2008) supported this assertion by stipulating that both personal and non-personal health services should address the needs of the users.

Carr (2008) further postulated that categorisation of healthcare facilities differ from one country to the other. In Carr's opinion, healthcare facility can be

categorised on the services it provides. For example, Health posts or centres are usually manned by senior nurses or medical assistants. Health posts by its status are not supposed to detain patients beyond 12 hours. Cases above their limit are supposed to be referred to higher facility for attention.

A clinic (or an outpatient clinic) is a small private or public health facility that is devoted to the care of outpatients, often in a community, in contrast to larger hospitals, which also treat inpatients. Some grow to be institutions as large as major hospitals, whilst retaining the name clinic. These are often associated with a hospital or medical school (Wikipedia Free Encyclopedia, 2010).

National Bureau of Statistics of China (2005) has intimated that there are several kinds of clinics depending on their specialty. For example, general practice clinics are run by one or several general practitioners or practice managers. Physiotherapy clinics are usually operated by physiotherapists and psychology clinics by clinical psychologists, and so on for each health profession. Some clinics are operated in-house by employers, government organisations or hospitals and some clinical services are outsourced to private corporations, specialising in provision of health services. In China, for example, owners of those clinics do not have formal medical education. Healthcare in India, China, Russia, and Africa is provided to vast rural areas by mobile health clinics or roadside dispensaries, some of which integrate traditional health practices. In India these traditional clinics provide ayurvedic medicine and unani herbal medical practice. In each of these countries traditional medicine tends to be a hereditary practice (Wikipedia Free Encyclopedia, 2010).

The function of clinics will differ from country to country. For instance, a local general practice run by a single general practitioner will provide primary health care, and will usually be run as a for-profit business by the owner whereas a government specialist clinic may provide subsidized specialised health care. Some clinics function as a place for people with injuries or illnesses to come and be seen by triage nurse or other health worker. In these clinics, the injury or illness may not be serious enough to warrant a visit to an emergency room, but the person can be moved to one if required. Treatment at these clinics is often less expensive than it would be at a casualty department. Also, unlike an Emergency Room, these clinics are often not open on a 24 x 7 x 365 basis. They sometimes have access to diagnostic equipment such as X-ray machines, especially if the clinic is part of a larger facility. Doctors at such clinics can often refer patients to specialists if the need arises (Wikipedia Free Encyclopedia, 2010).

Notwithstanding all these categorisations of clinics, Seymour (1987) has grouped clinics into;

1. Free clinic which provides free or low cost healthcare for those without insurance.

2. A Retail Based Clinic is housed in supermarkets and similar retail outlets providing walk in health care, which may be staffed by nurse practitioners.

3. A general out-patient clinic is a clinic offering a community general diagnoses or treatments without an overnight stay.

4. A polyclinic is a place where a wide range of healthcare services (including diagnostics) can be obtained without need of an overnight stay

5. A specialist clinic is a clinic with in-depth diagnosis or treatment on diseases of specific parts of the body. This type of clinic contrasts with general out-patient clinics, which deal with general diseases.

6. A Sexual health clinic deals with sex-related problems, such as prevention and treatment of sexually transmitted infections.

7. A fertility clinic aims to help couples and individuals to become pregnant.

8. An abortion clinic is a medical facility providing certain kinds of outpatient medical care, including abortion to women. Such clinics may be public medical centres or private medical clinics.

A hospital is an institution for health care, providing patient treatment by specialised staff and equipment, and often, but not always providing for longer-term patient stays. Today, hospitals usually are funded by the public sector, by health organisations, (for profit or non-profit), health insurance companies or charities, including direct charitable donations. In history, however, hospitals often were founded and funded by religious orders or charitable individuals and leaders. Similarly, modern-day hospitals are largely staffed by professional physicians, surgeons, and nurses, whereas in history, this work usually was performed by the founding religious orders or by volunteers (Risse, 1990).

Some patients go to a hospital just for diagnosis, treatment, or therapy and then leave ('outpatients') without staying overnight; while others are 'admitted' and stay overnight or for several weeks or months ('inpatients'). Hospitals usually are distinguished from other types of medical facilities by their ability to admit and care for inpatients and the others often are described as a clinic.

Risse (1990) has grouped hospitals into general, specialised, and teaching.

**General Hospital**

The best-known type of hospital is the general hospital, which is set up to deal with many kinds of disease and injury, and typically has an emergency department to deal with immediate and urgent threats to health. A general hospital typically is the major healthcare facility in its region, with large numbers of beds for intensive care and long-term care; and specialised facilities for surgery, plastic surgery, childbirth, bioassay laboratories, and so forth. Larger cities may have several hospitals of varying sizes and facilities. Some hospitals have their own ambulance services whilst others rely on public or private ambulance service.

**Specialised Hospital**

Types of specialised hospitals include trauma centres, rehabilitation hospitals, children's hospitals, seniors' (geriatric) hospitals, and hospitals for dealing with specific medical needs such as psychiatric problems, certain disease categories, and so forth.

A hospital may be a single building or a number of buildings on a campus. Many hospitals with pre-twentieth-century origins began as one building and evolved into campuses. Some hospitals are affiliated with universities for medical research and the training of medical personnel such as physicians and nurses, often called teaching hospitals. Worldwide, most hospitals are run on a non-profit basis by governments or charities.

**Teaching Hospital**

A teaching hospital combines assistance to patients with teaching to medical students and nurses and often is linked to a medical school, nursing school or university. Hospitals vary widely in the services they offer and therefore, in the

departments they have. They may have acute services such as an emergency department or specialist trauma centre, burn unit, surgery, or urgent care. These may then be backed up by more specialist units such as cardiology or coronary care unit, intensive care unit, neurology, cancer centre, and obstetrics and gynaecology.

Some hospitals have outpatient departments and some have chronic treatment units such as behavioural health services, dentistry, dermatology, psychiatric ward, rehabilitation services, and physical therapy. Common support units include a dispensary or pharmacy, pathology, and radiology, maternity unit, Ear, Nose and Throat unit (ENT), and on the non-medical side, there often are medical records departments and/or release of information department.

While hospitals by concentrating equipment, skilled staff and other resources in one place, clearly provide important help to patients with serious or rare health problems, hospitals also are criticised for a number of faults, some of which are endemic to the system, and others which develop from what some consider wrong approaches to health care.

One criticism often voiced is the 'industrialised' nature of care, with constantly shifting treatment staff, which dehumanises the patient and prevents more effective care as doctors and nurses rarely are intimately familiar with the patient. The high working pressures often put on the staff exacerbate such rushed and impersonal treatment. The architecture and setup of modern hospitals often is voiced as a contributing factor to the feelings of faceless treatment many people complain about.

In most of developing countries where hospitals care for lot patients in day, patients often complain about longer waiting time to be attended to at the hospital. Behaviour of service providers, especially nurses, has often been a major complaint issue.

Another criticism is that hospitals are in themselves dangerous places for patients, who are often suffering from weakened immune systems, either due to their body having to undergo substantial surgery or because of the illness which placed them in the hospital itself. Most of these criticisms stem from the pre-Listerian era. However, even in modern hospitals, hospital-acquired infections can be an important cause of hospital related morbidity, and sometimes mortality. These criticisms usually influence the patient assessment of the efficacy of treatment given in particular, and hospital facility in general, thereby influencing his/her future attendance at a particular hospital for treatment.

It can be gleaned from the above literature that availability of healthcare resources is pertinent to healthcare delivery and utilisation. Effective health service delivery depends on having some key resources: motivated staff, equipment, information, finance, and adequate resources. There are various types and categories of healthcare resources. One's appraisal of these types and categories will better position the person to make useful decision in utilising a healthcare resource.

### Theoretical aspects of use of Healthcare Services

Various conceptual models have been developed to operationalise the complex and multi-dimensional issue of healthcare utilisation. These

multifactorial models offer some theoretical frameworks to be used in the research on the use of healthcare services to explain utilisation.

**Andersen's Behavioural Model**

The Andersen model is a conceptual model aimed at demonstrating the factors that lead to the use of health services. According to the model, usage of health services (including inpatient care, physician visits, dental care etc.) is determined by three dynamics: predisposing factors, enabling factors, and need. Predisposing factors can be characteristics such as race, age, and health beliefs. For instance, an individual who believes health services are an effective treatment for an ailment is more likely to seek care. Examples of enabling factors could be family support, access to health insurance, one's community etc. Need represents both perceived and actual need for healthcare services. The original model was expanded through numerous iterations and its most recent form models past the use of services to end at health outcomes and includes feedback loops.

A major motivation for the development of the model was to offer measures of access. Andersen discusses four concepts within access that can be viewed through the conceptual framework. Potential access is the presence of enabling resources, allowing the individual to seek care if needed. Realized access is the actual use of care, shown as the outcome of interest in the earlier models. The Andersen framework also makes a distinction between equitable and inequitable access. Equitable access is driven by demographic characteristics and need whereas inequitable access is a result of social structure, health beliefs, and enabling resources.

The initial behaviour model was an attempt to study of why a family uses health services. However, due to the heterogeneity of family members the model focused on the individual rather than the family as the unit of analysis. Andersen also states that the model functions both to predict and explain use of health services.

A second model was developed in the 1970s in conjunction with Andersen and colleagues at the University of Chicago. This iteration includes systematic concepts of healthcare such as current policy, resources, and organisation. The second generation model also extends the outcome of interest beyond utilisation to consumer satisfaction.

The next generation of the model builds upon this idea by including health status (both perceived and evaluated) as outcomes alongside consumer satisfaction. Furthermore, this model includes personal health practices as an antecedent to outcomes, acknowledging that it is not solely the use of health services that drives health and satisfaction. This model emphasises a more public health approach of prevention as advocated by Evans and Stoddart wherein personal health practices (that is smoking, diet, exercise) are included as a driving force towards health outcomes.

The latest iteration of Andersen's conceptual framework focuses on the individual as the unit of analysis and goes beyond healthcare utilisation, adopting health outcomes as the endpoint of interest. This model is further differentiated from its predecessors by using a feedback loop to illustrate that health outcomes may affect aspects such as health beliefs, and need. By using the framework's relationships we can determine the directionality of the effect following a change

in an individual's characteristics or environment. For example, if one experiences an increase in need as a result of an infection, the Andersen model predicts that this will lead to an increased use of services (all things being equal). One potential change for a future iteration of this model is to add genetic information under predisposing characteristics. As genetic information becomes more readily available it seems likely this could impact health services usage, as well as health outcomes, beyond what is already accounted for in the current model.

The model has been criticised for not paying enough attention to culture and social interaction, but Andersen argues that this social structure is included in the predisposing characteristics component. Another criticism was the overemphasis of need at the expense of health beliefs and social structure. However, Andersen argues need itself is a social construct. This is why need is split into perceived and evaluated. Where evaluated need represents a more measurable or objective need, perceived need is partly determined by health beliefs such as whether or not people think their condition is serious enough to seek health services.

**Purola's Model**

In the model developed by Purola, the basic setting for the use of healthcare services is firstly, the disease in the medical sense and secondly, the perceived illness as an originator of behavioural reactions. Thirdly, the predisposing and enabling factors act as modulators of the person's behavioural reactions. (Purola, 1971; Purola, 1972).

**Antonovsky's Model**

Antonovsky's model of utilisation includes host characteristics, characteristics of the medical institutions, and characteristics of the larger socio-

cultural environment. This model takes into account the fact that medical care constitutes a small social system which may be used to diffuse social and psychological needs when the system is available, when its use is socially encouraged, and when it is receptive to peoples' needs and orientation. (Antonovsky, 1972).

**Health Belief Model**

The health behaviour of a population can also be explained using the health belief model originally conceptualised by Becker (as cited in Janz & Becker, 1984). In this model, the person's reactions to symptoms of illness are modified by various factors including motivation, the experienced threat of illness and coping factors. The model includes an interesting concept "cue to action", which means that different cues, information or recommendations may act as the final stimulus to the behaviour carried out, for example an encounter with a physician (Leavitt, 1979.)

**Biopsychosocial Model**

The biopsychosocial model originally introduced by Engel (1977) has not been used as a conceptual basis of research on healthcare utilisation (Lindsey, 2006). The biopsychosocial model is based on the general systems theory of Von Bertalanffy (1968), which implies that all levels of an organisation or system, beginning from molecules and cells and ending up with society or biosphere, are linked to each other in a hierarchical relationship, so that a change in one affects changes in the others.

Theoretically, as Engel pointed out, systems theory provides a conceptual approach suitable not only for the proposed biopsychosocial concept of disease,

but also for studying disease and medical care as interrelated processes (Engel, 1977). Thus, the biopsychosocial approach would benefit the research on healthcare utilisation which aims to understand more thoroughly the relationships between various explanatory factors (for example somatic diseases, psychological factors and social environment [such as family]) of healthcare utilisation.

According to Berg (1990), women use more healthcare services than men in Ghana, and the use of healthcare services is higher in the lower social classes than in higher social class. In contrast, Häkkinen (1991) has observed that utilisation of healthcare facilities among the educated was higher than the uneducated. He further revealed that African students' usage of a healthcare facility is determined by a lot of factors; kind of disease, knowledge of availability of a particular service, ability to pay, and quality of service provided at the facility. He further observed that since most of the public universities operate the health insurance system, students do not hesitate to seek medical attention whenever they need to access. He however observed that waiting time at the hospital was a major setback.

About 62% of the Ghanaian population visit a physician at least once a year (Ghana Health Service, 2007). The average number of visits to general physicians in health centres in 1998 was about 2.1 visits per year in the whole country. This indicates a total of about 8.8 million visits per year (WHO, 2002). The private medical sector comprises about 1.9 million visits to physicians per year (WHO, 1997). According to WHO (1989), the mean number of visits to physicians was 2.2 in 1987 of which 2.0 were general hospitals' visits and 0.2 were visits to medical specialists. Of all visits to physicians, including outpatient visits to

hospitals, 44% were visits to general physicians in health centres. (Fosu, 2006). In an interview study of the Ghanaian population, about 7% of men and 9% of women visited general hospitals more often than eight times a year (WHO, 1999).

Various studies have been conducted in Ghana to find the utilisation of healthcare facilities. The reports have indicated that the use of health services has increased over the years. This increase has been attributed to lots of factors. For example, Amankwaah (2002) reports that the increase in the use of healthcare service is related to age, knowledge of availability of the healthcare service(s), proximity, and increasing number of chronic diseases. Yakubu (2006) has asserted that the increase in use of healthcare facilities is mainly due to the introduction of Health Insurance into the existing payment system in Ghanaian healthcare facilities.

It can be observed from the literature reviewed under this segment that utilisation of healthcare resources is dependent on such factors as, the availability of the resource, availability of information of the resource, access (proximity and cost) to the resources and the  perceived quality of the resource.

**Theories of Reasoned Action and Planned Behaviour**

The theories of Reasoned Action and Planned Behaviour are combined because one is an extension of the other (Ajzen, 1988; Ajzen & Fishbein, 1974). The theory of reasoned action (TRA) and theory of planned behaviour (TPB) are concerned with the factors that influence a person's decisions about his or her behaviour. According to the theory of reasoned action, proper decisions about one's behaviours are based on information and beliefs about their actions, the outcome they expect from their actions, and the value they place on these

outcomes. The most important component of this theory however, is that an individual's intentions form the best predictors of actual behaviour. The intention to perform certain actions reflects the person's attitudes about the behaviour and about subjective norms of that behaviour. The attitude toward exercise for instance, reflects the individual's beliefs about the benefits and consequences of positive and negative evaluations of engaging or not engaging in regular exercise.

One limitation of the models' attitude component, pointed out by Buckworth and Dishman (2002) is that a person may believe that exercise is very healthy, yet conclude that there is a lack of time in the day to exercise regularly. Also, one may affirm the importance of seeing a physician to diagnose a nagging or chronic ailment but fail to see one when ill. The second component of TRA reflects the individual's perceptions about the importance that others place on the behaviour and the person's incentive to meet others' expectations. Thus, a person who is surrounded by one or more friends or family members who habitually seek healthcare is more likely to seek healthcare than an individual whose friends and family do not. It is understandable then, that developing social links as part of adhering to a facility often results in better adherence to the facility (Warburton, Nicol & Bredin, 2006).

Ajzen and Fishbein (1974) conclude that sometimes attitude is the primary predictor of intentions, while other times it is the social norm within which a person functions. In his modified follow-up of TRA, Ajzen (1985) added a third component to predicting exercise behaviour "perceived behavioural control", that is, an individual's perception that he or she has the resources (that is, skill and ability) and the opportunity to perform the behaviour or to attain the goal. Thus,

an individual with unrealistic expectations (for example, losing considerable weight; vastly increased musculature; running a marathon) will likely result in low perceived control about the situation, leading to disappointment and helplessness about their apparent inability to meet fitness-related goals. Subsequent low expectations about future success may result in quitting future exercise participation. Implications for supporting TPB through higher perceived behavioural control include establishing realistic exercise goals, and experiencing perceived skill and performance quality early in the exercise programme (for example, perceptions of improvement and using proper technique). Hausenblas, Carron and Mack (1997) concluded, based on their meta-analysis of related studies that "individuals have the greatest commitment to exercise when they hold favourable beliefs about exercise and believe that they can successfully perform the behaviour" (p. 45), a concept called perceived competence.

**Self-Efficacy Theory**

Self-efficacy (SE) is a set of beliefs and expectations about how capable a person feels in performing the necessary behaviours to achieve a desirable outcome (Bandura, 1977). An exerciser may feel high self-efficacy about engaging in a weight-training programme to gain strength, yet feel far less self-efficacy in performing other exercises. In a similar vein a tuberculosis patient may feel high self-efficacy to take drugs prescribed at the DOTs clinic, but feel far less self-efficacy in taking other drugs for other sicknesses. High self-efficacy about the activity usually results in a higher likelihood that the person will begin and adhere to that activity. Self-efficacy is specific to a behaviour and situation, and is

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not usually generalized to other types of tasks (for example, competitive sport versus exercise) or situations (for example, running competition).

Self-efficacy affects a person's expectations of success and failure, and therefore, influences a person's selection of those activities, the degree of effort expended on the activities, and the extent to which a person will persist at the activities, especially after experiencing failure or not meeting expectations. For instance, exercisers who do not experience rapid success, that is, meet goals quickly, will presume that the task is of insurmountable difficulty and quit exercising, perhaps due to low self-efficacy. In their review of over 100 studies on the effects of self-efficacy on exercise behaviour, McAuley and Mihalko (1998) concluded that, higher self-efficacy leads to greater likelihood of exercise participation and maintenance, if the individual: (a) is allowed to select the type of exercise behaviour undertaken, a concept called perceived choice, (b) possesses certain thought patterns, such as optimism and feelings of intrinsic motivation (that is, exercising for pleasure and enjoyment), (c) expends optimal effort and feels capable of redoubling efforts in the face of barriers and challenges, and (d) has reasonably high expectations of successful performance and desirable outcomes. To McAuley and Mihalko, the strongest influence of self-efficacy on exercise behaviour is performance accomplishments. Similarly, the strongest influence of self-efficacy on health seeking behaviour is total and healthy lifestyle accomplishments. Improving self-efficacy as a method to favourably influence health seeking behaviour has considerable promise however, it is likely that additional moderating factors must be included to help students maintain this habit.

**The Disconnected Values Model**

The process of behaviour change is a challenging process because habits and routines are firmly entrenched in a person's lifestyle (Ockene, 2001). Vigorous exercise requires effort and some degree of physical discomfort in order to obtain the well-known benefits. Borg (1998) indicated that the degree of discomfort often measured as "ratings of perceived exertion" (p. 115) directly reflects a person's body weight, current fitness level, and the person's sedentary lifestyle.

The disconnected values model (DVM), according to Ockene (2001), is predicated on two postulates that define self-motivated behaviour and have strong implications toward promoting exercise behaviour. The first postulate is that self-motivated behaviour reflects a person's deepest values and beliefs about his or her passion, that is, their mission or passion (Loehr & Schwartz, 2003). An individual's acknowledged mission reflects their desire to become fully engaged in activities that really matter in meeting personal goals and future aspirations. The second postulate is that the primary motivators of normal human behaviour consist of three stages: (a) to identify a deeply held set of values, (b) to live a life consistent with those values and (c) to consistently hold oneself accountable to them (Buckworth & Dishman, 2002). Ostensibly, an individual whose values include health, family, and performance are excellent examples of three common values that are self-motivated. The DVM posits that developing an exercise habit rests, at least in part, on recognizing the inconsistency between one's negative habits (that is, lack of regular exercise) and their values, and then to institute a new, positive habit of exercise that is strongly connected to one's values (Ockene, 2001).

DVM is saddled with negative habits and performance barriers. The model begins by acknowledging the existence of negative habits, defined as thoughts, emotions, or tasks that are experienced regularly and acknowledged by the person as not healthy or in the person's best interests, yet remain under control. Vahid, Ramin, Farzin, Mohammad and Mohammad (2004) posit that the primary reason individuals engage in negative habits is because the perceived benefits of maintaining the habit outweigh its costs and long-term consequences. Negative habits (for example, lack of exercise, poor sleep and nutrition) lead to barriers in performance, such as fatigue, negative mood state, and lack of concentration.

There are benefits to every negative habit. If there were no benefits to a negative habit, the negative habit would not continue. As discussed earlier, there are possible costs to not exercising. These include reduced fitness, weight gain, and higher stress and anxiety, both of which are reduced due to exercise (Crawford & Eklund, 1994; Frost & DiBartolo, 2002). The long-term consequences of these costs include poorer physical and mental health, reduced quality of life, and in some cases, shorter lifespan (Anshel, 2006; Lox, Martin & Petruzzello, 2003). However, if the costs are far greater than the benefits, and the person concludes that these costs are unacceptable, then a change in behaviour is far more likely to occur. Persons can decide to initiate an exercise programme ostensibly because there exist a disconnection between their negative habit of non-exercise and their deepest values and beliefs. This is followed by developing a self-regulation detailed action plan.

## Health Seeking Behaviour

There is a growing literature on health seeking behaviours and the determinants of health services utilisation, especially in the context of developing countries. This segment presents an extensive literature review of the situation in developing countries and relates the similar factors responsible for the shaping up of a health seeking behaviour and health service utilisation in developing countries particularly Ghana.

Understanding human behaviour is prerequisite to change behaviour and improved health practices. Experts in health interventions and health policy became increasingly aware of human behavioural factors in quality healthcare provision. In order to respond to community perspectives and needs, health systems need to adapt their strategies, taking into account the findings from behavioural studies (Susanna, Joan & Nyamongo, 2003).

Susanna et al. (2003) have indicated that knowledge, attitudes and practices (KAP) surveys are possibly the most frequently used studies in health-seeking behaviour research. They maintained that knowledge is usually assessed in order to see how far community knowledge corresponds to biomedical concepts. According to Susanna et al., typical questions include knowledge about causes and symptoms of the illness under study. People's report on knowledge which deviates from biomedical concepts is usually termed beliefs. This distinction between knowledge and beliefs markedly deviates from the use of terms in psycho-social theory where beliefs have a much broader meaning and include also beliefs concerning perceptions about oneself.

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Tannahill, Tannahill and Downie (1998) mentioned the illustrative example where the belief that "I'm not good at sports" may restrict a person's readiness to engage in health exercise. Also beliefs about illness severity and susceptibility are seldom enquired. According to Tannahill et al., enquiry about other types of knowledge tends to be highly neglected in KAP studies. The authors further indicated that very little information is sought on knowledge about the health system (access, referrals, opening hours, cost-sharing schemes etc.).

Attitudes form a more complicated issue, and in fact, despite their explicit inclusion in the study type, they are scarcely accounted for in KAP surveys. Attitude has been defined by Ribeaux and Poppleton (1978) as "a learned predisposition to think, feel and act in a particular way towards a given object or class of objects". As such, attitudes result from a complex interaction of beliefs, feelings, and values. They are important in designing health promotion campaigns which aim to change attitudes, for example attitudes towards condom use for prevention of AIDS. Attitudes may be inferred from a variety of statements and answers, but direct asking is usually problematic since people often respond in terms of what they think is the right response. In particular, attitudes towards traditional medicine might be hidden.

Attitudes are not easy to obtain however, they are central to understand behaviour, an element which is better acknowledged in cognitive models. Questions related to practices in KAP surveys usually enquire about the use of preventive measures or different healthcare options. Normally, hypothetical questions are asked (what do you do if your child is ill?). They therefore hardly permit statements about actual practices. Rather, they yield information on

people's normative behaviours or on what they know should be done (or they expect the interviewer to hear). In this sense, they check well on people's knowledge about practices, as heard in educational campaigns for example.

Special caution needs to be given to deductions from KAP survey data about explaining health-seeking behaviour (Yoder, 1997). Above all, KAP surveys yield highly descriptive data without providing an explanation for why people do what they do. Unfortunately, many investigators who use KAP studies do use them, implicitly or explicitly, to explain health-seeking behaviour. Their studies are based on the underlying assumption that there is a direct relationship between knowledge and action. They assume that by changing knowledge, behaviour is automatically changed as well. To give an example, one might expect that if people recognise the signs and symptoms of let's say tuberculosis and if they know that tuberculosis can be treated by antibiotic drug regimens, they will act accordingly and attend a health facility. That this is overtly over-simplistic becomes clear if one considers that there are many other factors which influence health-seeking behaviour.

Although knowledge about an illness may be high, illness recognition during an actual episode is much less clear. In the example of tuberculosis, the typical symptom of incessant coughing leaves open a variety of other, less serious illness interpretations. Also not considered are motivational factors and stigma which may influence health-seeking behaviour. Neglected are other factors like treatment expectations, satisfaction with healthcare services, decision-making for healthcare, and external barriers (for example financial constraints, accessibility

of health services). All this makes clear that knowledge is just one element in a broad array of factors which determine health-seeking behaviour (Nichter, 1993).

Having mentioned the limitations of KAP surveys, it must be acknowledged that there are important advantages. On the whole, KAP surveys are very useful for assessing distribution of community knowledge in large-scale projects, for example national surveys, and for evaluating changes in knowledge after education and media campaigns. They permit rapid assessments, yielding quantitative data, and are therefore a cheap way to gain quick insights into main knowledge data. Moreover, they are relatively easy to carry out, and with some basic training in interview techniques, any public health specialist can design a questionnaire and undertake a KAP survey. However, the superficial and very knowledge oriented data they provide can clearly make them useful only as a part of an overall research strategy for studying health-seeking behaviour (Lane, 1997).

One of the major unresolved questions in health-seeking behaviour studies is how far knowledge actually determines practice. It is most common to assume implicitly or explicitly that changing knowledge entails behaviour change. Hence the vast body of literature that concludes with recommendation of education about the causes, symptoms and treatments of illnesses as a key factor for success in behavioural change. It is however, also widely recognised that improving knowledge will not automatically lead to improved health behaviour. Obviously this is because apart from knowledge, there are a range of other factors relevant for health-seeking behaviour; unavailability of health facilities, lack of drugs, lack of money to pay for preventive or treatment costs, quality of service and so on.

There are two interesting points to consider in the relationship between knowledge and practice. Often, illness symptoms are diffused and ambiguous, and illness course or treatment outcomes are unexpected. Facing uncertainty, people follow a trial and error search for relief and meaning (Whyte, 1997; Ryan, 1998). Under these circumstances, even good biomedical knowledge would not affect behaviour. At the other extreme, a very clear symptomatology may automatically activate certain actions without reasoning about the nature of illness and its appropriate treatment.

Whyte (1997) has indicated that health and treatment-seeking behaviour models from social psychology, medical sociology and medical anthropology allow for considerable extension of the determinant factors for behaviour of KAP and focused ethnographic studies (FES). In public health, probably the most utilised models from social psychology are the Health Belief Model, the Theory of Reasoned Action and its later development to the Theory of Planned Behaviour. Most known from medical sociology and medical anthropology are respectively, the Healthcare Utilisation or Socio-Behavioural Model by Andersen and its diverse posterior variations, and the Decision Making Model. All the models contain associations of variables which are considered relevant for explaining or predicting health-seeking behaviours.

On the whole, health-seeking behaviour models as applied to public health mostly serve as catalogues of relevant variables that need to be considered in research design, rather than as behavioural models themselves. The mainly statistical data obtained using these models permit the evaluation of the relative weight of different factors in health behaviour (use of preventive or therapeutic

measures, choice between different health resources, non-compliance with treatment, or the consequences of behaviour for delayed care seeking). The principal objective is to identify problematic areas in order to intervene with specific health system strategies. Very frequently, investigators adapt the models to the peculiarities of their research field or study area, or fuse various models, with the main aim to increase the repertoire of possible key factors rather than to achieve theoretical advancements.

The health belief model (HBM) is possibly the most known model in public health, and also the oldest one from social psychology, developed in the 1950s. According to Sheeran and Abraham (1995), action in the HBM is guided by: (1) Beliefs about the impact of illness and its consequences (threat perception) which depend on: Perceived susceptibility, or the beliefs about how vulnerable a person considers him-or herself in relation to a certain illness or health problem. Perceived severity of illness or health problems and its consequences; (2) Health motivation, or readiness to be concerned about health matters. (3) Beliefs about the consequences of health practices and about the possibilities and the effort to put them into practice. The behavioural evaluation depends on: Perceived benefits of preventive or therapeutic health practices; Perceived barriers (both material and psychological for example will-power) with regard to a certain health practice. (4) Cues to action which includes different internal and external factors that influence action for example, the nature and intensity (organic and symbolic) of illness symptoms, mass media campaigns, advice from relevant others (family, friends, health staff, etc.). (5) Beliefs and health motivation are conditioned by socio-

demographic variables (class, age, gender, religion etc.) and by the psychological characteristics of the interviewed person (personality, peer group pressure etc).

The socio-demographic variables, like in all other models, target groups to be established to which interventions can be directed. These interventions are mainly health promotion and centre around beliefs about disease threat and behavioural evaluation. These are the factors which are considered to be transformable through health education, in contrast to structural or cultural factors like poverty, religious norms and so on. While there is evidence that perceived susceptibility, severity, benefits and barriers of the HBM are relevant factors in health behaviour, Sheeran & Abraham (1995) have indicated that the HBM neglects further determinants which are present in other models, like previous experiences, advantages of mal-adaptive behaviour, behavioural intention, and perceived control. Through the HBM interesting and highly relevant findings for health promotion can be determined. For example, for a disease like tuberculosis or AIDS which is associated with a specific group (the poor, homosexuals), persons who do not include themselves into these groups will hardly consider themselves vulnerable to the disease. This had particular implications for health messages about AIDS, which in later campaigns needed to be explicitly targeted to heterosexuals in order to create risk awareness. Studies which found that in endemic areas malaria was not considered a severe disease (Mwenesi, 1993), or that mosquito-nets were not felt effective against malaria because mosquitoes bite day and night, are other examples which show the implications of perceived threat for health behaviour. The same applies to diarrhoea which was locally understood as a way of cleansing the body, and vomiting, perceived to be a sign of relief,

rather than of aggravation of disease (Hausmann-Muela et al., 2002; Nyamongo, 2000).

The Theory of Planned Behaviour (TPB) is an extension of the earlier Theory of Reasoned Action (TRA). Both have been developed and amply used in HIV/AIDS research. They centre on factors which lead to a specific intention to act, or Behavioural Intention, which the TPB situates between the attitudes and behaviour. The centrality of Behavioural Intention questions the classical model of Belief, Attitude, Behaviour (Conner & Sparks, 1995). In the TPB, behavioural intention is determined by:

(1) Attitudes towards behaviour, determined by the belief that a specific behaviour will have a concrete consequence and the evaluation or valorisation of this consequence.

(2) Subjective norms, or the belief in whether other relevant persons will approve one's behaviour, plus the personal motivation to fulfill with the expectations of others.

(3) Perceived behavioural control, determined by the belief about access to the resources needed in order to act successfully, plus the perceived success of these resources (information, abilities, skills, dependence or independence from others, barriers, opportunities).

(4) Socio-demographic variables and personality traits which condition attitudes, subjective norms, and perceived behavioural control. These are the same as in the HBM.

An outstanding aspect of the TPB is the central role of social network support. Health promotion among sex workers, with the collaboration of

committed sex workers who were trained to distribute information and to offer support to their colleagues, provided positive results in a South African mining community (Campbell & Mzaidume, 2001). Similarly, the support of friends and partners has been central for South African adolescents to attend sexually transmitted infections (STIs) clinics (Meyer-Weitz et al., 2000). Another key factor emphasised in the TPB is the encouragement of feelings of self-control. In order to promote HIV/AIDS preventive measures, Meyer-Weitz et al. (2000) used a TPB approach in order to stimulate feelings of control and self-efficacy in negotiating with partners or clients to use condoms. The advantages of the TPB are clearly the taking into account of motivational aspects of personal disease control and the influence of social networks and peer pressure. The examples above show how projects can take advantage of these factors, rather than limiting themselves to the transmission of knowledge messages. Unfortunately, the TPB approach has scarcely been used outside STIs/AIDS research. The limitations are a potential overemphasis on these psychological factors, while under-valuing structural factors like limited access or availability of resources.

The healthcare utilisation model is also another model which is explicitly used to explain utilisation of healthcare facilities. The socio-behavioural or Andersen model groups in a logic sequence form three clusters or categories of factors (predisposing, enabling and need factors) which can influence health behaviour (Andersen & Newman, 1973). The model was specifically developed to investigate the use of biomedical health services. Later version by Weller, Ruebush and Klein (1997) has extended the model to include other healthcare sectors that is traditional medicine and domestic treatments. An adaptation of the

model has been proposed for studying health-seeking behaviour in so many diseases including malaria (Rauyajin, 1991).

Examples of the factors organised in the categories of the Healthcare Utilisation Model (mainly following Weller et al., 1997) are; predisposing factors: age, gender, religion, global health assessment, prior experiences with illness, formal education, general attitudes towards health services, and knowledge about the illness. Enabling factors comprise availability of services, financial resources to purchase services, health insurance, social network support and others; need factors are made up of perception of severity, total number of sick days for a reported illness, total number of days in bed, days missed from work or school, help from outside for caring and so on; treatment actions constitute home remedies (herbal, pharmaceuticals), pharmacy, over the counter drugs from shops, injections, traditional healers, private medical facilities, and public health services.

The model centres specifically on treatment selection. It includes both material and structural factors which are barely taken into account in the social psychology models. Weller et al. (1997) emphasised its particular use for working with statistical data on actual cases.

The model has also been used for gaining evidence on the weight of different factors for health service use. Andersen's model has been modified in the International Collaborative Studies on Healthcare (Kroeger, 1983). For example, using the categories proposed by Andersen, Fosu (2006) conducted a comparative study based on the data of demographic and health surveys. In the said study it was revealed that in addition to the predisposing factors and enabling factors,

there are versions which include Health Service System factors, referring to the structure of the healthcare system and its link to a country's social and political macro-system.

This is a valuable extension as it puts emphasis on the link of health-seeking behaviour with structural levels within a macro-political and economic context. However, the model omits the need factors which are central for understanding health-seeking behaviour (Weller et al., 1997).

A further variant of Andersen's model was elaborated by Kroeger (1983). Based on extensive and well-elaborated literature revision, he proposed the following framework of interrelated explanatory variables all of which are affected by perceived morbidity.

(1) An individual's traits or predisposing factors such as age, sex, marital status, status in the household, household size, ethnic group, degree of cultural adaptation, formal education, occupation, assets (land, livestock, cash, income), and social network interactions.

(2) Characteristics of the disorder and their perception including chronic or acute, severe or trivial, aetiological model, expected benefits or treatment (modern versus traditional), psychosomatic versus somatic disorders.

(3) Characteristics of the service (health service system factors and enabling factors): accessibility, appeal (opinions and attitudes towards traditional and modern healers), acceptability, quality, communication, and costs. The interaction of these factors guides the election of healthcare resources (dependent variables).

The advantage of socio-behavioural models is the variety of the factors which are organised in categories, making interventions on therapeutic actions (or lack

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of actions) feasible. They permit the establishment of correlations with good predictability, but not specification of how and why the different factors affect therapeutic selection (Weller et al., 1997).

Weller et al. (1997) indicated that it has become popular among researchers to use different categories which group key factors for health-seeking behaviour. According to Weller et al., the best known factors for health-seeking behaviour are the grouping into the "four As"; Availability, Accessibility, Affordability, and Acceptability.

Availability refers to the geographic distribution of health facilities, pharmaceutical products and so on. Accessibility includes adequate means of transport, roads and rails. Affordability includes treatment costs for the individual, household or family. A distinction is made between direct, indirect, and opportunity costs. Acceptability relates to cultural and social distance. This mainly refers to the characteristics of the health providers or health workers' behaviour, gender aspects (non acceptance of being treated by the opposite sex, in particular women who refuse to be seen by male nurses or doctors), excessive bureaucracy and so on. The model of the "four As" has been widely used by medical geographers, anthropologists and epidemiologists who mainly emphasised distance (both social and geographical) and economic aspects as key factors for access to treatment (Good, 1987). The advantage of the "four As" is the easy identification of key potential barriers for adequate treatment.

Starting with recognition of symptoms, Pathway models centre on the path that people follow until they use different health services (home treatment, traditional healer, biomedical facility). According to Good (1987), pathway model

stresses on the importance of "significant others" and the decision-making process. Significant others are part of the therapy managing group, a concept elaborated by Janzen (1978) which is key for understanding decision making in therapeutic processes. This idea challenges the strong emphasis on the individual and stresses the pivotal role of extended groups of relatives and friends in illness negotiation and management. In the course of the illness episode, the involvement of support groups in illness management can successively change. Pathway models acknowledge these dynamics of illness and decision-making.

According to Foster (1987), a number of factors affect health seeking behaviour which includes cultural and socio-demographic factors, economic factors and physical accessibility. A variety of factors have been identified as the leading causes of poor utilisation of primary healthcare services including poor socio-economic status, lack of physical accessibility, cultural beliefs and perceptions, low literacy level of the patients and large family size. Review of other 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 (Foster, 1987).

Cultural beliefs and practices often lead to self-care, home remedies and consultation with traditional healers in rural communities. Advice of the elderly 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. However, cultural practices and beliefs have been prevalent regardless of age, socio-economic status of the family and level of education. They also affect awareness and recognition of severity of illness, gender, and availability and acceptability of service (Foster, 1987).

The economic polarisation within the society and lack of social security system make the poor more vulnerable in terms of affordability and choice of health provider. Poverty not only excludes people from the benefits of healthcare system, but also restricts them from participating in decisions that affect their health, resulting in greater health inequalities.

Possession of household items, cattle, agricultural land, and type of residence signify not only the socio-economic status, but also give a picture of livelihood of a family. In most of the developing countries of South Asia region, it has been observed that magnitude of household out of pocket expenditure on health is at times as high as 80% of the total amount spent on healthcare per annum. Cost has undoubtedly been a major barrier in seeking appropriate healthcare. Not only the consultation fee or the expenditure incurred on medicines count, but also the fare spent to reach the facility and hence the total amount spent for treatment turns out to be cumbersome. Consequently, household economics limit the choice and opportunity of health seeking (Foster, 1987).

Access to a primary healthcare facility is projected as a basic social right in most communities South Asia region. In these communities having easy access to the services provided usually influence people to report diseases to health facilities regularly. Dissatisfaction with primary care services in either sector

leads many people to jump to higher level hospitals for primary care leading to considerable inefficiency and loss of control over efficacy and quality of services. In developing countries including Ghana, the effect of distance on service use becomes stronger when combined with the dearth of transportation and with poor roads which contributes towards increased cost of visits (Foster, 1987).

Availability of the transport, physical distance of the facility and time taken to reach the facility undoubtedly influence the health seeking behaviour and health services utilisation. The distance separating patients and clients from the nearest health facility has been remarked as an important barrier to use, particularly in rural areas. The long distances have been a disincentive to seek care especially in case of women who would need somebody to accompany them. As a result, the factor of distance gets strongly adhered to other factors such as availability of transport, total cost of one round trip and women's restricted mobility and with referral advice.

The literature above have indicated factors among other things that explained health seeking behaviour and factors that influence health seeking behaviour. For instance, Susanna (2003) indicated that understanding human behaviour is prerequisite to change behaviour and improved health practices. Factors such as poor socio-economic status, lack of physical accessibility, cultural beliefs and perceptions, low literacy level of the patients and large family size have been cited as influencing the utilisation of healthcare services.

**Health Seeking Behaviour of Students in Tertiary Institutions**

According to Tones (2004), university students have many concerns in addition to earning a degree, including relationship issues, health concerns, and

substance abuse problems, to name a few. Although there are many services offered to students for free or for a reduced fee, many students do not take advantage of them. According to MacKian (2003), an understanding of health seeking behaviour of students in a university community is important if a healthy community is to be established and maintained, because students make up a greater portion of the university community. MacKian (2003) further observed that there are barriers to seeking appropriate healthcare at the university hospitals for a number of reasons among which are accessibility and affordability.

Afolabi, Daropale, Irinoye and Adegoke (2006) have indicated that significant barriers to seeking medical attention at the healthcare facilities are cost of care, protracted waiting time, inadequate health information, unfriendly attitude of healthcare workers and drug shortage. Afolabi et al. (2006) have further observed that students consult their peers in health related academic disciplines rather than seek treatment at the university health hospitals. Some students prefer community pharmacies while others will take personal responsibilities for their health or abstain from medical care for religious reasons. Afolabi et al. concluded in their study on health seeking behaviour and student perception of healthcare services in a university in Nigeria that the health-seeking behaviour of students are influenced essentially by the nature of ailment, waiting time in the health facility and attitude of healthcare professionals. To minimise some of these negative influences, Afolabi et al. (2006) have suggested that initiatives must be created to improve student access to the university health centre to address the significant barriers of patient delays, the need for attitudinal change and continuing professional development of relevant workers in the health facility.

They further postulated that promotional activities may be necessary to inform and educate students on rational use of medicines and access to treatment at the health centre. Haddad and Fournier (1995) have explained that to encourage young people to access formal healthcare specific health services should be provided for them where they are assured of confidentiality and understanding.

## Utilisation of Healthcare Services

Research on the utilisation of healthcare services is of increasing value because of the high and still rising expenditure in health care. Such research is associated with the medical, social and behavioural sciences and also with health economics.

The use of health services has been explained by patients' personal factors (health or illness, symptoms, knowledge, beliefs, experiences, feelings of threat, needs, coping factors and so on), social factors (socio-demographic factors, family factors, social support) and factors related to the healthcare system (geographic distance, availability, accessibility, costs) (Purola, 1971; Purola, 1972).

The users of healthcare services perceive themselves as less healthy, fewer of them have attempted self-treatment and more of them report personal problems and stress than non-users (Andersen & Newman, 1975). Previous use of healthcare services is more strongly related to current use of healthcare services than are measures of previous health status (Eva, 1988).

Healthcare utilisation is therefore the use of healthcare services by people. The healthcare utilisation of a population is related to the availability, quality and cost of services as well as to social-economic structure, and personal

characteristics of the users (Chakraborty et al., 2003**;** Manzoor, 2009; Onah, 2009)**.** The under-utilisation of the health services in public sector has been almost a universal phenomenon in developing countries (Zwi, 2001). It is therefore, in recognition of this fact that various Nigerian governments have made numerous great efforts towards the provision of healthcare facilities to its population. Notable among these efforts were the expansion of medical education, improvement of public health care, and provision of primary healthcare (PHC) in many rural areas.

However, overt concern has not been given to the need for equity in the planning and distribution of healthcare facilities over the years in the country. Public and private healthcare facilities are sparsely provided in many regions within the country. Such regions with difficult terrain and physical environment are often neglected (Onokerhoraye, 1999). This makes the distance between the rural dwellers and the healthcare centre far apart, given the transportation problem experienced in these areas, and its attendant cost. Longer travel times and greater distances to health centres in rural areas constituted barriers to repeated visits.

Buor (2003) found that distance is the most important factor that influences the utilisation of health services in the Ahafo-Ano south district of Ghana. The effect of travel time on utilisation reflects that of distance and utilisation. The inadequacies in the access to health facilities have reduced the life expectancy of rural inhabitant and increased infant mortality (Ajala et al., 2005). Ajala et al. further asserted that rural people often waste a lot of time getting to the nearest available healthcare centre of which they have to trek long distance on many occasion because they are often faced with the problem of reliable means of

transportation. In Guatemala, Goldman and Heuveline (2000) found that 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.

Mugsha, Bocar, Dong, Chepng'eno, Sauerborn, (2004) identified household income, education, and expected competency of the provider as positive determinants of utilisation of healthcare services in rural Burkina Faso. Buor (2003) identified the determinants of utilisation of health services by women in rural and urban areas in Ghana using multiple regression posited that income and family size affect the rural areas in Ghana during utilisation while education and marital status affect those in urban areas. The influence of education on use of health service has also been examined. Generally education, income and health seem to have positive relationship with utilisation of modern healthcare facilities. In other words, people with higher educational attainment stand to benefit better income and invariably could afford payment for quality health care.

Babar, Hatcher and Lysten (2004) in a study on health seeking behaviour and health service utilisation in Pakistan asserted that there are factors determining that health behaviours may be seen in various contexts; physical, socio-economic, cultural and political. Babar et al. concluded that the utilisation of a healthcare system, public or private, formal or non-formal, may depend on socio-demographic factors, social structures, level of education, cultural beliefs and practices, gender discrimination, status of women, economic and political systems environmental conditions, and the disease pattern and healthcare system itself.

In a study in South-East Nigeria, Uzochukwu and Onwujekwe (2004) found that the private health facilities were the initial choice of healthcare for the majority with a decline among those choosing them as a second source of care and an increase in the utilisation of public health facilities as a second choice of care. Self diagnosis was practiced more by the poorer households while the least poor used the patent medicine dealers and community health workers less often for diagnosis of malaria. In a study of antenatal care utilisation in rural and urban areas in Haiti, Alexandre (2005) used logistic models to identify which factors explained the decision to seek prenatal care, and negative binomial models to determine how many prenatal visits were conducted by the subgroup of women who did make prenatal care visits. Alexandre found out that a substantial percentage of pregnant women have access to prenatal care services in Haiti, but mothers in rural areas who decided to seek care still fell slightly below the four visits recommended by the WHO.

The education levels of both mothers and their partners are a dominant predictor of prenatal care use. All these studies show that utilisation of healthcare facilities is influenced by physical, socio-economic, psychological as well as organisational factors. But accessibility is not considered for its sake. It is generally examined in relation to the pattern of distribution of the service supplying unit and the user population. The usual goal is to see whether the pattern of distribution is beneficial to the people or not. In other words, the distribution meets the criteria of either efficiency or equity. Accessibility to healthcare facilities has been studied and discovered to be a very crucial determinant in the location and utilisation of health facilities, given the nature of

its consumption. In a study on distributive effects of location of government hospitals in Ibadan, Okafor (1991), using the index of access opportunity (AO) mode, revealed that the areas which are mostly accessible lie to the north and largely outside of the inner part of the city. These areas included some high, middle and lower income class districts. Using multiple regression models, Okafor found out that the pattern of distribution of government hospital was in fact, not regressive.

Ajala et al. (2005) using the same index of accessibility model in a study titled accessibility to healthcare facilities; a panacea for sustainable rural development in Osun state revealed that the available health facilities are grossly inadequate and their distribution depicts serious inequality. The authors therefore suggested that there is an urgent need for serious intervention on the part of government in the provision of health facilities in the state focus at equitable distribution and accessibility to enhance sustainable rural development.

There are three main health providers in Nigeria. These are government or public health service provider, private healthcare provider and non-governmental healthcare providers which are coordinated by the ministry of health. The underutilisation of these health facilities in rural areas which are occasioned by inaccessibility has led to deaths from illness which ordinarily could be treated and prolonged. Ajala et al. (2005) asserted that the resultant effect of inadequate access to healthcare delivery on sustainable development can be exemplified by the number of hours loss annually to malaria alone, which culminate into lower productivity by workers.

In a review of healthcare utilisation studies, McKinlay (1972) concluded that factors relating to family life, perception of needs, knowledge of existence of health services, childhood habits and relationships with service personnel are important determinants of utilisation behaviour. The utilisation of healthcare services is also related to age, gender, education, religion, ethnicity, socioeconomic status, social support and so on (Kouzis & Eaton, 1998; McKinlay, 1972; Mechanic, 1976). The rate of utilisation is generally lower among males than females and increases with age (McKinlay, 1972; Mechanic, 1976).

Medical needs explain the use of health services among both older and younger patients (Evashwick et al., 1984, Hibbard & Pope, 1986). Mental health status is a powerful predictor of patient-initiated utilisation of health services among the elderly (Hibbard & Pope, 1986). Differences in social welfare and social security systems affect the attendance rates greatly (Andrews, Simmons, Long & Wilson, 2002). Level of knowledge of the operations of available services significantly affects utilisation (McKinlay, 1972).

**Cost of Health Service and Utilisation**

Many developing countries, particularly in Africa, have recently introduced payment schemes based on the selling of essential drugs and national health insurance schemes to enhance accessibility and utilisation. This is one of the main elements of the Bamako Initiative according to which income generated would ensure a reliable supply of drugs and would improve other aspects of the quality of the services offered. Thus, quality improvements would compensate for the

financial barrier and as a result the utilisation of public health services would be increased or at least maintained (Haddad & Fournier, 2000).

Kruk, Galea, Prescott and Freedman (2007) have indicated that greater government participation in health financing and higher levels of health spending are associated with increased utilisation of health services. While government financing is associated with better access to some essential health services, greater absolute levels of health spending will be required if developing countries are to achieve the Millennium Development Goal on quality healthcare, especially decrease in maternal mortality.

Countries where governments participate heavily in healthcare financing, essential services such as specialist treatments encourage more people to use them. Government financing for health is more important in some of the poorest countries in sub-Saharan Africa where several decades of market-based reforms left health systems with minimal infrastructure and inadequate numbers of health workers (Logie & Woodroffe, 1993).

According to McIntyre, Garshong, Mtei, Meheus et al. (2008), there is growing international consensus that out-of-pocket payments are contrary to the goal of universal coverage, particularly given the ineffectiveness of fee waivers in providing financial protection to the poor. There is also consensus that universal coverage can only be achieved through pre-payment funding mechanisms. However, it is of concern that financing strategies (such as private voluntary health insurance) that inevitably further fragment health systems are still being promoted as useful financing mechanisms for low- and middle-income countries.

The analysis presented by McIntyre et al. (2008) indicates that South Africa has made the least progress in addressing fragmentation, while Ghana appears to be pursuing a universal coverage policy in a more coherent way. To achieve universal coverage, the size of risk pools must be maximised. Further, resource allocation mechanisms must be put in place, whether these are to equalise risks between individual insurance schemes or to equitably allocate general tax (and donor) funds. Ultimately, there is a need to achieve as much integration of financing mechanisms as possible to promote universal coverage with strong income and risk cross-subsidies in the overall health system.

Sack (1980) conducted a study to analyse the effect of utilisation on total healthcare costs in a suburban intercommunity hospital affiliated with the School of Medicine of the University of Southern California. The results of this study showed that prevention of increasing healthcare costs will enhance the utilisation of health care.

It can be observed from the above literature that governmental support in healthcare financing increases the quality and utilisation of healthcare facilities. Financial barrier has been cited as among factors that influence the utilisation of healthcare facilities, but Haddad and Fournier (2000) have explained that quality improvement in healthcare facilities will compensate for the financial barrier. As a result the utilisation of public health services would be increased or at least maintained.

**Access and Utilisation**

According to Cargile (1995), access means that healthcare services are unrestricted by geographic, economic, social, cultural, organisational, or linguistic

barriers. Geographic access may be measured by modes of transportation, distance, travel time, and any other physical barriers that could keep the client from receiving care. Economic access refers to the affordability of products and services for clients. Social or cultural access relates to service acceptability within the context of the client's cultural values, beliefs, and attitudes. For example, family planning services may not be accepted if they are offered in a way that is inconsistent with the local culture.

Organisational access refers to the extent to which services are conveniently organised for prospective clients, and encompasses issues such as clinic hours and appointment systems, waiting time, and the mode of service delivery. For example, the lack of evening clinics may reduce organisational access for day labourers. Where travel is difficult, lack of home visits or village-based services may create an access problem.

Linguistic access means that the services are available in the local language or a dialect in which the client is fluent. According to Institute of Medicine (1993), certain barriers can make gaining access to the personal healthcare system difficult. Lack of transportation, inadequate health insurance, and language difficulties are a few of the many hurdles that may stand between someone who is sick and needs health care. More broadly, barriers can create inequitable circumstances for the poor and certain minority populations. The poor and minorities not only have more difficulty getting services, but they also are in general less healthy. This may be due not only to the amount of care they receive, but also the content, quality, and continuity of what care they do receive.

Access to services is not an end in and of itself. The purpose of gaining access to the personal healthcare system is to achieve one or more of an array of possible health outcomes; not only avoidance of untimely death and relief of acute symptoms, but also maintenance of long-term functioning and relief from anxiety about the meaning of symptoms. This said however, it should be emphasised that the relationship between desired benefits of positive health outcomes and healthcare services is not clear-cut. According to Illsley and Svensson (1990), even countries that have reduced many of the barriers faced by those in the United States by establishing universal healthcare still experience differences in access to healthcare according to social class. Moreover, other mechanisms in addition to medical care such as environmental control, education, and occupational safety, contribute to the health of populations.

Despite the difficulties of sorting out the effects of healthcare services from those of other factors, society has a stake in monitoring how equitably its investment in health services is working by being able to identify who has access to problems and why. Access is a shorthand term used for a broad set of concerns that centre on the degree to which individuals and groups are able to obtain needed services from the medical care system. Often because of difficulties in defining and measuring the term, people equate access with insurance coverage and having enough doctors and hospitals in the areas in which they live. But having insurance or nearby healthcare providers is no guarantee that people who need services will get them (Lindelow, 2002). Conversely, many who lack coverage or live in areas that appear to have shortages of healthcare facilities do receive services (Institute of Medicine [IOM], 1993). Equitable access to

healthcare requires that all citizens be able to secure an adequate level of care without excessive burdens however, transforming this moral obligation into reality is difficult because it involves deciding what constitutes an adequate level of care, what should be considered an excessive burden, and how to know whether these standards have been reached or even exceeded (IOM, 1993).

Institute of Medicine (1993) hinted that health outcomes are as integral to the concept of access as is the use of services. Certain questions assumed central importance in discussing access to healthcare facilities. For example, who is not receiving preventive services or medical treatment that would make a difference for health status? Who is not receiving care that eases pain, improves functioning, or alleviates anxiety? With equity of access to health services, the answers to these questions should not be affected by race, ethnic origin, income, geographical location, or insurance status. Based on these considerations, the institute defined access as follows: the timely use of personal health services to achieve the best possible health outcomes. Importantly, this definition relies on both the use of health services and on health outcomes to provide yardsticks for judging whether access has been achieved. The test of equity of access involves determining whether there are systematic differences in use and outcome among groups in society and whether these differences are the result of financial or other barriers to care.

A standard of "the best possible health outcome" is admittedly an ideal goal. Particularly in a society that limits the resources devoted to health care, all that medical science can offer is an optimistic target, unattainable for every patient. Social critics commenting on the healthcare scene have reminded us from time to

time that even if we could afford it, more medical services are not necessarily a good thing, nor are more services frequently the best road to good health for a society faced with tradeoffs about the best social investments it could make (Evans & Stoddart, 1990; Illich, 1975).

In applying its definition of access the committee sought to occupy a practical middle ground between all care that people might want or believe they needed and the view that medical care can make an important difference in people's lives. The definition forces us to identify those areas of medical care in which services influence health status and then to ask whether the relatively poorer outcomes of some population groups can be explained by problems related to access (Lindelow, 2002). The definition also emphasizes the need to move beyond standard approaches that rely mainly on enumerating the presence of healthcare providers, the number of uninsured, or encounters with healthcare providers to detect access problems.

For a health outcome to be a useful indicator of access problems, one must be able to take into account many factors other than medical care that may contribute to differences in outcome among groups, including those factors that may not be easily overcome by medical care. This problem can be addressed by focusing on health outcomes for which the connection between services and desired benefits is as unambiguous as possible. For example, it is known that pap smears allow early diagnosis of cervical cancer, which leads to better chances of survival. Thus, the incidence of invasive cervical cancer, an outcome measure, may be a good indicator of access to primary care services. In contrast, mortality from pancreatic cancer would not make a good access indicator because there is no reliable

screening test for the disease nor is there a good prognosis for survival even with early detection.

Employing the utilisation of healthcare services as an indicator of healthcare access also has limitations. Some people are prone to overuse medical care, whereas others may underuse it for reasons that have little to do with access barriers. Others use more services because they need more. For example, the poor may use a greater amount of care because they are more likely to have health problems than those with higher-income levels. To interpret utilisation indicators unambiguously, efforts must be made to account for need and appropriateness of services.

**Measuring Access**

**Indicators.** To the extent that they reflect objective conditions and social values, indicators can mobilise socio-political pressures to raise the overall health levels of the population. They can also provide insight into how well medical knowledge is being applied in a given society to a given population. They offer as well a way of tracking how well a society is discharging its responsibilities for the organisation and delivery of healthcare (Elinson, 1974).

The systematic and periodic reporting of statistics to describe social change and inform policy choices is not new, although it came into its own as the "social indicator movement" in the 1960s (DeNeufville, 1975; Land & Spilerman, 1972). Although some might argue that the widespread enthusiasm of the 1960s for social indicators has waned, the notion of indicators to measure progress in the health arena has continued to be strong as demonstrated by the U.S. Year 2000

health objectives and the WHO Year 2000 activities (U.S. Public Health Service, 2001).

Rush (2006) has contended that depending on the nature of the illness of a client, geographical access is always an issue to consider when decisions are being made on utilisation of a particular healthcare facility. In support to this, Cameron (2005) has also stipulated that distance from ones abode to a healthcare centre will always be considered before choosing a hospital or health facility for treatment. He further posited that cost of healthcare is also a barrier to utilisation of healthcare facilities. In contrast to these, Mubarak (2007) has indicated that geographic factors such as (distance and weather) and cost may not have influence on ones decision to utilise a particular healthcare service if he or she can be assured of quality. Supporting this, Ameyaw (2003) has postulated that some Ghanaian populace particularly the rich will defy distance and cost for healthcare services.

In summary, it can be observed from the above literature that distance from a healthcare facility to patients' place of abode, availability of healthcare services and cost of healthcare delivery constitute factors to determined in considering access to healthcare services. Though, these will determine ones usage or otherwise of a healthcare facility, it may not be the case in certain group(s) of people.

According to Ameyaw (2003), before one can utilise any healthcare service, it must be available thus (the quality of being at hand when needed). He further explained that the mere availability of a healthcare facility is not enough, the

important thing is to put it to good use. There are times where a healthcare facility or service may be physically present but patrons may be denied access.

## Quality of Healthcare Services and Utilisation

Though some philosophers have asserted that the term quality is a construct that cannot be defined because of its variability, Morwood (1995) has defined the term from a philosophical perspective. In the said definition, Morwood indicated that quality is an attribute or a property. According to him, attributes are ascribable by a subject, whereas properties are possible. In spite of the efforts by Morwood and other philosophers to define the term, Cargile (1995) contends that in contemporary philosophy the idea of quality and especially how to distinguish certain kinds of qualities from one another remains controversial.

In healthcare delivery, Brown, Franco Rafeh and Hatzell (1993) have stipulated that quality of healthcare must be defined in the light of the provider's technical standards and patients' expectations. It has severally been indicated by many writers that everyone deserves quality healthcare delivery because healthcare delivered at the patient's expectation assumes quality (Kant, 2006). Kant further indicated that quality of healthcare is perceived by the user of the healthcare facility, but to help patients identify whether they are getting quality of service, Nelson (2007) has also indicated that patients should find out if their healthcare;

1.  fits their needs and preferences and does not cause harm.

2.  their healthcare is right for their illness and is given without unnecessary delays.

3.  includes only the medical tests and procedures that they need.

4. is fair and not affected by such things as their gender, language, colour, age or income.

According to Bannerman, Offei, Acquah and Tweneboa (2009), poor quality of healthcare results in loss of customers, lives, revenue, material resources, time, morale, staff, recognition, trust and respect and in individuals and communities' apathy towards health services, all of which contribute to lowered effectiveness and efficiency.

The ultimate indicator of service quality, according to Frøystad, Mæstad and Villamil (2011), is that people's health conditions are improved. However, in practice it is extremely difficult to measure how health services influence health outcomes. According to Frøystad et al., the usual approach for assessing quality is to focus on factors that are preconditions for high quality health services. Their indicators of quality included the availability of key inputs (trained staff, equipment, drugs) as well as the quality of health workers' performance.

**Availability of Key Inputs (staff, equipment and drugs)**

Frøystad et al. (2011) pointed out that the distribution of qualified health personnel across various communities in Africa is rather unequal. Most health facilities in most African communities have neither a general practitioner nor a specialised nurse. A nurse with basic or medium training is the most common cadre in some rural African communities. In a study at Luanda and Uige, Frøystad et al. reported that all health facilities visited in Luanda had a laboratory technician and 80% had a pharmacist. In Uíge, only 35% had a laboratory technician and 30% had a pharmacist. Every health facility needs a stethoscope and a thermometer to assist in diagnosis of illnesses. All facilities in Luanda had

this basic equipment, while as much as 30% of the facilities in Uíge did not have a single stethoscope and 15% did not have a thermometer. Drugs and vaccines seemed to be lacking both in Luanda and Uíge, but again, the situation was considerably worse in Uíge. Antibiotics were found in stock in 75% of the facilities in Luanda, but only in half of the facilities in Uíge. Similarly, 20% of the facilities in Luanda were out of stock of anti-malarias, whereas the stock out rate in Uíge was 35%. Stock outs were high also for essential childhood vaccines (that is Bacillus Calmette-Guérin, measles, polio, diphtheria, pertussis and tetanus vaccines). Fifty-five percent of the facilities in Uíge did not have all these vaccines in stock, whereas the stock out rate was 25% in Luanda.

**Health Worker Performance**

Frøystad et al. (2011) further postulated that a crucial factor for the provision of quality health services is that clinicians are able to systematically reach a correct diagnosis, prescribe correct treatment and educate patients about how to prevent future illness. In order to be able to do this, the clinician needs to do a careful examination of the patient, asking relevant history questions and performing relevant physical examinations and tests. In the said study, Frøystad et al. interviewed health workers to assess the thoroughness of their diagnostic process and their ability to reach a correct diagnosis for a set of common illnesses.

Health workers were presented with five hypothetical patients with clear symptoms of different diseases. They were asked to take the history and do the examinations that would enable them to reach a correct diagnosis. The five diseases were malaria with anaemia, diarrhoea with dehydration, pneumonia, pelvic inflammatory disease and tuberculosis. For each patient, there was a list of

relevant questions and examinations that could be conducted. They observed how many of these items that were performed was an indicator of the thoroughness of the diagnostic process. They also observed whether the health worker in the end reached the correct diagnosis or not. They subsequently reported the following striking observation among the two communities; health workers in Luanda appear to do much more careful diagnosis than their colleagues in Uíge. Whereas health workers in Luanda ask 73% of the relevant questions and conduct 62% of the relevant physical examinations, the figures in Uíge are down at 42% and 27% respectively.

The low share of physical examinations performed is particularly a reason for concern, as these examinations are crucial in order to detect severe diseases such as severe dehydration, anaemia, severe pneumonia and so on. These conditions are important contributors to child mortality. The less careful diagnostic process followed by health workers in Uíge seems to have consequences for their ability to reach the correct diagnosis. On average, correct diagnosis was reached in 37% of the cases in Uíge, while in Luanda, correct diagnosis was reached in 53% of the cases. Patients in Luanda were more likely to have their illness correctly diagnosed and were therefore probably also more likely to get an appropriate treatment.

Quality of healthcare in Ghanaian health facilities has been a major concern for all stakeholders over the years. To address these, Turkson (2009) reported that there were efforts from 1993-1996 and 1998–1999 in the Upper West Region and some facilities in Eastern and Volta Regions to improve the standard of quality

healthcare delivery by instituting quality control measures such as patients' appraisal of the services rendered and complaint system.

The Ministry of Health again identified improving the quality of healthcare delivery and set five key objectives towards it. It reckoned that quality of care might be improved through paying more attention to the perspectives of clients, improving the competencies and skills of providers and improving working environment by better management, provision of medical equipment and supplies and motivation of staff. Mensah (2003) has indicated that expression of patients' satisfaction of the services provided at the hospital leads to early recovery and future use of the health facility. He further stipulated that to improve quality of healthcare delivery, there is the need for healthcare institutions to establish quality control units at the healthcare facility to check poor quality of health care.

In spite of these interventions there are still growing desire from the clients at the various health facilities for quality of service delivery. This is so because Ross, Steward and Sinacore (1995) and Reerink and Sauerborn (1996) have postulated that the patient's perception of quality care is critical to understanding the relationship between quality of care and utilisation of health services which is considered an outcome of healthcare delivery.

Available literature (Aldana, Piechulek & Al-sabir, 2001; Balthussen, Ye, Haddad & Sauerborn, 2002; Bernhart, Wiadnyana, Wihardjo & Pohan, 1999) has identified three powerful indicators for client satisfaction with service provision. These three indicators are efficiency/effectiveness of service provision, waiting time at the health facility before service is rendered and attitude or behaviour of service providers, especially showing respect and politeness for patients.

**Efficiency/effectiveness.** The quality of health services depends on the effectiveness of service delivery norms and clinical guidelines. According to Kant (2006), assessing the dimension of effectiveness answers the questions, "Does a correctly applied procedure or treatment lead to the desired results?" and "Is the recommended treatment the most technologically appropriate for the setting in which it is delivered?" Kant further postulated that effectiveness is an important dimension of quality at the central level, where norms and specifications are defined.

Effectiveness issues should also be considered at the local level where managers decide how to carry out norms and how to adapt them to local conditions. When selecting standards, relative risks should be considered. For example, more frequent use of caesarean section might be warranted in a population with many high-risk pregnancies, despite the associated risks. To determine this strategy's effectiveness, the procedures' potential harm must be compared with its potential net benefits (Kant, 2006).

According to Manzoor (2009), the efficiency of health services is an important dimension of quality because it affects product and service affordability and because healthcare resources are usually limited. Efficient services provide optimal rather than maximum care to the patient and community; they provide the greatest benefit within the resources available. Efficiency demands that necessary or appropriate care is provided. Poor care resulting from ineffective norms or incorrect delivery should be minimised or eliminated because it affects utilisation (Manzoor, 2009). In this way, quality can be improved while reducing costs and maximising utilisation.

Harmful care besides causing unnecessary risk and patient discomfort is often expensive and time-consuming to correct. It would be misleading however, to imply that quality improvements never require additional resources. But by analysing efficiency, health programme managers may select the most cost-effective intervention (Morwood, 1995).

**Safety**. Morwood (1995) explained that as a dimension of quality, safety means minimising the risks of injury, infection, harmful side effects, or other dangers related to service delivery. Safety involves the provider as well as the patient. For example, Morwood indicated that safety is an important dimension of quality for blood transfusions, especially since the advent of AIDS. Patients must be protected from infection, and health workers who handle blood and needles must be protected by safety procedures.

Manzoor (2009) gave additional safety issues related to blood transfusions to include maintaining aseptic conditions and using proper techniques for transfusing blood. Furthermore, Morwood (1995) explained that while safety may seem most important when complex clinical services are provided, there are safety concerns in the provision of basic health services as well. For example, health centre waiting rooms can put clients at risk of infection from other patients if risk-reducing measures are not taken.

If a health worker does not provide proper instruction on the preparation of oral rehydration solution (ORS), a mother may administer to her child ORS containing a dangerously high concentration of salt. Patients who are poorly treated may be less likely to heed the healthcare provider's recommendations or may avoid seeking care.

**The Client.** For the clients and communities served by healthcare facilities, quality care meets their perceived needs, and is delivered courteously and on time. In sum, the client wants services that effectively relieve symptoms and prevent illness. The client's perspective is very important because satisfied clients often are more likely to comply with treatment and to continue to use primary health services. Thus, the dimensions of quality that relate to client satisfaction affect the health and well-being of the community (Morwood, 1995).

Patients and communities often focus on effectiveness, accessibility, interpersonal relations, continuity, and amenities as the most important dimensions of quality. However, it is important to note that communities do not always fully understand their health service needs especially for preventive services and cannot adequately assess technical competence (Mubarak, 2007).

Health providers must learn about their community's health status and health service needs, educate the community about basic health services, and involve it in defining how care is to be most effectively delivered. Which decisions should be made by health professionals and which should be made by the community? Where does the technical domain begin and end? This is a subjective and value-laden area that requires an ongoing dialogue between health workers and the community. Answering these questions requires a relationship of trust and two way communication between the parties (Morwood, 1995).

**The Health Service Provider.** From the provider's perspective, quality care implies that he or she has the skills, resources, and conditions necessary to improve the health status of the patient and the community, according to current technical standards and available resources. The provider's commitment and

motivation depend on the ability to carry out his or her duties in an ideal or optimal way (Manzoor, 2009).

According to Manzoor (2009), providers tend to focus on technical competence, effectiveness, and safety. Key questions for providers may be: How many patients are providers expected to see per hour? What laboratory services are available to them, and how accurate, efficient, and reliable are they? What referral systems are in place when specialty services or higher technologies are needed? Are the physical working conditions adequate and sanitary, ensuring the privacy of patients and a professional environment? Does the pharmacy have a reliable supply of all the needed medicines? Are there opportunities for continuing medical education?

Just as the healthcare system must respond to the patients' perspectives and demands, it must also respond to the needs and requirements of the healthcare provider. In this sense, healthcare providers can be thought of as the healthcare system's internal clients. They need and expect effective and efficient technical, administrative, and support services in providing high-quality care (Nelson, 2007).

It can be gathered from the above literature that everyone deserves quality healthcare delivery because healthcare delivered at the patient's expectation assumes quality and satisfaction. To identify quality of healthcare delivery three powerful indicators for client satisfaction with service provision must be observed. These three indicators are efficiency/effectiveness of service provision, waiting time at the health facility before service is rendered and attitude or

behaviour of service providers especially showing respect and politeness for patients.

## Summary

Health is an important issue in every human institution. Thus, in most human societies attempts are made to ensure that individuals have unimpeded access to healthcare. If a nation does not have a very strong human resource base that is healthy, the size of its labour force will shrink.

In most European countries for instance, attempts to make healthcare accessible to all and sundry became very much pronounced in the post World War periods. This was because the aftermath of the wars introduced diseases such as flu, tuberculosis, and yellow fever in the world that threatened the very existence of most Europeans.

Ghana has experimented and struggled with schemes to better the health status of its citizens. For example, the first President of Republic of Ghana, Dr. Kwame Nkrumah introduced the National Health Service which was fully financed from state revenue. In 1971 the government of the day introduced user fees to patients for hospital procedures. In 2003, the sitting president, John Agyekum Kuffuor launched a National Health Insurance Scheme to offer affordable medical care, especially to the poor and vulnerable in Ghana. In 2004, the National Health Insurance Scheme was introduced to allow everybody make contributions into a fund so that in the event of illness contributors could be supported by the fund to receive affordable healthcare in health facilities. It was thus meant to reduce the cost of receiving healthcare in the country as a means of making health facilities readily available to every Ghanaian.

The quality of health services depends on the effectiveness of service delivery norms and clinical guidelines. Ghana Health Service annual report of 2007 indicated that about 35% of Ghanaian hospitals were equipped with the required facilities and services to serve the communities they operated in the treatment of various ailments common in the country. GHS stressed on the effective utilisation of the services and facilities provided in these hospitals in the country. These services, according to WHO (2009), include all medical services dealing with the diagnosis and treatment of disease, or the promotion, maintenance and restoration of health. Service provision refers to the way inputs such as money, staff, equipment and drugs are combined to allow the delivery of health interventions. Risse (1990) grouped hospitals where these services or interventions are given into general, specialised, and teaching hospitals and categorised their roles and functions appropriately.

Andersen's Behavioural model, Purola's model, Antonovsky's model, Health Belief model, Theory of Planned Behaviour and Biopsychosocial model were the theoretical bases which underpinned the study on the utilisation of healthcare services at U.C.C. hospital by the undergraduate students.

It was observed that utilisation of healthcare resources was dependent on the availability of the resource, availability of information of the resource, access (proximity and cost) to the resources, and the perceived quality of the resource. Susanna et al. (2003) indicated that KAP surveys were the most frequently used studies in health-seeking behaviour research. One major unresolved question that came out of studies in health-seeking behaviour was how far knowledge actually determines practice.

Availability, accessibility, affordability, and acceptability were found to affect health seeking behaviour. Also of essence were cultural, socio-demographic and economic factors. Other studies in a Nigerian university also indicated that health-seeking behaviour of students are influenced essentially by the nature of ailment, waiting time in the health facility and attitude of healthcare professionals. Also, poor socio-economic status, lack of physical accessibility, cultural beliefs and perceptions, low literacy level of the patients and large family size were other factors identified as the leading causes of poor utilisation of primary healthcare services. To minimise some of these negative influences, Afolabi et al. (2006) suggested initiatives were created to improve student access to the university health centre to address the significant barriers of patient delays. The need for attitudinal change and continuing professional development of relevant workers at health facilities was also stressed on.

Quality of healthcare in Ghanaian health facilities has been a major concern for all stakeholders over the years. Brown et al. (1993) have stipulated that quality of healthcare must be defined in the light of the provider's technical standards and patients' expectations. Poor quality of healthcare results in loss of customers, lives, revenue, material resources, time, morale, staff, recognition, trust and respect and in individuals and communities' apathy towards health services. All these contribute to lowered effectiveness and efficiency.

Available literature identified three powerful indicators for client satisfaction with service provision. These three indicators are efficiency or effectiveness of service provision, waiting time at the health facility before service is rendered and

attitude or behaviour of service providers, especially showing respect and politeness to patients.

# CHAPTER THREE

# METHODOLOGY

The purpose of the study was to find out which factors influence the utilisation of healthcare services provided at the University of Cape Coast hospital. This section of the study presents the methods used to carry out the study. Specifically, it covered;

1. Research Design

2. Population

3. Sample and Sampling Procedure

4. Instrument

5. Data collection procedure, and

6. Data analysis

## Research Design

A descriptive quantitative survey was used to examine the factors influencing the utilisation of University of Cape Coast hospital by the undergraduate students. Since this could not be measured directly, it involved eliciting responses from respondents to answer research questions. In descriptive survey data is collected from members of the population in order to determine the current status of that population with respect to the variable(s) under study (Gay, 1987). Descriptive research studies are aimed at determining the nature of a group or a situation as it exists at the time of the study. It was in this wise that Best and Kahn (1993)

postulated that descriptive statistical analysis limits generalisation to a particular group of individuals observed and that no conclusions are extended beyond this group. To Best and Kahn (1993), any similarity to those individuals outside the group to be studied cannot be assumed.

Oppenheim (1996) contends that "the purpose of descriptive survey is to count; when it cannot count everyone, it counts a representative sample and then makes inferences about the population as a whole" (p. 8). According to Oppenheim, descriptive surveys describe how many members of a population have certain characteristics or how often certain events occur. It limits generalisation to the particular group observed and that no conclusions are extended beyond this group.

Denscombe (2003) stated that the very notion of a survey suggests that the research has involved an active attempt by the researcher to go out and look and to search. He maintained that surveys are associated with getting information "straight from the horse's own mouth" and is purposeful and structured. Denscombe (2003) further postulated that surveys are easily associated with large scale research, covering many people or events. It enables the researcher collect enough data to determine the nature of the group to be studied as it exists at the time of the study. The breadth of coverage means that the findings from a good research scores well when it comes to generalization. If the coverage is suitably wide and inclusive, it gives creditability to generalised statements made on the basis of the research. The strategy equally lends itself to methods such as questionnaire, which can generate large volumes of quantitative data that can be subjected to statistical analysis. Surveys also save costs and time. Denscombe

(2003) however, pointed out that though surveys cover a wide span, the data that are produced are likely to lack detail or depth on the topic under investigation. Further, the emphasis on wide and inclusive coverage limits the degree to which the research can check on accuracy and honesty of responses.

In the view of Fraenkel and Wallen (2000), obtaining answers from large group of people to a set of carefully designed and administered questions lie on the heart of survey researchers. Fraenkel and Wallen outlined three key advantages associated with descriptive survey; it provides a meaningful picture of events and seeks to explain people's perceptions and behaviour on the basis of information obtained at a point in time; it can be used with greater confidence with regard to particular questions which are of special interest and value to the researcher; and follow-up questions can be asked and items that are not clear can be explained further.

Fraenkel and Wallen (2000) also mentioned a number of disadvantages including the difficulty of ensuring that questions to be reacted to during interviews, have exact wording. Another is that data could produce untrustworthy result because they may delve into private and emotional matters in which respondents might not be completely truthful. They also pointed out that retrieving a sufficient number of questionnaires administered for meaningful analysis to be made was a problem of the descriptive survey design.

In order to mitigate the effects of the weaknesses associated with the use of descriptive quantitative survey on the study, the questionnaire were pre-tested. This offered the researcher the opportunity to reframe and sharpen ambiguous items. Further, respondents were assured of their anonymity and the

confidentiality of responses to enable them to respond candidly and dispassionately.

## Population

Creswell (2002) and Koul (2000) have explained that population is a complete set of individuals (subjects or events) having common observable characteristics in which a researcher is interested. This implies that a population can be of any size and that it will have at least one (and sometimes several) identifiable characteristic(s) that set it off from any other population. Macmillan (1996) also considers population as "a group of elements or cases, whether individuals, objects, or events that conform to specific criteria and to which we intend to generalise the results of the research". This group is also referred to as the target population or the universe.

This study was conducted at the University of Cape Coast in the Central Region of Ghana. Therefore, all the 14,815 undergraduate regular students of the University of Cape Coast constituted the target population whereas the levels 200, 300, and 400 both resident and non-resident (11,698) constituted the accessible population. There is regional balance in the students' population that is, at least every region in the country has a student in the university (University of Cape Coast, 2010).

The university is located at the western side of Cape Coast, the Central Regional capital. It was established in 1962 by the first president of the Republic of Ghana; Dr. Kwame Nkrumah. It was initially established to train teachers to feed the second cycle institutions in the country. On October 1, 1971, the university attained the status of a full and independent university with the

authority to confer its own degrees, diplomas and certificates by an Act of Parliament; The University of Cape Coast Act 1971 (Act 390) and subsequently The University of Cape Coast Law, 1992 (PNDC Law 278) which made the university autonomous (University of Cape Coast, 2010).

It was established out of a dire need for highly qualified and skilled manpower that would train and develop the nation's human capital. Thus, it was established to train graduate teachers for second cycle institutions, teacher training colleges, and technical institutions a mission which the two universities existing at the time were ill-equipped to fulfill. The university was also given the mandate "to serve the needs of the whole country" and "to play a unique role in national development by identifying national needs and addressing them". From an initial intake of 155 students in 1962, the university currently has a total population of 35,922 (undergraduate student population is about 14,815 regular students, 2,146 sandwich (vacation) students and 18,018 distant learners).

The university has one fully operational hospital at the western side of the university which serves primarily the needs of its students both regular and sandwich (vacation) students, staff and their dependents below age 18. It also extends its services to the general public. It has a clinic specifically for the use of students at the eastern side of the university. In addition to these, it also has optometry department to see to the eye needs of the university community and the general public but the prime objective of the department is to train students in optometry (University of Cape Coast, 2010).

### Sample and Sampling Procedure

According to Sarantokos (1998), sampling refers to the process of selecting a portion of the population to represent the entire population. Generally, sampling enables the researcher to study a relatively small number of units in place of the target population to obtain a representative of the whole target population. For, some of the common reasons why researchers use sample surveys are that in many cases, a complete coverage of the population is not possible; sampling provides a better option since it addresses the survey population in a short period of time and produces comparable and equally valid results; samples are thought to offer more detailed information and a high degree of accuracy because they deal with relatively small number of units.

The sample size of the study was estimated at 300 respondents consisting of 124 level 200s, 96 level 300s, and 80 level 400s out of the accessible population of 11,698. These respondents were selected using the convenience sampling technique to select them from the traditional halls of residence of the university and the selected hostels around the university for the study.

Convenience sampling technique was chosen because, according to Sarantokos (1998), it is fast, inexpensive, easy and the subjects are readily available. This sampling technique is also useful in documenting that a particular quality of a substance or phenomenon occurs within a given sample. Such studies are also very useful for detecting relationships among different phenomena (Koul, 2000).

Even though the sampling technique was deemed appropriate for the study considering its advantages, it is also considered by Sarantokos (1998) as being

biased and therefore making the generalisation of its results quite difficult. Koul (2000) has indicated that the convenience sampling technique is not based on the probability theory therefore, no objective method for measuring the reliability of the sample results. This technique being unscientific always involves the liking and disliking of the enumerators.

On demographic data, questions were asked on gender, age and course of study at the university. The details are presented in Table 1.

**Table 1: Frequency Distribution of Gender**

| Gender | Frequency | Percentage |
|--------|-----------|------------|
| Males | 107 | 36.50 |
| Females | 186 | 63.50 |
| Total | 293 | 100.00 |

It can be observed from Table 1 that 107 out of the 293 respondents representing 36.5% were males whilst 186 respondents representing 63.5% were females. This clearly shows that there were more female participants than males in this survey and it may be as a result of the sampling technique used in selecting respondents.

**Age Distribution**

For analyses purposes, the age of respondents in years were categorised into the following age groups; 19 and below, 20-25, 26-30, 31-40 and above 40. The age distribution is represented in Table 2.

It can be observed from Table 2 that 28 representing 9.5% of the 293 respondents were below age 19 however, 101 respondents representing 34.5%

were between 20-25 years. Also, 96 respondents representing 32.8% were between 26-30 years. This signifies that a total 44% of the respondents were below 26 years. The average age of the students of the university was 23 years.

**Table 2: Frequency Distribution of Age**

| Age Category | Frequency | Percentage |
|---|---|---|
| ≤ 19 | 28 | 9.50 |
| 20-25 | 101 | 34.50 |
| 26-30 | 96 | 32.80 |
| 31-40 | 43 | 14.70 |
| ≥ 40 | 25 | 8.50 |
| Total | 293 | 100.00 |

**Residential Status Distribution**

The residential status of the respondents was varied with a large proportion reporting that they were resident students. This is captured in Table 3.

**Table 3: Frequency Distribution of Residential Status**

| Residential Status | Frequency | Percentage |
|---|---|---|
| Residential | 272 | 92.80 |
| Non-Residential | 21 | 7.20 |
| Total | 293 | 100.00 |

From Table 3, a majority of 272 out of 293 respondents representing 92.8% were resident students of the university whilst 21 out of the 293 respondents

representing 7.2% were non-resident students. This means most students prefer to stay or reside at the traditional halls of the university.

**Table 4: Frequency Distribution of Halls of Residence**

| Hall of Residence | Frequency | Percentage |
|---|---|---|
| Traditional Halls | | |
| Oguaa | 35 | 12.00 |
| Valco | 73 | 25.00 |
| Nkrumah | 50 | 17.00 |
| Casely Hayford | 38 | 13.00 |
| Atlantic | 41 | 14.00 |
| Adehye | 35 | 12.00 |
| Non Traditional Halls | | |
| Baduwa hostel | 6 | 2.00 |
| Dr. Aziz hostel | 9 | 3.00 |
| Oye-Inn hostel | 6 | 2.00 |
| Total | 293 | 100.00 |

It can be observed from Table 4 that out of the 93% of the resident students, 12% were from Oguaa hall, 25% from Valco hall, 17% from Nkrumah hall, 13% from Casely Hayford hall, 14% from Atlantic hall and 12% from the Adehye hall. However, out of the 7% non-residential students, 2% were at Baduwa hostel, 3% were at Dr. Aziz hostel and 2% were at Oye-Inn hostel. The levels of study of the respondents were requested for. The details are represented in Table 5.

**Table 5: Frequency Distribution of Level of Study**

| Level of Study | Frequency | Percentage |
| --- | --- | --- |
| 200 | 100 | 34.00 |
| 300 | 93 | 32.00 |
| 400 | 100 | 34.00 |
| Total | 293 | 100.00 |

From Table 5, 100 respondents each out of the 293 respondents representing 34% apiece were level 200 and 400 students respectively. Also, 93 respondents representing 32% were in level 300.

### Instrument

The instrument used for data collection was a self-developed questionnaire. The questionnaire consisted of mainly close ended items which demanded respondents to tick responses that best applied to them. The questionnaire was in two sections. Section A which was made up of six items elicited information on the demographic characteristics of the respondents (selected characteristics were gender, age, academic programme and year level). Respondents were asked to write their age in years and indicate their level of study and residential status. Section B focused on respondents' level of knowledge on services provided at the U.C.C. hospital, how easy it is to access the U.C.C. hospital, and the perceived quality of services provided at the U.C.C. hospital and general utilisation of the hospital. Various five-point Likert attitudinal scale type and alternate choice items numbering 60 were used to solicit information in this regard (refer to Appendix A).

The instrument was validated by the supervisors after two research assistants; one from the Department of Health, Physical Education and Recreation (HPER) of University of Cape Coast and the other from Department of Health, Physical Education Recreation and Sports (HPERS) of University of Education, Winneba had scrutinised and effected the needed corrections. This was to ensure that the instrument was void of ambiguities. Validity was ensured because according to Best & Khan (1993) validity and reliability of questionnaires deserve careful consideration.

**Pre-Testing of Instrument**

After the questionnaire items were certified by the principal supervisor as meeting face and content validity, it was administered to a comparable sample. This was to ensure that; items were correctly worded and understandable to respondents; and that the instrument possessed acceptable internal consistency by means of sharpening and fine tuning it by correcting possible weaknesses, inadequacies and ambiguities that characterised the items. This afforded me the opportunity to ascertain whether the instructions provided for the items were explicit enough to elicit the desired responses.

Thirty undergraduate students accommodated at Queen's Hall (Kwame Nkrumah University of Science and Technology) were conveniently selected to take part in the pre-testing of the instrument for the study. These students were used because they have similar characteristics with students that were sampled for the actual study. Blank spaces were left on the questionnaire items for respondents to comment on any identified inaccuracies and inadequacies particularly ambiguous questions. They indicated those that were difficult to

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understand and quite ambiguous. Based on these comments, the unclear items were assessed and evaluated, biased and deficient items were made self explanatory, free of ambiguities and simple worded.

**Validity and Reliability of Instrument**

The purpose of the validation of the research instrument is to ascertain whether the instrument will actually be testing what it is designed to test. Draft copies of the questionnaire were given to two senior lecturers in the area of the study for content validation. Their input helped me validate the instrument. Best and Kahn (1993) have observed that validity and reliability of questionnaires deserve careful consideration in any scientific research. In view of this, the completed questionnaire items from the pilot group were analysed a week after administration to establish the content validity and reliability of the instrument.

The Cronbach coefficient alpha, a measure of internal consistency was used in the determination of the reliability of the instrument. The internal consistency reliability coefficient was 0.881. This was considered to be acceptable since according to Fraenkel and Wallen (2000) reliability should be at least 0.70 and preferably higher. The Cronbach co-efficient alpha was deemed appropriate since the items in the questionnaire were multiple-scored especially on the Likert-type scale. It was also applied on the merit of Ary, Jacobs and Razavieh's (1985) view that Cronbach alpha is used when measures have multiple scored items such as attitudinal scales. For instance on the Likert-type scale, the individual may receive a score from 1-5 depending on which option was chosen.

## Data Collection Procedure

The administration of the questionnaire began when the principal supervisor gave an approval for it to be utilised. An introductory letter was sought from the Head, Department of Health, Physical Education and Recreation (HPER) to the hall masters or wardens of the various halls and managers of the selected private hostels to seek permission to conduct the study in their halls and hostels (see Appendix B). The questionnaires were administered from hall to hall or from hostel to hostel. Two weeks was used to administer the questionnaire. They were administered during the third week of resumption of 2010/2011 academic year that is between 28th August, 2010 and 11th September, 2010.

After explaining the rationale behind the study, permission was given to conduct the study. After identifying the right respondents for the study, the questionnaire was administered to them. The questionnaire were administered in their respective halls/hostels specifically their rooms to make retrieving easier. The telephone numbers of those who were not in their rooms were requested from the porters' lodge and contacted. Their whereabouts were located and the questionnaire given to them there.

Follow-up schedule was planned in order to achieve a very high return rate. The completed questionnaire items were collected two weeks after the administration. A total of 300 questionnaires were given out and 293 were received. The return rate was therefore 97.7%.

## Data Analysis

The first step of data analysis in this study was to serially number responded copies of the questionnaires after which they were checked for inconsistencies,

completeness and accuracy. The edited responses was coded and scored. Five Likert scale items were scored 5, 4, 3, 2, and 1 from the highest to the lowest level. Items with responses "Yes" or "No" were scored 2 and 1 respectively.

The second set of analysis was done to answer the research questions. The Statistical Package for the Social Sciences (SPSS) Version 16.0 software was used to analyse all items in the instrument. The entered data were tested for the normality rule. Responses to all close-ended items on the data collected were measured on the numerical scale. The data collected were subjected to both descriptive (frequencies and percentages) and inferential (Pearson's product moment correlation) statistics analysis.

To answer research question one as to whether students' knowledge of availability of healthcare services available at the U.C.C. hospital influence the utilisation of the U.C.C. hospital by the undergraduate students, four steps were followed; responses to item on level of utilisation of U.C.C. hospital were quantified and a composite score was generated for the responses; responses to items on level of knowledge about availability of healthcare services at the U.C.C. hospital were quantified and a composite score was generated for the responses; frequency distribution of the composite scores was developed; correlation of composite scores to level of knowledge and composite scores to level of utilisation were also developed.

To answer research question two as to the extent to which undergraduate students at U.C.C. have easy access to healthcare services at the U.C.C. hospital, three components of access were separately examined; geographic, functional,

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and financial. For each of the components of access frequency distribution of the component was developed.

To answer research question three that is, "how does the perceived quality of service at U.C.C. hospital influence the utilisation of U.C.C. hospital by the undergraduate students?" three steps were followed; responses to items on level of utilisation of U.C.C. hospital were quantified and a composite score was generated for the responses; responses to items on three components of perceived quality of services provided at the U.C.C. hospital were quantified and a composite score for each component was generated for the responses (behaviour, attitude, and conduct of personnel, waiting time, and efficacy/effectiveness of the services); frequency distribution of the composite scores was developed; correlation of composite scores for each component and composite scores to level of utilisation was also developed.

# CHAPTER FOUR

## RESULTS AND DISCUSSION

The purpose of the study was to find out which factors influence the utilisation of healthcare services provided at the U.C.C. hospital. This chapter presents the result of the study and the discussion of the result. The result is presented for each of the research questions, each of which is followed by detailed discussion of the findings. Unless otherwise stated in the discussion, all strongly disagree and disagree were considered as disagree likewise all very low and low were considered as low and very poor and poor as poor.

### Research Question 1: Does Students' Knowledge of Services available at U.C.C. Hospital Influence the Utilisation of the U.C.C. Hospital by the Undergraduate Students?

This question sought to find out the influence of students' knowledge of services available at the U.C.C. hospital on the utilisation of the hospital. The details are presented in Table 6.

It is seen from Table 6 that 51% (150) of the respondents indicated that they always use the U.C.C. hospital. Again, it can be observed that 28% (82) of the respondents reported that they sometimes use the U.C.C. hospital whilst 21% (61) stated that they have never used the facility.

**Table 6: Frequency Distribution of Level of Utilisation of Healthcare**
**Services at the U.C.C. Hospital**

| Level of | Always | | Sometimes | | Never | | Total | |
|---|---|---|---|---|---|---|---|---|
| Utilisation | n | % | n | % | n | % | n | % |
| Male | 42 | 39 | 22 | 21 | 43 | 40 | 107 | 100 |
| Female | 108 | 58 | 60 | 32 | 18 | 10 | 186 | 100 |
| Total | 150 | 51 | 82 | 28 | 61 | 21 | 293 | 100 |

**Table 7: Frequency Distribution of Level of Knowledge about Availability of**
**Healthcare Services at the U.C.C. Hospital**

| Gender | Very High | | High | | Low | | Total | |
|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % |
| Male | 20 | 19 | 21 | 20 | 66 | 62 | 107 | 100 |
| Female | 93 | 50 | 63 | 34 | 30 | 16 | 186 | 100 |
| Total | 113 | 39 | 84 | 29 | 96 | 33 | 293 | 100 |

Table 7 shows that 39% (n = 113) of the respondents stated that their knowledge level about the services provided at the U.C.C. hospital was very high while 29% (n = 84) of the respondents indicated that their knowledge level about the services provided at the U.C.C. hospital was high. In contrast, 33% (n = 96) of the respondents stated that their knowledge level about the services provided at the hospital was low.

Orientation for freshmen and women was cited as the highest source of knowledge about the services of the U.C.C. hospital by the respondents as 72.40% (n = 212) reported as such. Information from friends on the services provided at

the hospital was also cited by 10.30% (n = 30) as their source of knowledge about the hospital. Additionally, 17.30% (n = 51) indicated radio as their source of knowledge about the services provided at the facility.

A Pearson's product moment correlation of knowledge level on availability of healthcare services and the utilisation of the U.C.C. hospital revealed that level of knowledge about availability of healthcare services was positively related to level of utilisation of the U.C.C. hospital [r = .239, n = 293, p < .05, two tailed]. Therefore, the knowledge of availability of healthcare services at the U.C.C. hospital was associated with the utilisation of the hospital.

This finding is consistent with McKinlay (2002) and Okundele (2005) who reported that the increase in the use of healthcare service is not only related to age but knowledge of availability of the healthcare service(s), proximity and increasing number of chronic diseases. It is also in line with Lindsey (2006) who stipulated that among other things, one's level of knowledge on any facility determines the level of use of that facility.

The educational level of the respondents could have accounted for the high level of knowledge on the availability of healthcare services at the U.C.C. hospital due to the fact that students at the university level can read and understand basic information on health at any level. Moreover, the compulsory medical test required of fresh men and women at the university may have also exposed some of them to the services and the various resources at the hospital thereby contributing to their knowledge level of the hospital.

University of Cape Coast's policy of exposing fresh men and women of the university to the services offered at the various departments of the university

including the university hospital contributed to the students' high knowledge on the availability of healthcare services provided at the hospital. To maximise the utilisation of the university hospital by the undergraduate students, it will be important to continue and deepen the hospital's segment of the annual orientation. It was also important to have observed that other sources of information as the radio contributed to the high knowledge level of the services provided at the U.C.C. hospital because it has been established as a means by which some students get their information.

It is again important to have noted that some of the students were ready to share information on the services provided at the U.C.C. hospital with their colleagues. Knowledge on availability on healthcare services is pertinent to the use of health services therefore it is important that the university hospital administration deepens its education on the services available at the hospital. According to Okundele (2005) and Lindsey (2006), dissemination of vital information to university students can best be done through the following means; notice boards, flyers and campus based/local radio stations. If the university authorities want to increase utilisation of healthcare services provided by the university hospital, then these avenues indicated by Okundele (2005) and Lindsey (2006) must be exploited to reach out to the university students.

In assessing respondents' level of knowledge on the availability of healthcare services, the functions or operations of these services were not assessed by this study as has been posited by McKinlay (1972). However, other studies can be conducted on this line to explore the level of knowledge on the functions or operations of the services provided by the university hospital.

**Research Question 2: To what Extent do Undergraduate Students at**

**U.C.C. have easy Access to Healthcare Services in U.C.C. Hospital?**

This question looked at the extent of accessibility of healthcare services at U.C.C. hospital. The three different components of access; geographic, availability, and financial were separately analysed. The details are presented in Tables 8-10.

**Table 8: Frequency Distribution of Geographic Access of Students to U.C.C. Hospital**

| Distance | Always | | Sometimes | | Never | | Total | |
|---|---|---|---|---|---|---|---|---|
| | n | % | n | % | n | % | n | % |
| ≤ 1km | 93 | 88 | 9 | 8 | 4 | 4 | 106 | 100 |
| 1-2km | 85 | 98 | 2 | 2 | 0 | 0 | 87 | 100 |
| 3-4km | 32 | 39 | 49 | 59 | 2 | 2 | 83 | 100 |
| 5-6km | 0 | 0 | 13 | 76 | 4 | 24 | 17 | 100 |
| ≥7km | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| Total | 210 | 72 | 73 | 25 | 10 | 3 | 293 | 100 |

From Table 8, 88% (n = 93) of the respondents whose residence were up to 1km to the U.C.C. hospital always used the hospital. Similarly, 8% (n = 9) of those whose residence were less or equal to 1km to the U.C.C. hospital sometimes used the hospital. Additionally, 4% (n = 4) of those whose residence were less or equal to 1km to the U.C.C. hospital never used the services provided at the hospital. It can again be observed that majority 98% (n = 85) of the respondents whose residence were between 1-2km to the U.C.C. hospital indicated that they

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always used the U.C.C. hospital whilst 2% stated that they sometimes used the services provided at the U.C.C. hospital.

Additionally, 39% (n = 32) of the respondents whose residence were between 3-4km to the U.C.C. hospital indicated that they always used the services provided at U.C.C. hospital. Again, 59% (n = 49) of the respondents whose residence were between 3-4km to the U.C.C. hospital indicated that they sometimes used the services provided at U.C.C. hospital whilst 2% of the respondents whose residence were between 3-4km to the U.C.C. hospital indicated that they never used the services provided at U.C.C. hospital. Furthermore, 76% (n = 13) of the respondents whose residence were between 5-6km to the U.C.C. hospital stated that they sometimes used the services provided at the U.C.C. hospital whilst 24% (n = 4) of the respondents whose residence were between 5-6km to the U.C.C. hospital stated that they never used the services provided at the U.C.C. hospital. None of the respondents reported that they lived a distance greater than or equal to 7km.

**Table 9: Frequency Distribution of Availability/Functional Access
         of Students of U.C.C. to Hospital**

| Access level | Frequency | Percent |
| --- | --- | --- |
| Always | 150 | 51.00 |
| Sometimes | 82 | 28.00 |
| Not at all | 61 | 21.00 |
| Total | 293 | 100.00 |

From Table 9, 51% (n = 150) of the respondents indicated that they always have access to the services provided at the U.C.C. hospital. Again, 28% (n = 82) of the respondents stated that they sometimes have access to the services provided at the U.C.C. hospital whilst 21% (n = 61) reported that they do not all have access to the services provided by the U.C.C. hospital.

**Table 10: Frequency Distribution of Financial Access of Students to U.C.C. Hospital**

| Payment system | Frequency | Percent |
| --- | --- | --- |
| NHIS | 190 | 65.0 |
| NHIS and out of pocket | 103 | 35.0 |
| Total | 293 | 100 |

As depicted in Table 10, 65% (n = 190) of the respondents reported that they access the services at the U.C.C. hospital through the NHIS. The remaining 35% indicated that they pay their hospital bills through the NHIS and out of their pocket.

The revelations on geographic access, availability/functional access and financial access from respondents indicated that majority of the undergraduate students had access to healthcare services at the U.C.C. hospital in terms of location, demand and cost. This finding is consistent with Rush (2006), Cameron (2005) and Foster (1987) who observed that having easy access to the services provided by healthcare facility usually influence people to report diseases to the facilities regularly.

Cargile (1995) clarified that access means healthcare services are unrestricted by geographic, economic, social, cultural, organisational or linguistic barriers. Geographic access may be measured by modes of transportation, distance, travel time, and any other physical barriers that could keep the client from receiving care. Economic access refers to the affordability of products and services for clients. Social or cultural access relates to service acceptability within the context of the client's cultural values, beliefs, and attitudes.

Mubarak (2007) has indicated that geographic factors such as (distance and weather) and cost may not have influence on ones decision to utilise a particular healthcare service if he or she can be assured of quality. In line with this, Ameyaw (2003) postulated that some Ghanaian populace particularly the rich will defy distance and cost for healthcare services. Delays in deciding to go for treatment, delays in getting a vehicle or other means to the healthcare facility, and delays in getting treatment at the healthcare facility have been cited by Foster (1987) as avoidable factors in healthcare delivery in some rural African communities.

The proximity of the U.C.C. hospital to the various residences both (resident and non-resident) of students will help eliminate one of the delays in healthcare utilisation identified by Foster (1987). Most of the respondents lived 1km or less to the U.C.C. hospital possibly being the reason behind majority of them always accessed the hospital. Those respondents who indicated that they have never used the facility may have done so because they may live far from the hospital and/or may be accessing other hospitals within the metropolis that are closer to them.

The U.C.C. hospital offers almost all the basic services a general hospital is required to provide to its clients. Students requiring various healthcare service(s) are guaranteed to have such service at the university hospital. This prompted majority of the respondents to indicate that their accessibility to the U.C.C. hospital was always assured. If some significant number of the respondents (35%) indicated that they pay their hospital bills from their pockets in spite of the compulsory NHIS policy at the university, then this phenomenon could be due to what Yoder (1997) observed in a comparable study in Malawi. Yoder observed that either the students do not go through the required registration process to be duly insured or the services students require fall out of the services the insurance system pay for. As observed by Foster (1987), the financial cost in seeking healthcare has undoubtedly become a major barrier in patients seeking appropriate healthcare. In view of this, it can be said that the medical examination fresh men/women of U.C.C. go through before being registered and the direct payment of extra fees on drugs prescribed outside the NHIS drug list or services at the hospital can be a barrier to the utilisation of the services at the hospital.

**Research Question 3: How does the Perceived Quality of Service at the U.C.C. Hospital Influence the Utilisation of U.C.C. Hospital by the Undergraduate Students?**

In assessing the perceived quality of services provided at the U.C.C. hospital and its influence on utilisation, the behaviour or attitude of the medical personnel (doctors, nurses and other supporting staff), waiting time, and the general efficacy/effectiveness of the services provided at the hospital were considered. The details are presented in Tables 11-13.

**Table 11: Frequency Distribution of Assessment of Personnel Behaviour or Attitude**

| Response | Frequency | Percent |
|----------|-----------|---------|
| Very Poor | 15 | 5.00 |
| Poor | 100 | 34.00 |
| Good | 178 | 61.00 |
| Total | 293 | 100 |

Table 11 shows that 5% (n = 15) of the respondents indicated that the behaviour or attitude of the personnel at the U.C.C. hospital was very poor. Whilst 34% (n = 100) stated that the behaviour/attitude of the personnel at the U.C.C. hospital was poor. However, 61% (n = 178) of the respondents indicated that the behaviour or attitude of the personnel at the hospital was good.

Association of perceived quality (personnel behaviour/attitude) of the U.C.C. hospital and the utilisation of the services were determined. Scores on personnel behaviour, attitude, and conduct were significantly related to scores on level of utilisation [r = .466, n = 293, p < .05, two tailed].

From Table 12, 18% (n = 53) of the respondents indicated that waiting time to access healthcare services at the U.C.C. hospital was very poor. Almost 43% indicated that waiting time to access healthcare services at the hospital was poor. However, 39.3% of the respondents indicated that waiting time to access healthcare services at the hospital was good. The Pearson's product moment correlation of the data also revealed that waiting time at the hospital and utilisation of the services were significantly related [r = .316, n = 293, p < .05,

two tailed]. Waiting time at the hospital was associated with utilisation of the hospital.

**Table 12: Frequency Distribution of Student Assessment of Waiting Time at the U.C.C. Hospital**

| Response | Frequency | Percent |
|----------|-----------|---------|
| Very Poor | 53 | 18.0 |
| Poor | 125 | 42.7 |
| Good | 115 | 39.3 |
| Total | 293 | 100 |

**Table 13: Frequency Distribution of Efficacy/Effectiveness of Services Provided at U.C.C. Hospital**

| Response | Frequency | Percent |
|----------|-----------|---------|
| Very Poor | 21 | 7.2 |
| Poor | 28 | 9.6 |
| Good | 244 | 83.2 |
| Total | 293 | 100 |

Table 13 shows that 7.2% (n = 21) of the respondents reported that the efficacy/effectiveness of the services provided at the hospital was very poor. Also, 9.6% (n = 28) of the respondents indicated that the efficacy/effectiveness of the services provided at the hospital was poor. However, a majority of 83.2% (n = 244) indicated that the efficacy/effectiveness of the services provided at the hospital was good. Association of the efficacy/effectiveness of the services provided at the hospital and the utilisation of the services was determined.

Person's product moment correlation of the data revealed that the efficacy/effectiveness of the services provided at the hospital and utilisation of hospital were significantly related [r = .586, n = 293, p < .05, two tailed].

Perceived quality (personnel behaviour/attitude, waiting time and efficacy/effectiveness) influence the utilisation of the services provided at the U.C.C. hospital. These findings are in line with Mensah (2003) who indicated that expression of patients' satisfaction of the services provided at the hospital leads to early recovery and future use of the health facility. Balthussen, Ye, Haddad and Sauerborn (2002), and Aldana, Piechulek and Al-sabir (2001) also explained the importance of the three indicators of quality in utilisation.

Brown et al. (1993) stipulated that in healthcare delivery, quality of healthcare is usually defined in the light of the provider's technical standards and patients' expectations. Quality healthcare delivery is required by all because healthcare delivered at the patient's expectation assumes quality (Kant, 2006). To help patients identify whether they are getting quality of service, Nelson (2007) admonished patients to find out if their healthcare; fits their needs and preferences, is right for their illness, is given without unnecessary delay, includes only the medical tests and procedures that they need, is fair and not affected by such things as their gender, language, colour, age or income.

On the contrary, Bannerman et al. (2009) hinted that poor quality of healthcare results in loss of customers, lives, revenue, material resources, time, morale, staff, recognition, trust and respect and in individuals and communities' apathy towards health services, all of which contribute to lowered effectiveness and efficiency.

Though the general response of the respondents on perceived quality of healthcare services at the university hospital was good, the number of the respondents who perceived the quality of service as very poor cannot be ignored because of the implications such perception can generate. In view of this, instituting a quality control unit as stipulated by Mensah (2003) to purge the hospital of all such tendencies as (prolonged waiting time before being served, irresponsible and unprofessional personnel behaviour or attitude and effectiveness of the services provided) will help eliminate such perception in order to maximise utilisation.

# CHAPTER FIVE

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of the study was to find out which factors influence the utilisation of healthcare services provided at the U.C.C. hospital. In this chapter, the findings have been summarised and presented. Conclusions have also been drawn and recommendations made based on the findings. Suggestions for further research have also been added.

### Summary

The importance of health is most considered in the steps most nations of the world have taken to ensure that their citizens have easy access to medical care. While most European countries have taken steps in making healthcare accessible to all their citizens, conditions in Africa are not favourable for such a venture.

The study sought to ascertain the factors that influenced utilisation of the healthcare services provided at the U.C.C. hospital. Three research questions were posed to guide the study. A descriptive quantitative survey was used to examine the factors influencing the utilisation of the hospital by the undergraduate students. A total of 293 undergraduate students who have stayed in the university for more than a year were conveniently selected for the study. A self-generated questionnaire was used to collect data. To determine the reliability and validity of the instrument, pre-testing was conducted on 30 undergraduate students of Queen's Hall at the Kwame Nkrumah University of Science and Technology who

were conveniently selected. The Cronbach alpha coefficient (a measure of internal consistency reliability) was 0.881. The data was analysed using descriptive statistics of frequencies and percentages and inferential statistics of Pearson's product moment correlation.

## Key Findings

The study revealed that:

1. The level of knowledge on the availability of healthcare services at the U.C.C. hospital was very high. A Pearson's product moment correlation of the data revealed that knowledge of availability of healthcare services and utilisation of the U.C.C. hospital were significantly related.

2. Majority of the undergraduate students had access to healthcare services at the U.C.C. hospital in terms of location, demand and cost.

3. Perceived quality of services at the U.C.C. hospital influence utilisation of the services being provided.

## Conclusions

Based on the findings of the study it is concluded that utilisation of healthcare services provided at U.C.C. hospital is influenced by; knowledge on availability of healthcare resources/services, distance from healthcare facility to patients' residence, availability of healthcare services and cost of healthcare delivery, efficacy/effectiveness of service provision, attitude or behaviour of service providers, and waiting time at the healthcare facility.

## Recommendations

In view of the findings of the study, the following recommendations were made;

1. The university administration should intensify the dissemination of information to make the students aware and more knowledgeable of the activities or healthcare services of the hospital. Also, the administration should internally revise the NHIS drug list to include some drugs that fall out of it in order to maximise utilisation among the students.

2. The university administration must deepen the priorities given to students on accessibility of the university hospital's services to maximise utilisation of the services.

3. The university hospital administration must institute quality control unit to assess and purge itself of all tendencies such as (prolonged waiting time before being served, irresponsible and unprofessional personnel behaviour or attitude and effectiveness of the services provided) that are likely to cause poor quality of service at the hospital.

## Suggestions for Further Research

In assessing respondents' level of knowledge on the availability of healthcare services, the functions/operations of these services were not assessed by this study. It is therefore recommended that other studies can be conducted on this line to explore the level of knowledge on the functions/operations of the services provided by the university hospital.

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**APPENDICES**

UNIVERSITY OF CAPE COAST

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION AND RECREATION

QUESTIONNAIRE

Dear Sir/Madam,

This questionnaire is being used to elicit information on the factors influencing the utilisation of University of Cape Coast hospital by the undergraduate students. The information is being collected as part of a Master of Philosophy thesis work, and it is therefore strictly for academic purposes. I will be grateful to you for taking part in the study by answering the questions as honestly as possible.

Please be assured of anonymity and confidentiality.

Thank you.

Francis Nsafoah

(Researcher)

0244478202

## SECTION A

1. Sex: ☐ Male ☐ Female

2. Level: …………………………..

3. Residential Status: ☐ Resident ☐ Non-Resident

4. Hall of residence (Residential): ………………………………

5. Hostel of residence (Non-residential): …………………………

6. Age: …………………………...

## SECTION B

Please tick to indicate the extent to which you have knowledge of the existence of the following services offered at the U.C.C. hospital and its influence on your utilisation of the hospital.

| Service | Very high | High | Undecided | Low | Very Low |
|---|---|---|---|---|---|
| 7. Laboratory | | | | | |
| 8. X-ray facility | | | | | |
| 9. Dispensary | | | | | |
| 10. Dentistry | | | | | |
| 11. Medical personnel (Doctors) | | | | | |
| 12. Registry (records) | | | | | |
| 13. Ear, nose and throat (E.N.T) facility | | | | | |
| 14. Emergency unit | | | | | |
| 15. Nurses and supporting staff | | | | | |

16. How did you get to know of the U.C.C. hospital?

Through;

☐ Orientation ☐ Brochure ☐ Friend ☐ Radio

17. Other, please specify:……………………………………………..............

Please indicate by a tick [√] in the column the response which best describes your level of acceptance of the statement below.

| Source of attraction | Strongly agree | Agree | Undecided | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| 18. Laboratory | | | | | |
| 19. X-ray facility | | | | | |
| 20. Dispensary | | | | | |
| 21. Dentistry | | | | | |
| 22. Registry (Records) | | | | | |
| 23. Medical personnel (Doctors) | | | | | |
| 24. Nurses and other supporting staff | | | | | |
| 25. Ear, nose and throat (E.N.T) facility | | | | | |
| 26. Emergency unit | | | | | |

How easy is it to access these services whenever you need it?

| Services | Always | Most of the time | Sometimes | Scarcely | Not at all |
|---|---|---|---|---|---|
| 27. Dental services | | | | | |
| 28. X-ray service | | | | | |
| 29. Medical personnel (Doctors) | | | | | |
| 30. Laboratory service | | | | | |
| 31. Records | | | | | |
| 32. Dispensary | | | | | |
| 33. Consulting | | | | | |
| 34. Ear, Nose and Throat service | | | | | |
| 35. Emergency service | | | | | |
| 36. Nurses and supporting staff | | | | | |

37. Which of the following services have you ever used at the U.C.C hospital?

☐ Dental service     ☐ X-ray service

☐ Records     ☐ Laboratory

☐ E.N.T service     ☐ Dispensary

☐ Emergency service     ☐ Consulting (doctors)

☐ Nurses and supporting staff

38. Other, please specify ………………………………………….

39. What is the estimated distance between your residence and the U.C.C.

hospital?

☐ 1-2 kilometres ☐ 3-4 kilometres ☐ 5-6 kilometres

☐ 7-8 kilometres ☐ Over 8 kilometres

40. How long does it take you to move from your residence to the U.C.C. hospital

to access health care? ☐ Less than 30 minutes ☐ 30 minutes

☐ 31minutes-1 hour ☐ Over 1 hour.

41. How did you pay for your healthcare service at the U.C.C. hospital?

☐ NHIS ☐ Out of pocket ☐ Out of pocket and NHIS

42. How would you rate the general financial cost of services provided at the

U.C.C. hospital?

☐ Very Cheap ☐ Cheap

☐ Moderate ☐ Expensive

☐ Very expensive

43. Does the payment system influence your future attendance?

☐ Yes ☐ No

How long does it take you to obtain the following services?

| Services | V. Short | Short | On required time | Long | V. Long |
|---|---|---|---|---|---|
| 44. Records | | | | | |
| 45. Consulting | | | | | |
| 46. Laboratory | | | | | |
| 47. X-ray | | | | | |
| 48. Dispensary | | | | | |
| 49. Dentistry | | | | | |
| 50. Maternity | | | | | |
| 51. Emergency | | | | | |
| 52. Family Planning | | | | | |
| 53. ENT | | | | | |

54. If you have ever used the U.C.C. hospital before, would you consider using it again?

| Always | Most of the time | Sometimes | Scarcely | Never |
|---|---|---|---|---|
| | | | | |

55. If you have never used the U.C.C. hospital before, will you consider using it?

| Always | Most of the time | Sometimes | Scarcely | Never |
|--------|------------------|-----------|----------|-------|
|        |                  |           |          |       |

56. How will you rate the general quality of services provided at the U.C.C. hospital?

| Very Poor | Poor | Undecided | Good | Very Good |
|-----------|------|-----------|------|-----------|
|           |      |           |      |           |

57. How will you rate the quality of services provided at the U.C.C. hospital in terms of waiting time at the hospital

| Very short | Short | Moderately short | Long | Very long |
|------------|-------|------------------|------|-----------|
|            |       |                  |      |           |

58. How will you rate the quality of services provided at the U.C.C. hospital in terms of behaviour/attitude of medical staff (Doctors, nurses and other staff)

| Very Poor | Poor | Undecided | Good | Very Good |
|-----------|------|-----------|------|-----------|
|           |      |           |      |           |

59. How will you rate the quality of services provided at the U.C.C hospital in terms of efficacy/effectiveness of service provided.

| Very Poor | Poor | Undecided | Good | Very Good |
|-----------|------|-----------|------|-----------|
|           |      |           |      |           |

60. How often do you use the U.C.C. hospital?

| Always | Most of the time | Sometimes | Scarcely | Never |
|--------|------------------|-----------|----------|-------|
|        |                  |           |          |       |

# UNIVERSITY OF CAPE COAST

# FACULTY OF EDUCATION

*Department of Health, Physical Education & Recreation*

TELEPHONE: 233-0332130634/0332132480-9 Ext 253

*TELEX:* 255 UCC.GH                    **Cables & Telegrams**:

*Our Ref:* **HPER/40/SF.1/104**          UNIVERSITY OF CAPE COAST

*Your Ref:*                              April 24, 2013.

The Hall Masters/Wardens

U. C. C.

Cape Coast

## <u>INTRODUCTORY LETTER</u>

The bearer of this letter, **Mr. Francis Nsafoah** is a student of the Department of Health, Physical Education and Recreation, who is working on his Dissertation that may require data collection from your outfit.

We would be grateful if all the needed assistance is given to him.

If you have any question you may contact the Department on **03321-30634**

Thank you.


Dr. Joseph K. Ogah

**HEAD OF DEPT**