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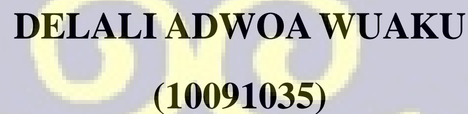
SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

ASSESSMENT OF QUALITY OF HEALTHCARE AMONG THE ELDERLY PATIENTS UTILISING THE KORLE-BU TEACHING HOSPITAL, ACCRA



DELALI ADWOA WUAKU

(10091035)

THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DOCTOR OF P.HD IN PUBLIC HEALTH DEGREE

DECEMBER, 2019

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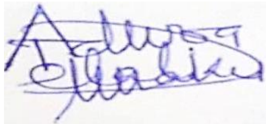
DECLARATION

I, Delali Adwoa Wuaku, declare that, with the exception of materials cited from other people's studies, which have been appropriately recognized, this study is the outcome of my personal original investigation, and that this thesis, either in full or in part, has not been offered to another institution for an award of any degree.



----------------------------------- 28th JULY, 2020

DELALI ADWOA WUAKU DATE

(STUDENT)

30-07-2020

------------------------------------ --------------------------

DR. REUBEN K. ESENA DATE

(PRIMARY SUPERVISOR)

31 July, 2020

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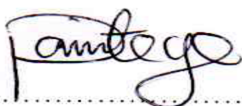
DR. AUGUSTINE ADOMAH-AFARI DATE

(SECONDARY SUPERVISOR)



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DR. PATIENCE ANITEYE DATE

(SECONDARY SUPERVISOR)

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ABSTRACT

Background: The elderly tend to have a disproportionately high need for utilisation of healthcare services because they exhibit multiple disorders, have limited regenerative abilities, and are prone to diseases, syndromes, and sicknesses. These elderly persons are relatively regular consumers of the Out Patient Department's care. The seeming lack of provision of suitable and quality healthcare services to the elderly is emerging as one of the main impediments of this era. The fundamental requirement to increase utilisation for the elderly persons is to improve the quality of healthcare services delivered in hospitals.

Objective: The study sought to assess the quality of healthcare services among the elderly patients utilising the Korle-Bu Teaching Hospital, Accra.

Methods: The study was a descriptive cross-sectional survey using a sequential explanatory mixed methods approach. In the quantitative study, questionnaires were used to elicit information from three hundred and sixty-one (361) elderly persons. Purposive sampling was used to select elderly persons from the seven Out-Patient Departments in the Korle-Bu Teaching Hospital in Accra. Simple random sampling [lottery method] was used to select the elderly persons in the inclusion criteria.

The quantitative data was analysed by the use of chi-square test to determine the relationship between the socio-demographic characteristics of the elderly and the variables measuring utilisation of healthcare services (cost, accessibility, health personnel attitude, physical support, information and waiting time). In addition, Ordinal Logistic Regression was used to determine the relationship between the predisposing, enabling and need factors of the elderly and each of the variables measuring utilisation of healthcare services. Furthermore, one-way analysis of variance and Generalised Linear Model were used to examine the socio-demographic characteristics and quality of healthcare.

In the qualitative study, purposive sampling method and then convenience sampling

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method were used to select seventy-six (76) elderly persons from the seven selected Out-Patient Departments. Qualitative study was conducted to obtain an in-depth understanding of the quality of healthcare services by the elderly patients utilising the Korle-Bu Teaching Hospital. Thematic content analysis was used to analyse the data. The interview transcripts were read to identify emerging themes and sub-themes, and were exported into Nvivo version 11 software for data organisation.

Quantitative Results: The study showed that, the elderly persons who were accompanied to the health facility were 1.86 times more likely (OR=1.86, 95% CI; 1.13-3.08) to rate accessibility of healthcare services on a higher scale than the elderly persons who visited the hospital by themselves (p=0.016). The elderly who were beneficiaries of NHI were 0.42 times less likely (OR=0.42, 95% CI; 0.18-0.97) to rate accessibility of healthcare services on a higher scale compared with the elderly who were non-beneficiaries (p=0.042). The elderly persons with secondary school education and above were 0.53 times less likely (OR=0.53, 95% CI; 0.34-0.84) to rate cost on utilisation of healthcare services on a higher scale compared with the elderly persons with pre-secondary education (p=0.006). Adjusting for other factors, the elderly persons with multiple chronic conditions were 1.56 times more likely to rate cost on a higher scale compared with the elderly with one chronic condition (OR=1.56, 95% CI=1.04-2.34) (P=0.03). Furthermore, the study reported that, there was a decreasing trend in the rating of quality of healthcare services with increasing number of chronic conditions (p=0.042). The results indicated that both female and male elderly persons regarded quality of healthcare to be the same (p=0.808).

Qualitative Findings: The elderly persons described the waiting time as long and stressful. They developed swollen feet and bodily pains due to the long waiting time. They clarified that the diagnostic investigation, medication and consultation fees were expensive, leading to postponement of their subsequent visits and deterioration of their

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health. Additionally, the elderly persons specified that they woke up very early to report timely at the Out-Patient Departments by means of 'drop in' taxi that was very costly. Furthermore, at the Out-Patient Department, they faced cumbersome procedures before seeing the doctors.

With respect to the quality of healthcare provided at the hospital, feedback from the health personnel was reported harshly, and they provided negligible physical assistance. The elderly described the seats at the waiting rooms as being very low and uncomfortable. Nevertheless, the elderly persons described the health personnel as skillful and knowledgeable. Unexpectedly, the elderly were satisfied with the healthcare services at the Korle-Bu Teaching Hospital. For the elderly participants, satisfaction meant improvement in their health.

Conclusion: Cost was a determining factor in utilising healthcare by the elderly patients. The health personnel were described as being skillful and knowledgeable in providing healthcare. The improvements in the general health of the elderly made them satisfied with healthcare services.

Recommendations: The study recommends that policy makers should include elderly persons from age 60 years to 69 years in the National Health Insurance exemption policy to enable the majority of them to utilise the healthcare services. Additionally, there is the need to review visits to the healthcare units to schedule time appointments to reduce the long and stressful waiting time.

Key words: elderly, healthcare services, quality, utilisation

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DEDICATION

This thesis is dedicated to God Almighty for bringing me this far.

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ACKNOWLEDGEMENT

I give glory to the Almighty God for how far He has brought me from a meek beginning. I consider my life as a fulfilment of what the Word of God states in Jeremiah 1:5 KJV "Before I formed thee in the belly I knew thee".

Many people have assisted me to get to where I am, and to complete this journey. It is difficult to know where to start this acknowledgement. First of all, my gratitude goes to my supervisors: Dr. Reuben K. Esena, who took a keen interest in reading the work; Dr. Augustine Adomah-Afari, who gave directions in writing of the thesis, and Dr. Patience Aniteye, who guided me in the writing of the study. I thank my supervisors for the painstaking job of supervising me throughout this study. I also thank all the lecturers of the School of Public Health for their guidance and support.

I wish to express my special appreciation to the Ministry of Health [MoH] for granting me study leave, the School of Public Health, for their Grant Award that aided me in my research, the University of Ghana Pan African Doctoral Academy Grant award for thesis completion, and the Ghana Education Trust Fund (GETFund), for their financial support in payment of my school fees in the third and fourth years. I thank the Chief Executive Officer (CEO) and managers of the Korle-Bu Teaching Hospital (KBTH), for allowing me to use their facility, and the elderly patients who gave their consent, and participated in the study.

There are many people who have served as my mentors, and watched my progress in this academic journey with keen interest and concern. Thank you for all your prayers, encouragement and wise counsel.

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OPERATIONAL DEFINITION OF TERMS

Elderly or Older Persons: Persons at age 60 years and above.

Enabling factors: Assets in the family.

Need factors: Chronic diseases the elderly are diagnosed with.

Out-Patient-Department (OPD): A part of the hospital where people come and receive treatment and go back home.

Predisposing factors: Demographic characteristics of the elderly.

Quality healthcare: Satisfaction of elderly persons with healthcare services.

Satisfaction: The elderly being content with improvement in their health.

Utilisation of healthcare: The usage of a hospital by the elderly for medical care.

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LIST OF ACRONYMS

BMC - Budget Management Centre
CEO - Chief Executive Officer
CFA - Confirmatory Factor Analysis
CHPS - Community-based Health Planning & Services
CT - Computed Tomography
CTU - Cardio Thoracic Unit
DDNS - Deputy Director of Nursing Services
DNA - Deoxyribonucleic Acid
ECG - Electrocardiogram
EDs - Emergency Departments
ENT - Ear, Nose and Throat
ER - Emergency Room
FI - Functional Impairment
GAR - Greater Accra Region
GP - General Practitioner
GSS - Ghana Statistical Service
GU - Genito-Urinary
HBM - Health Belief Model
HC - High Comorbidity
HRQL- Health-Related Quality of Life
IHD - Ischemic Heart Disease
IRB - Institutional Review Board
KBTH- Korle-Bu Teaching Hospital
KMO - Kaiser-Meyer-Olkin
LMICs - Low and Middle Income Countries
LR - Likelihood Ratio
M0 - No Distant Metastasis
M1 - Distant Metastasis
MCCs - Multiple Chronic Conditions
MHCs - Monthly Health Check-ups
MoH - Ministry of Health
MRI - Magnetic Resonance Imaging
NBLSS - National Basic Livelihood Security System

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NCDs - Non Communicable Diseases
NHI - National Health Insurance
NHIS - National Health Insurance Scheme
OPDs - Out Patient Departments
OLR - Ordinal Logistic Regression
PHC - Primary Health Care
PSA - Prostate-Specific Antigen
RH - Relatively Healthy
SDGs - Sustainable Development Goals
SEER - Surveillance, Epidemiology & End Result
SNF - Skilled Nursing Facility
SPH - School of Public Health
STC - Scientific and Technical Committee
TBAs - Traditional Birth Attendants
UK - United Kingdom
UN - United Nations
USA - United States of America
WHO - World Health Organisation

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CHAPTER ONE

INTRODUCTION

1.0. Background to the Study

The world's population is getting old and almost every nation in the world is facing an increase in the figure and percentage of the elderly persons in their populace (United Nations, 2015). According to the United Nations (2013), the consequences of ageing include declining mortality, and decreasing fertility. This development leads to a decrease in the percentage of children and a rise in the part of persons in the key working ages and the elderly in the population (United Nations, 2013).

Aikins and Apt (2016) observed that an increasing aged population is a worldwide phenomenon that affects both middle and low income countries. The elderly form one of the fastest-growing age groups worldwide (Pin & Spini, 2016). In 2013, the number of the elderly [60 years and above] was 841 million, representing about 12% share of the global population (Aikins & Apt, 2016). The percentage of persons aged 60 years and above is likely to double by 2050, and their exact figure is expected to be more than threefold, reaching two billion in 2050, which represents about 21% share of the global population (Aikins & Apt, 2016; Pin & Spini, 2016). Everyone has the right to live a healthy life, regardless of race, creed, and colour, political or social status. The elderly are not excluded from having a right to good health in their old age.

The elderly is defined as people aged 60 years and over (Ghana Statistical Service, 2013; United Nations, 2013). In the middle income nations, where life expectancy is high, and 65 years is the age of retirement from active economic activity, elderly persons are defined as individuals aged 65 years and older (GSS, 2013). In low income nations, where life expectancy is lower and 60 years is the age of retirement, the elderly persons are individuals aged 60 years and older (GSS, 2013). Aikins and Apt (2016) observed that

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population ageing is occurring fastest in Low and Middle Income Countries (LMICs) in Africa, Asia, and Latin America. It is estimated that, by 2050, about 80% of the world's older populace will be concentrated in these countries. It is expected that the elderly will exceed the number of children by 2050 (Aikins & Apt, 2016; World Health Organization (WHO), 2014).

Ghana's ageing population has increased seven fold over a fifty (50) year period from 213,477 in 1960 to 1,643,381 in 2010 (WHO, 2014). The current percentage of Ghanaians above 60 years is 5; this is one of the highest proportions of age 60 years category in sub-Saharan Africa (GSS, 2013). Persons aged 65 years and above presently make up a bigger portion of the populace than previously, and this group is expected to continue rising, both in complete and comparative terms to the rest of the population (Bloom, Mitgang, & Osher, 2016).

Growing old is a normal process, which presents impediments to all sections of the society. By the year 2025, virtually 75% of the ageing populace will be living in middle income countries (Beard & Bloom, 2015; Yiranbon et al., 2014). The world's populace is growing across all regions of the world (United Nations, 2015; Zaidi, 2015). Remarkable advancement in technology, education, equality, employment, medicine and public hygiene over the last 100 years has caused a growing number of persons living longer than they did previously (United Nations, 2015; Zaidi, 2015). This development, together with a decrease in fertility, is ensuing in a fast-growing populace of persons 60 years and above in several countries in the world. There are noticeable differences in the percentage of populace change between different regions (United Nations, 2015; Zaidi, 2015). Sub-Saharan Africa is the "youngest" region with just 5% of the populace being over 60 years matched with 24% in Europe (Zaidi, 2015).

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The gradual ageing of the population tends to increase the total number of the elderly; and elderly who are fragile, which in turn requires an offer of care that meets their health needs (Lubenow, Barrêto, de Almeida, & Oliveira, 2016). As people advance in age, their health and welfare could be a challenge. Sickness is inevitable and forms an integral part of human–life (Agrawal & Arokiasamy, 2010; Saeed et al., 2013). The prevalence rate of chronic Non-Communicable Diseases (NCDs), neurodegenerative disorders and disability (all forms) are expected to rise among the elderly (GSS, 2013).

An increasing elderly populace poses several impediments to the healthcare system because the health characteristics and complexity of care necessary for the elderly differ from those required for the younger populace, and this populace merits a precise healthcare service system (Beard et al., 2016; Chen, 2012). Saeed et al. (2013) proposed that an effective and well-organised healthcare organisation is important for the survival of the elderly; such a healthcare organisation can meet the desires of present and future generations of the elderly and support them to age positively. Furthermore, quality healthcare services should be made available, accessible and affordable for the elderly to attain a healthy lifestyle. Some researchers have identified that inadequate financial income, poor well-being status and impediments to utilisation of healthcare services, increase their susceptibility to numerous poor well-being consequences (Kumar, Shukla, Singh, Ram, & Kowal, 2016; Lindmeier, 2014).

Utilisation of healthcare services among the elderly persons is a very significant concern for both the elderly persons and health workers (Nahed, Hamid, & Mohammed, 2014). Underutilisation of healthcare services is still a main problem of public health sectors in Low Income Countries (LICs) (Krishnaswamy et al., 2009). Issues such as sex, age, schooling, insufficiency, outdated drug use and the journey to healthcare services have been observed to be contributing to inconsistencies in healthcare service utilisation (Krishnaswamy et al., 2009).

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In Ghana, Aikins and Apt (2016) explained that chronic and debilitating physical and mental health conditions such as diabetes, hypertension, stroke and depression have become a major public health challenge for the elderly. Researchers have identified that the elderly have Multiple Chronic Conditions (MCCs) and experience complex challenges in their healthcare with both financial and psychosocial cost of care, and tend to have a disproportionately high need for utilisation of healthcare services compared with the general populace (Agbogidi & Azodo, 2009; Aikins & Apt, 2016; Nahed et al., 2014; Park, 2014; Sanjel, Mudbhari, Risal, & Khanal, 2012).

A study on non-communicable chronic disease afflictions of elderly Ghanaians, acknowledged that 45% of the study participants experienced oral health problems, 33% was diagnosed as hypertensive, 14% had arthritis, 7% reported having diabetes, 6% had cardiovascular conditions and almost 5% received medication for stroke (Ayernor, 2012). They explained that the major health conditions afflicting elderly persons in Accra for which they sought healthcare services, were arthritis, hypertension, diabetes mellitus and cardiovascular accident (Ayernor, 2012). With the increasing occurrence of chronic illnesses, the health system in Ghana is less ready to meet the healthcare needs of the elderly persons with little infrastructure and few specialised personnel for the elderly population (Fonta, Nonvignon, Aikins, Nwosu, & Aryeetey, 2017).

Khamis and Njau (2014) identified that improving quality of healthcare services in public hospitals in the low income nations is a key requirement to increase utilisation and sustainability of healthcare services in the populace. The observations of some researchers were that, the driving force towards a successful business service is the delivery of quality service (Chakraborty & Majumdar, 2011). Marjoua and Bozic (2012) stated that to deliver the highest standard of healthcare, and to implement complex procedures, the magnitude and ubiquity of quality healthcare challenges in United States of America (USA) are frequently accredited to problems such as overuse, underuse and misuse of resources.

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In India, it was found that the quality of healthcare services was poor (Chakraborty & Majumdar, 2011). Kitapci, Akdogan, and Dortyol (2014) suggested that, competition has an important place for the improvement of quality healthcare and client satisfaction in the utilisation of healthcare services. Kitapci et al. (2014) further mentioned that, in a situation where there is no competition, for instance, when demand exceeds the supply, health facilities offer their clients substandard healthcare services because of the idea that the clients have no other substitutes and the clients would accept the existing healthcare services completely (Kitapci et al., 2014).

Hospitals can attain client satisfaction by providing quality healthcare services, having clients' expectations and unceasing improvement in the healthcare service (Chakraborty & Majumdar, 2011; Zineldin, 2006). Büyüközkan, Çifçi, and Güleryüz (2011) identified that the quality of healthcare services is important, because human beings' health is a subject that is crucial, and it is important to provide healthcare services that meet or surpass the clients' expectations. In addition, Büyüközkan et al. (2011) explained that services comprise inseparability, intangibility and heterogenity, making it very difficult to evaluate the quality of the service. To achieve quality healthcare services, three constructs were propsosed, namely: nursing performance, physicians' performance and operational quality (Chahal, 2000; Chakraborty & Majumdar, 2011).

If the healthcare service institutions were smiliar to other service institutions, a client would choose his/her own doctor among many who offer health care services that are different in terms of medical technical quality. However, the reality is far different in healthcare service institutions (Büyüközkan et al., 2011; Lee, Bunda, & Kim, 2000). In addition, the physician choice is regularly made and not by the clients themselves; but rather through referral from the client's primary physician, from their hospitals and or from their friends or relations. Lee et al. (2000) explained that service recipients'

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perceptions of healthcare services are valuable for improving quality of healthcare services (Büyüközkan et al., 2011).

In Ghana, most studies conducted on the elderly were mainly on determinants of utilisation of healthcare services (Saeed et al., 2013; Saeed, Oduro, Ebenezer, & Zhao, 2012; Saeed et al., 2016). Other studies on utilisation were focused on access to free maternal delivery, utilisation of an affordable medical facility and assessment of the community's use of Community-based Health Planning and Services (CHPS) (Esena & Benneh, 2015; Esena & Sappor, 2013; Wood & Esena, 2013).

Studies on the quality of healthcare services in Ghana were focused on the general populace and beneficiaries of National Health Insurance Scheme (Abuosi & Atinga, 2013; Atinga, 2012; Atinga, Abekah-Nkrumah, & Domfeh, 2011; Turkson, 2009). This study assessed the quality of healthcare utilised by the elderly patients at the Korle-Bu Teaching Hospital in Accra.

1.1. Problem Statement

There is an increased need for utilisation of healthcare services by the elderly due to the rise in their population leading to elderly related diseases (Agbogidi & Azodo, 2009). Many elderly people continue to experience increased levels of ill health involving their body and psychological alterations, which may influence their eyesight, hearing distance, remembrance, motor sensory skills, movement and balance (Department of South Australia, 2009).

The United Nations suggests that population ageing will present a range of challenges for the global community; major challenges hinge on income security, health status and the gendered nature of problems associated with ageing (Aikins & Apt, 2016; United Nations, 2015). Additionally, population ageing poses challenges to the well-being of the elderly

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persons, because the elderly have more health well-being and long-term requirements than younger persons (Bloom et al., 2015; Lubenow et al., 2016).

In Ghana, the most common chronic diseases among the elderly are cardiovascular illnesses, diabetes, cancers, hypertension, respiratory illness and arthritis (Ayernor, 2012; Fonta et al., 2017). The 2012 and 2013 annual reports of the Korle-Bu Teaching Hospital (KBTH) in Accra showed a decrease in the Out-Patient Department (OPD) attendance of the elderly (Korle-Bu Teaching Hospital (KBTH), 2016). There was a decline of about 20% in the number of elderly patients who attended the OPDs for the first time in 2013. The elderly patients who reported for review also showed a decline of 14%. Six out of seven selected OPDs with normally high attendance rates also revealed a decrease in attendance from 2015 to 2016. The medical OPD showed a decline of 48%, whereas the surgical OPD showed a decline of 12%, the Genito-Urinary (GU) OPD showed a 20% decline, the Polyclinic attendances decreased by 7%, the Ophthalmology OPD attendance declined by 18%, the Cardio Thoracic Unit (CTU) showed a decline in attendance of 1%, and in the case of the Diabetic Clinic, there was an increase of about 1% in the attendance of the elderly (KBTH, 2016). The KBTH experienced a yearly decline in the OPD attendance from 2012 to 2016. In 2012, KBTH OPD recorded 454,938 attendances. In 2013, the OPD recorded 391, 896; in 2015, KBTH OPD recorded 380,698 and in 2016, the OPD recorded 353,069 attendances (Korle-Bu Teaching Hospital (KBTH), 2016).

At the Greater Accra Regional Hospital, a yearly decrease of 6% in OPD attendance from 2015 to 2016 was recorded (Ghana Health Service, 2016). Similarly, at the La General Hospital, there was a decrease of 3% in the elderly attending OPD from 2015 to 2016 (Ghana Health Service, 2016). Lehnert et al. (2011) noted that such decreases in healthcare utilisation could be attributed to challenges associated with the healthcare service due to multiple chronic conditions and incurring higher medical costs by the

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elderly. Owusu-Frimpong et al. (2010) indicated that public health care users were unsatisfied with appointment visits, medical doctors' attention, and essential treatment, and this could influence their utilisation of healthcare services.

Fonta et al. (2017) observed that the quality of healthcare services delivered are not encouraging, and the variety of healthcare services are limited. Moreover, Bannerman, Offei, Acquah, and Tweneboa (2002) found that poor quality of health care services leads to loss of clients, time and material resources (Turkson, 2009). Turkson (2009) argued that Ministry of Health in Ghana recognise the need to improve the quality of healthcare services provided at the health facilities. Furthermore, Bowers and Kiefe (2002) explained that the delivery of quality healthcare services is very important because its twin significance are to relieve suffering and improve health status for individuals (Büyüközkan et al., 2011). Büyüközkan et al. (2011) explained that the healthcare service delivery sytem has undergone challenges since the 1990s.

Whether the growing number of the elderly in Ghana is accessing quality healthcare, and satisfied with the services provided at the health facilities, is a very important issue for the Ministry of Health, Chief Executive Officers (CEOs) of health institutions and Departmental Heads of hospitals.

1.2. Justification of the Study

The elderly persons provide a fortune of valuable experience through contributions to socio-cultural life, and are custodians of history (Department of South Australia, 2009). Elderly persons want to enjoy good health and continue to be energetic and self-governing as long as they are alive. Nonetheless, as they grow in age, continuing to be self-governing often rests on healthcare services being operative enough to provide care for them (Department of South Australia, 2009). Zaidi (2015) argued that the Sustainable Development Goals (SDGs) identified the value of the elderly and their development.

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Elderly persons and the ageing are stated in twelve of the seventeen SDGs, with SDG3 stating the need to “Ensure healthy lives and promote well-being for all at all ages” (Zaidi, 2015). This goal includes everyone, especially the elderly persons.

Studies have been conducted on healthcare services’ utilisation by the elderly in middle and low-income-countries (Gonzalez-Gonzalez et al., 2011; Sanjel et al., 2012). In Ghana, studies have focused on the socio-economic factors of healthcare services use among the elderly (Addo & Gyamfuah, 2014; Saeed et al., 2012). The current researcher identified some gaps in some of the studies. Although some studies might have been done, they examined socio-economic factors but did not look at the objectives in terms of the influence of predisposing, enabling and need factors on utilisation of healthcare services.

In addition, most studies conducted in Ghana were focused on the quality of life and quality of healthcare accessed by the general populace. This study sought to discover specifically the quality of healthcare accessed by the elderly and their satisfaction with the healthcare services. Furthermore, the findings of this study would aid the Korle-Bu Teaching Hospital (KBTH) to improve the quality of healthcare services for the elderly persons. It would likewise inform the hospital and the various OPD Heads to help develop appropriate healthcare services needed by the elderly at the units.

Moreover, provision of quality healthcare services would improve and would, in turn, increase the utilisation of health care services by the elderly at the various units. In addition, the findings would inform policy makers on policies concerning the utilisation and quality of healthcare services by the elderly. The findings would facilitate the passage of the ageing bill into law in Ghana.

The gaps identified in the existing literature were the motivation for the current study. The findings of this study would contribute to knowledge and update existing knowledge of utilisation and quality of healthcare services provided at the hospitals.

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1.3. Reflexivity

Reflexivity is when the researcher is conscious of their values, biases and experiences that are brought to bear on a qualitative study. Usually, the author makes this clear in writing. In this study, the researcher was conscious of her values and experiences in the medical field. Her background as a nurse did not have any effect on the study. She stopped practising curative nursing in 2001, which meant that her professional background did not have any influence on the discussion of the topic. This minimised biases (Esena, 2017).

The researcher was neutral in her body language, appearance and clothing. Her attire was simple so as not to influence the participants. She ensured that her attitude and emotions did not affect the data collection. The participants were provided privacy with an informal atmosphere. The participants were familiar with the environment, which made them relaxed and comfortable. The participants were addressed by their rightful titles, such as Mister and Madam to make them feel at ease.

1.4. Research Questions

1. What is the association between predisposing, enabling and need factors on utilisation of healthcare by the elderly attending the Korle-Bu Teaching Hospital?
2. What is the level of quality of healthcare accessed by the elderly at the Korle-Bu Teaching Hospital?
3. What is the perception of satisfaction with healthcare services accessed by the elderly attending the Korle-Bu Teaching Hospital?

1.5. Objectives of the Study

The objectives of the study have been grouped into general and specific as follows.

1.5.1. General Objective

The general objective of this study was to assess the quality of healthcare among the elderly patients utilising Korle-Bu Teaching Hospital, Accra.

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1.5.2. Specific Objectives

The specific objectives of this study were to:

1. Assess the association between predisposing, enabling and need factors on utilisation of healthcare services by the elderly attending the Korle-Bu Teaching Hospital.
2. Describe the level of quality of healthcare accessed by the elderly utilising the Korle-Bu Teaching Hospital.
3. Explore the perception of satisfaction with healthcare accessed by the elderly utilising the Korle-Bu Teaching Hospital.

1.6. Outline of the Thesis

The thesis was organised into eight chapters. Chapter one presents the introduction to the study by discussing the background to the study, the problem statement, justification of the study, research questions, objectives of the study and reflexivity. Chapter two introduces the conceptual frameworks that guided the study. It also focuses on the literature review on predisposing, enabling and need factors associated with utilisation of healthcare services. The chapter also presents a review of literature on the quality of healthcare services and satisfaction with healthcare services. The third chapter presents the theoretical perspective of the study, which is based on the Health Belief Model.

Chapter four presents discussion of the philosophical assumption underlying the study. This is followed by the research methodology. The theoretical definition and justification for the choice of research methods are also presented. This chapter also shows the study design, study area, study variables, study population, sample size, sampling method, data collection method, and data analysis among others. Chapter five presents on the results of the quantitative study. Chapter six presents the results of the qualitative study. The seventh chapter presents the discussion of the empirical findings of both the quantitative and

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qualitative studies. The eighth chapter is where the summary, conclusions and recommendations in relation to the study findings are presented. The next chapter presents the literature review of the study.

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CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter presents the conceptual framework that guided the study and a review of related literature on the topic under study. Literature recommends that models and theories serve as a framework for the design and evaluation of healthcare interventions (Luca & Suggs, 2013). Conceptual frameworks that relate to behaviours of man, utilisation of healthcare services and the quality of healthcare at the hospital were chosen to guide the study. These were Donabedian, Servqual, Andersen, and Mechanic conceptual frameworks. Quality healthcare services is discussed under Donabedian and Servqual, and utilisation of healthcare services are discussed under Andersen and Mechanic. The chapter is divided into five sections. The chapter is organised as: Quality of healthcare services; Utilisation of healthcare services; Satisfaction of healthcare services, and a summary of the chapter. The themes have been presented in the ensuing sections.

2.1. Quality of Healthcare Services

This section presents a review of studies on quality of healthcare services accessed by clients at the healthcare facility. The definition of quality differs depending on whose perspective and within what context it is measured (Mosadeghrad, 2013). Mosadeghrad (2013, p. 203) defined quality healthcare as “consistently delighting the patient by providing efficacious, effective and efficient healthcare services according to the latest clinical guidelines and standards, which meet the patient’s needs and satisfies providers”.

Peltzer and Phaswana-Mafuya (2012) investigated the elderly persons’ perceptions of quality healthcare in public and private hospitals in South Africa. The findings revealed that, the lowest rated quality of healthcare were the OPD healthcare services and prompt attention. The researchers indicated that the overall responsiveness was rated higher in

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private hospitals than the public hospitals. A similar study on quality healthcare services that was conducted in private and public hospitals in Jordan revealed that clients' perception on quality of healthcare services was also higher at the private hospitals than the public hospitals (Alrubaiee & Alkaa'ida, 2011).

The above studies observed that the quality of healthcare was higher at the private hospitals than the public hospitals. In addition, the analysts did not mention the age group of the participants which makes the findings vague. The current researcher assessed the quality of healthcare among the elderly at a public hospital.

Atinga (2012), evaluated clients' perception of quality of healthcare services in Ghana. The researcher explained that the clients' perception of quality of healthcare was rated low. A similar study in Ghana revealed that waiting time, healthcare and the hospital environs determined the clients' satisfaction with quality of healthcare. Another study was conducted to find out patients' opinion on quality of health care provision in rural Ghana (Turkson, 2009). The findings showed that 90% of the patients were satisfied with the quality of care provided when they utilised the facility. The patients declared that the poor attitude of some of the health personnel, expensive cost of healthcare services and long waiting time were disadvantageous to effective provision of quality health care (Turkson, 2009). The use of the mixed-methods approach and focus group discussions held in 13 communities made the study findings credible.

The above studies were the perceptions of patients who utilised the health facility. The present study focused on the elderly patients' perceptions of quality of healthcare.

A study in Malaysia in a non-governmental health care facility revealed a reasonably negative quality of healthcare services (Muhammad & Cyril de Run, 2010). The participants of the study were skewed towards persons in the younger population, which

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may not be the representation of broader Malaysian age groups. The present study focused on participants utilising governmental health care services who were elderly persons of 60 years and above. A different study conducted in India, revealed that clients' perception of quality of healthcare services was the interpersonal aspects of healthcare provided such as the health personnel responses (Padma, Rajendran, & Lokachari, 2010).

From the studies reviewed, it was recognised that assessment of the quality of healthcare services by patients was basically from their viewpoint. The views of quality of healthcare services by patients are mostly the functional aspect of quality and not the technical aspect of quality, which were not often seen by the patients. Majority of the reviewed studies were on all age groups which limited the perception of the elderly of the quality of healthcare services.

2.1.1. Servqual Model

Client satisfaction and the quality services are treated as functions of their views and expectations (Ahuja, Mahlawat, & Masood, 2011). Ahuja et al. (2011) explained that quality and satisfaction are a clients' delight. The Service Quality as Servqual model was developed by Parasuraman, Ziethaml and Berry to measure quality service (Parasuraman, Zeithaml, & Berry, 1985). Servqual measures the gap between clients' expectations of quality and their views of actual delivery of service (Ahuja et al., 2011). Servqual has five constructs in quality service, namely tangibles, reliability, responsiveness, assurance and empathy (Ahuja et al., 2011; Parasuraman et al., 1985). Peprah and Atarah (2014) identify that tangible in Servqual model describes the appearance of the health personnel, the physical facilities and the equipment. Reliability is the ability to achieve the service correctly and consistently. Responsiveness is the willingness to assist clients and offer quick service. Assurance in Servqual model is the knowledge and courteousness of personnel and their ability to imbibe confidence, and be trusted. Empathy is to offer personalised care to clients. The Donabedian model is described below.

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2.1.2. Donabedian Model

Donabedian outlined quality healthcare as structure, process and outcomes (Donabedian, 1990; Ibn El Haj, Lamrini, & Rais, 2013). Ibn El Haj et al. (2013) argued that the Donabedian model was universally accepted and used in research as a quality standard. The Donabedian model has three components: structure, process and outcome (Donabedian, 1969, 1990). Ibn El Haj et al. (2013) specified that each component in the Donabedian model has an influence on the next component (Donabedian, 1990). These have been explained below.

Structure

The first component of the Donabedian (1969) model of quality of healthcare is structure, which refers to health personnel who provide healthcare at the health facility. For instance, health personnel comprise doctors, nurses, pharmacists and other allied health personnel. The other elements in the structure component are the hospital organisations, medicines and investigations (Donabedian, 1990; Ibn El Haj et al., 2013; McCance, 2003; Nuckols, Escarce, & Asch, 2013). Patients diagnosed of chronic disease(s) would utilise the hospital because of the structure stated in the Donabedian model. The hospital has qualified consultants, specialist doctors, qualified nurses, and other qualified health personnel. A hospital has medical equipment that can be used for the patients without the patients utilising other smaller facilities for medical procedures.

Process

The second component is the process. The process in the Donabedian model denotes the activities that take place in the care of patients in the form of interpersonal and technical aspects (Donabedian, 1990; Ibn El Haj et al., 2013; McCance, 2003; Nuckols et al., 2013). The interpersonal aspect involves the interpersonal relationship between the health personnel and the patients. This comprises the rules and standards regulating human beings' interactions to ethical standards specific to health, and to the patients' expectations

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(Ibn El Haj et al., 2013; Nuckols et al., 2013). For instance, health personnel's attitude, providing information, taking decisions and asking about their preferences, getting to know the patient, being attentive, spending time with the client, psychological needs and physical support, are the interactions the health personnel have with the patients (Ibn El Haj et al., 2013; McCance, 2003). Ibn El Haj et al. (2013) explained that the interpersonal aspect is very important because it also effects the technical performance (Donabedian, 1990).

The technical aspects involve the medical science and technology to maximise the balance between the benefits and the risks. The technical aspects comprise: the timeliness and exactness of medical diagnosis and the appropriate treatment administered to the patients (Donabedian, 1990; Ibn El Haj et al., 2013; McCance, 2003; Nuckols et al., 2013).

Ibn El Haj et al. (2013) mentioned that, in evaluating the quality of healthcare services in a health facility, it is important to distinguish between appropriateness and skill. Appropriateness refers to the correct actions that were taken, the skill, and how the actions were provided. The procedures that the patients encounter when receiving healthcare services at the health facility gives the opportunity for them to evaluate the quality of healthcare they accessed (Donabedian, 1990).

Outcome

Quality of healthcare is assessed by the outcome. The outcome indicates whether the goals of the healthcare were attained (Ibn El Haj et al., 2013). McCance (2003) indicated that the outcomes originated from the process of caring, and involved the patient having a feeling of well-being and satisfaction.

Although the Donabedian model is widely used by investigators researching into the quality of healthcare services, some gaps have been identified (Berwick & Fox, 2016). Berwick and Fox (2016) argued that the weaknesses of the Donabedian model are:

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emphasis on "patient-centeredness", which is a shift of power that is fundamental to the definition and quest of quality. Moreover, in this new information era, Donabedian could not foresee the profound influence on both risks and potential for healthcare. Furthermore, Donabedian could only foretaste that we cannot attain excellence without observing and acting upon healthcare as a system. Figure 2.1 shows the conceptual framework.

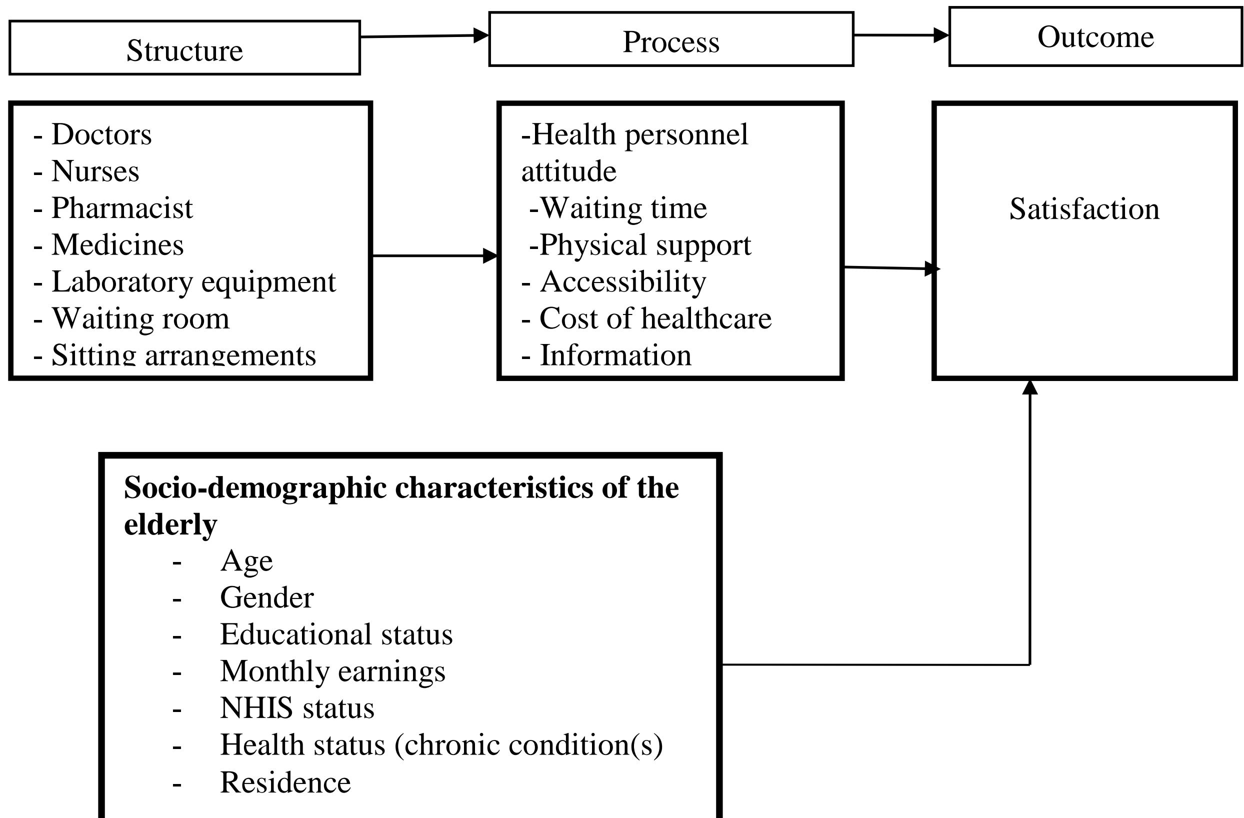

Figure 2.1: Donabedian Conceptual Framework on Quality of Healthcare.
Source: Adapted from Donabedian (1990).

The present researcher discussed two models for measuring quality of healthcare, namely: Servqual and Donabedian models. Servqual explained five constructs and Donabedian applied three constructs. The Donabedian model has constructs that capture elements in the researcher's present study. Based on these, the Donabedian model (1990) was adapted for this study.

2.2. Utilisation of Healthcare Services

This subsection presents conceptual frameworks on utilisation of healthcare services; behavioural health services utilisation model (Andersen, 1995) and General Theory of Help Seeking by Mechanic (Mechanic, 1978).

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The healthcare service utilisation depends on the services provided at the facility by the health professionals. The health professionals consist of the doctors (consultants, specialists, and general practitioners), nurses, physiotherapists, dieticians, radiologists and laboratory technicians; and the services are those provided by the health professionals at the health facility. The levels of healthcare services provided are primary, secondary and tertiary care. Primary healthcare stops diseases from occurring, secondary healthcare is returning the patient to his or her previous state of health and the tertiary healthcare offers stability for long term permanent diseases such as diabetes mellitus, and cardiovascular diseases. Resources available at the health facility include the size and distribution of both workforce and capital, as well as availability of equipment (Andersen, 1995; Andersen & Newman, 2005; Rebhan, 2008). Andersen throws more light on the researcher's study. Utilisation of healthcare services occurs when the healthcare services are accessible, cost of healthcare services is affordable, there is availability of information, health personnel attitudes are courteous, reasonable time is spent at the facility and physical support are provided to patients. Based on these, Andersen's (1995), framework of health service utilisation was adapted for this study. These three factors [predisposing, enabling and need] lead to utilisation of healthcare services (Andersen, 1995; Andersen & Newman, 2005, Rebhan, 2008).

2.2.1. General Theory of Help Seeking

Another model that influences utilisation of healthcare services is the General Theory of Help Seeking proposed by Mechanic (Mechanic, 1978). Mechanic specified ten points that determine illness and behaviour, namely: the salience of deviant signs and symptoms; the individual's perception of symptoms'; the disruption of the individual's daily life as caused by the illness; the frequency of symptoms and their persistence; the individual's knowledge and cultural assumptions of the illness; the denial of the illness as a result of basic needs of

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the individual; whether or not the response to the illness disrupts needs; the individual alternative interpretations of symptoms; and treatment availability via location, treatment resources, and the economic and psychological cost (Mechanic, 1978; Rebhan, 2008).

2.2.2. Andersen Behavioural Model

The Andersen behavioural health service utilisation model demonstrates the issues that lead to utilisation of health care services (Andersen, 1995). Andersen (1995) looked at the population characteristics in the form of predisposing factors, enabling factors and need factors and their effect on people's desire to utilise healthcare services: These have been explained below.

Predisposing factors are also referred to as socio-demographic characteristics of the patient that influence their utilisation of healthcare services. These include age, sex, education, marital and occupational statuses. The patients are more or less likely to utilise the healthcare services based on their age, sex, marital status, education, occupation and religion. Additionally, the patients will utilise the healthcare services based on their values regarding health and diseases, their attitude to healthcare services and understanding of illnesses. The patients who consider healthcare services to be expedient for treatment will possibly use the healthcare services (Andersen, 1995; Andersen & Newman, 2005; Rebhan, 2008). For instance, the elderly persons who are 60 years and above, have some form of education, knowledge of the diseases and could observe that a hospital was the useful place to seek treatment.

The enabling factors are also referred to as family resources and include assets found within the family (Andersen, 1995; Andersen & Newman, 2005). Family assets include income, health insurance, a regular source of care, and location of residence. When the patients have enough resources such as income, health insurance, access to the healthcare

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facility and availability of persons to assist them, they are more likely to utilise the healthcare services (Andersen, 1995; Andersen & Newman, 2005). In relation to the Ghanaian context, majority of the elderly are beneficiaries of National Health Insurance (NHI), some are on a pension scheme and some have persons to accompany them to the health facility. These will enable them to utilise the healthcare services at a hospital.

The need factors [chronic disease(s)] relate to how the patient assesses their own overall health and functional state, as well as how they understand signs of the disease, discomfort, and uncertainties about their health and whether or not they see their problems to be significant enough to pursue professional assistance (Andersen, 1995; Andersen & Newman, 2005). The patient will utilise the healthcare services if they perceive the healthcare need as being important. The elderly in the context of Ghana are diagnosed with at least one chronic disease. Patients having one or more chronic diseases made them liable to use healthcare services. The characteristics of the elderly participants in the current study led them to utilise the healthcare services at the KBTH.

2.3. Factors Associated with Utilisation of Healthcare Services

This section presents an analysis of studies on factors influencing utilisation of healthcare services. A study conducted in Nigeria, to discover the basis of healthcare services utilisation among the elderly revealed that the elderly encountered some difficulties with healthcare utilisation (Chukwudi, Uyilewhoma, Ebi, Kalu, & Iyamba, 2015). These difficulties were long waiting times, prescribed drugs not being available and health workers not being friendly (Chukwudi et al., 2015). In support of the above study, Addo and Gyamfuah (2014) assessed the socio-economic variables related to utilisation of healthcare services among older people at Yamoransa in Ghana. Their findings indicated that there were substantial cases of maltreatment of patients by health service providers and the long hours spent by the elderly at the healthcare centres prevented their subsequent utilisation of healthcare services.

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Communication problems influence utilisation of healthcare services by the elderly. Fukahori et al. (2011), examined the opinions of the elderly Japanese who had stayed in Thailand for a long period on the utilisation of healthcare services. These researchers found that the Japanese elderly were unable to speak either English or Thai, which led to difficulties in communication with accessing healthcare services. A mixed-method approach suited their study to illuminate the challenges in learning the Thai or English Language instead of just using the quantitative method. The study used a small sample size of 68 participants, which was a weakness because the findings may not be generalised.

A study of Korean immigrants in the USA utilising formal healthcare showed that they encountered at least one difficulty (Jang, 2016). Approximately 15% of the elderly who had received medical care in the USA reported that they had encountered more than two impediments, which were the language barrier and having no insurance, and language barrier and cultural differences. In addition to the two combinations, other impediments reported were difficulty in making appointments, long waiting times, complex referral process and poor medical apparatus at doctors' offices or other medical facilities (Jang, 2016). Jang (2016), used the mixed method approach, which enriched the findings by bringing the quantitative and qualitative findings together to enlighten the reality of the situation.

Yang et al. (2015) compared the association between accessibility of healthcare facilities and medical care utilisation among the older population in Taiwan. They observed that the elderly persons who spent long hours at the healthcare services were less likely to utilise other services, as compared with the elderly who spent about 30 minutes to access the health care facility. The researchers established that the elderly, who encountered more challenges with accessing healthcare services, had less OPD visits. The researchers used a

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large sample size of 4,249, which was a good representation of the study population. On examining how the elderly utilised primary health care services in Brazil, Lubenow et al. (2016), found that the elderly encountered various impediments, including limited offer, inadequate number of professionals, and extreme waiting time.

In a different study, Allerton and Emerson (2012), analysed the extent to which individuals with prolonged health conditions or deficiencies in Great Britain experienced difficulties with utilisation of healthcare services. The study showed that persons with chronic medical conditions or impairments reported difficulties in utilising healthcare services. In addition, the elderly in each condition or impairment category had considerably higher odds of having a variety of challenges, including discrimination from health care workers; unskilled or unsupportive workers; absence of communication; non-existence of information; difficulties with transport; trouble getting into the hospital structures; trouble using the health facilities; and absence of self-confidence or nervousness. These analysts concluded that the elderly persons with prolonged health conditions or deficiencies experienced challenges utilising healthcare services. The researchers concluded that these difficulties were likely to worsen disability and might increase the probability of developing additional preventable health conditions. The analysts used a large sample size of 19,951 households, which was laudable but an additional approach, for instance, interviewing the participants, would have revealed significant information.

Chang et al. (2013) evaluated the use and arrangements of community health care services by the elderly in long-term healthcare facilities in Taiwan. These researchers found that there were shortages of trained healthcare staff, which led to impediments with utilisation of healthcare services by the elderly. Lai and Surood (2013) assessed the association between service challenges and health status of the elderly in South Asian immigrants at Calgary in Canada. The researchers identified that the elderly experienced four main kinds

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of challenges - cultural mismatch, individual attitude, managerial problems and circumstantial impediments. The weakness of the study was the method used in collecting the data. The researchers used telephone interviews, which may produce deceitful response that could affect the findings.

Douthit, Kiu, Dwolatzky, and Biswas (2015) identified some problems associated with healthcare utilisation among rural people in the USA. The findings showed that constraints in their predisposing and enabling characteristics were compounded by scarceness of services, absence of skilled medical doctors, inadequate public transportation, and poor broadband internet services. In addition, the difficulties identified were the inability to entice and keep skilled medical doctors, and to sustain healthcare services at par with urban counterparts. Gimm, Blodgett, and Zanwar (2016) assessed the underlying reasons for delayed healthcare in the USA. The researchers found that enabling factors, and problems getting to a doctor's consulting room were the common rationale for delayed utilisation of healthcare service. These analysts concluded that there was deficiency in affordability for medical care, dental care, and prescription medications.

In a different study, Guy Jr. (2015) examined the monetary problem, yearly out-of-pocket payment problem, access to healthcare and preventive healthcare utilisation among individuals between 18 and 64 years diagnosed of breast cancer in America. The researchers identified that out-of-pocket payment were problems among grown-ups with a medical history of breast cancer. Higher out-of-pocket problem was related to not being capable to acquire essential therapeutic care, deferring needed medical care and lower breast cancer screening among women. The weakness of this study was the use of household reported information, which could be biased.

Hoeck, Frabcois, Van der Heyden, and Van Hal (2011) analysed the association between healthcare utilisation of older folks in Belgium in terms of their contacts with General Practitioners (GP) or Specialists and their socioeconomic status, using the socio-

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behavioural model by Andersen (Andersen, 1995). The analysts found that the initial differences in contact with a GP and a Specialist between the different socioeconomic categories were not significant amongst the older folks. The findings pointed to a possible relation with the Belgian social and health policy. The study used a large sample size of 4,494 elderly persons, which would be generalised and the use of Andersen (1995) healthcare service utilisation model also enriched the study. In a different study, the analysts compared OPD service utilisation of the primary health care (PHC) and private healthcare facilities. The clients in the PHC were older and had fewer severe disease conditions. The findings indicated that the elderly beneficiaries of co-payment waivers were most likely to utilise the OPD healthcare services at the PHC (Kim et al., 2018). The investigators did not consider the heterogeneity of the private healthcare facilities, and this could be a possible limitation to the study.

Macinko, Andrade, Souza Junior, and Lima-Costa (2018) investigated primary healthcare service utilisation amongst elderly Brazilians. They observed that private health plan beneficiaries mostly utilised the specialist healthcare services, while the elderly using public system were most likely to visit a general physician. The researchers identified that problems with primary healthcare was negatively associated with all kinds of healthcare service utilisation. A mixed-methods approach would have enriched the findings by explaining, in detail, the problems associated with utilisation of health care services. Sanjel et al. (2012) analysed the use of healthcare services among the older populace of Dhulikel Municipality in Nepal. The study showed that 68% sought medical personnel in the last one year, 8% went to the emergency department, 53% utilised the diagnostic services and 13% went on admission. The findings may not be generalised since the elderly participants were selected only from Dhulikel Municipality. Additionally, mixed methods could have provided a more comprehensive and valid information on utilisation of healthcare services by the elderly population.

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2.3.1. Predisposing Factors Associated with Utilisation of Healthcare Services

This segment presents a review on studies on age, gender and education of the elderly persons that were associated with healthcare service utilisation.

Age

Rodrigues et al. (2009) investigated the utilisation of health care services by ageing folks diagnosed with chronic illnesses in 41 towns of the south and northeast provinces of Brazil. The prevalence of therapeutic appointment in the previous six months was 45% in the south province and 46% in northeast province. Rodrigues et al. (2009) revealed that, in the two provinces, utilisation of healthcare services was higher for ageing persons below the age of 80 years, existing in the catchment zones of primary healthcare programmes. In addition, it was only in the south province that older persons with disability had a higher prevalence of therapeutic appointments (Rodrigues et al., 2009).

Hren, Prevolnik, and Srakar (2015) revealed that the elderly in Slovenia often sought OPD services and hospitalisation. The study found that age was the factor that influenced the use of healthcare services. The researchers used retirement in Europe (SHARE), a data base of Wave 4 of the survey of health, and several indicators of healthcare service utilisation to boost their data.

In a comparative study, Sharma, Sharma, Wojtowycz, Wang, and Gajra (2016) assessed elderly (65 years and older) and a younger group (40-64 years) with advanced cancer in utilising palliative care and acute care services in the USA. The researchers examined emergency room visits, hospital admissions, and Intensive Care Unit admissions. The analysts found that older patients were referred to palliative care services, and spent a longer duration at the center (Sharma et al., 2016). Interviewing the key informants would have added more information and would have thrown more light on the rationale for elderly persons at the various healthcare units being referred earlier than the younger cancer patients.

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A study on patterns of OPD and in-patient healthcare utilisation by the elderly in China, found that the OPD utilisation rate was significantly associated with age (Lixia, Liu, Zhang, & Wu, 2015). The findings indicated that the elderly group, 60 years and above used the OPD more than the younger group 50 to 59 years. In the case of hospitalisation, the utilisation rate peaked at the 70-79 years group and declined in the 80 plus year group. These analysts compared the elderly attending the OPD and those on admission using multivariable logistic regression to analyse the association between socioeconomic factors and healthcare service utilisation: this made the study significant. Vegda et al. (2009) measured the elderly persons utilisation of healthcare services, number of medical diseases, and usage of medication at the Primary Health Care (PHC) Centre in Canada and determined age- and gender-related utilisation trends. The study specified that the elderly (80-84, and 85 and above age-groups) had significantly more family physician visits, emergency room (ER) visits, diagnostic days, health conditions, and medicines. These analysts used a comprehensive chart review of clients aged 65 years and above to prevent sampling bias, which was a strength. The weakness of the study was that the participants were from a very high socioeconomic background from a research based primary health care service, which limited generalisation.

Education

Awoke et al. (2017) identified that elderly Ghanaian clients who had advanced schooling and were wealthy were associated with the utilisation of private OPD services while public OPD services were associated with the elderly who were beneficiaries of the National Health Insurance Scheme (NHIS). The weakness in this study was the recall and self-reported information from the elderly participants, which could be biased. The researchers could have employed a qualitative study to explore the choice of health facilities by these elderly people. A similar study in Malaysia observed that the elderly with education were associated with healthcare services utilisation (Yunus et al., 2017). These investigators

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enriched their study by adapting the Health Belief Model (Yunus et al., 2017). Teng et al. (2013) looked at the possible causes of emergency medical use by older clients in Taiwan. They showed that schooling was the factor influencing emergency healthcare use by the older populace. The weakness of this study was the bias towards elderly survivors at the time of the final study and not using the emergency department and data on deaths.

Gender

Saeed, Xicang, Yawson, Nguah, and Nsowah-Nuamah (2015) revealed that Ghanaian female elderly persons had increased rates of health care utilisation and increased rates of OPD services. This research was noteworthy because it used five different models to evaluate each response from the participants. The paper indicated the national picture of healthcare service utilisation among the Ghanaian elderly. Gong, Hal, and Xiaojun (2016) assessed factors predicting healthcare service usage among the elderly in China. Their findings revealed that physical examinations of the elderly and in-patient care increased significantly when the elderly's health deteriorated. Additionally, they found that elderly females had less possibilities to utilise in-patient care.

Hamiduzzaman, De Bellis, Kalaitzidis, and Abigail (2016) ascertained factors that had an influence on elderly females' utilisation of healthcare service in rural Bangladesh. They identified deprivation of adequate education, social and economic dependency on males and family, inadequate and ineffectual institutional healthcare arrangements, and misappropriation of funds as factors. Although this study was narrowed towards elderly women in Bangladesh, its findings indicated various issues (childhood, early adulthood and institutional factors) that could be linked to elderly women in other poor countries, including Ghana.

Palacios-Cena et al. (2013) described the prevalence of General Practitioner (GP) visits and in-patient service according to gender, to identify factors that were independently

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related to a higher utilisation of healthcare services among the older persons. The findings were that females had higher prevalence of general practitioner visits than males, while males had significantly higher prevalence of hospitalization than females. Moreover, the study showed that the number of GPs' visits among females and males significantly increased from the year 2001 to 2009. The study confirmed findings on the elderly utilising healthcare services due to their gender (Palacios-Cena et al., 2013).

2.3.2. Enabling Factors [family resources] Associated with Utilisation of Healthcare Services

This section presents analysis of studies on enabling factors that enhance utilisation.

Some scientists analysed the differences in health care service use according to family earnings amongst the elderly who were 75 years or older in Japan (Hamada et al., 2018). Findings from the study specified that elderly participants of both sexes with low earnings were most likely to be functionally reliant on healthcare services. The findings indicated that, lower earnings were related to less general practitioner visits. The scientists stated that elderly persons with lower earnings had fewer consultations with general practitioners but there was an upsurge usage of in-patient services (Hamada et al., 2018). The study involved the OPD services and in-patient services, which enabled them to compare the two healthcare services and the use of incidence rate ratio analysis, unadjusted and adjusted for other factors, which made the findings significant.

Comans et al. (2016) reported on ill-health and expenditure on utilisation of healthcare services. These researchers identified that intermediate or high level of ill-health increased the possibility of re-hospitalisation with higher cost of healthcare for about six months compared with low ill-health. The study revealed that increasing ill-health levels increases the price of healthcare services. In addition, they specified that an ill-health index could be used to quantify extra cost of healthcare services. These analysts indicated that staying in the house was most likely to reduce social and health care costs.

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Agrawal, Shrotriya, Singh, and Danish (2015) assessed healthcare service utilisation by geriatric population in India. These analysts found that 41% of the elderly fell sick in the last six months and that 37% did not seek healthcare services because of cost of healthcare. The researchers could have employed a mixed methods approach in order to aid further explanations of the quantitative findings. Gonzalez-Gonzalez et al. (2011) examined the elderly's expenditures on healthcare. The researchers focused on acute morbidity, ambulatory care and hospitalisation in Mexico. These researchers argued that the elderly spent a total amount of $308.90 on healthcare expenses. In addition, they spent more money on hospitalisation than any other age group.

Bähler, Huber, Brüngger, and Reich (2015) assessed the association between multiple chronic conditions (MCCs), healthcare use and costs among the elderly living in a Swiss community. The findings revealed that the total costs were about 5.5 times higher for elderly clients with MCCs; hence, each additional chronic condition was associated with an increase of about three consultations and increased costs of 33%. These analysts observed that MCCs were associated with a significantly higher healthcare utilisation cost. The findings of this study were subject to selection bias as the data of persons who were beneficiaries of private insurance were not accounted for in the analysis. Having MCCs could be a challenge for the elderly with utilisation of healthcare services.

Lu, Lee, Chen, and Hsiao (2015) presented an overview of healthcare utilisation (out-patient, in-patient and emergency visits), total medical expenses, and medicine consumption between the older persons and the general populace in Taiwan. The findings revealed that the annual use of out-patient visits by older persons doubled compared with that of the general populace. About one-in-five of the older persons was admitted to hospital, and went to Emergency Department (ED) at least once yearly. It was found that only 8% and 14% of the general community were admitted to health facilities and went to

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Emergency Room (ER) respectively at least once yearly. The older persons had greater medication intake and were more possibly consumers of poly-pharmacy than the general populace. The study noted that the annual medical expenditure tripled compared with that of the general populace (older person US$ 1846.00 vs. US$ 554.00). The study used the NHI research data base that did not have any variable on the health behaviour and functional status of the elderly persons, which limited the findings.

Jacobs, de Groot, and Antunes (2016) analysed the financial access to healthcare by the elderly in Cambodia. The analysis indicated that there were catastrophic and impoverishing medical care expenses and indebtedness experienced by the elderly. In addition, the elderly suffered monetary hardship due to medical-health related expenditures. These analysts found that the elderly spent 10% extra per month on healthcare than persons below sixty years of age. The investigators used a routine survey that was not designed for collecting data related to health financing. This limited the findings of the study. In another study, Brinda, Kowal, Attermann, and Enemark (2015) measured the determinants of healthcare service utilisation, out-of-pocket payment and catastrophic health expenses among the elderly in India. They found that the out-of-pocket healthcare expenses were high among the elderly with disabilities and those who had lower earnings. Additionally, it was observed that the elderly diagnosed with diabetes, hypertension, chronic pulmonary disease, heart disease and tuberculosis had an increased number of health visits and, consequently, increased out-of-pocket health expenditure. They stated that the prevalence of catastrophic health expenditure among the elderly in India was 7%.

In addition, the study showed that the elderly men and individuals with chronic diseases had a higher possibility of catastrophic health expenses. These findings on catastrophic health expenditures could be a challenge for the elderly with respect to utilising healthcare

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services. The researchers used a large sample size of 2414 of older Indian populace and detailed social and medical data. The investigators also used health financing profiles to enrich their data. The findings could be generalised.

Trivedi, Moloo, and Mor (2010) observed that when OPD healthcare fees increased, elderly clients declined to utilise OPD health care. These researchers investigated increased OPD healthcare service fees among the elderly persons. The findings revealed that the effects of increased OPD service fees were very high amongst older persons living in regions of lower salary, lower education, and among older persons who were diagnosed of myocardial infarction, diabetes mellitus and hypertension. These researchers concluded that raising healthcare cost sharing for OPD care among older clients might have adverse medical consequences and might upsurge entire expenditure on healthcare services (Trivedi et al., 2010). The study had limitations due to the use of a small number of case plans that prevented the researchers from evaluating the effects of increasing costs.

The above studies showed that the elderly experienced more healthcare costs compared with the other younger age groups (below 60 years) in terms of hospitalisation and annual medical expenditures. Moreover, it was revealed that the cost of healthcare services influenced utilisation (Brinda et al., 2015; Jacobs et al., 2016; Trivedi et al., 2010). This could be a challenge associated with utilisation of healthcare services.

The resources available to the elderly influence the type of health facility to utilise. For example, Saeed et al. (2016) assessed the effects of socioeconomic issues on the use of public and private health care facilities by the elderly in Ghana. They found that health status of Ghanaian elderly persons was a robust factor of the category of health care facilities utilised. The findings indicated that elderly Ghanaian males with a high salary chose private health care services, while those who were in academia, were a beneficiary of health insurance, and the elderly who self-rated their well-being as very poor, poor or

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average, chose public health care services. It was observed that males working on their own and those with informal work chose other healthcare services outside the official public health care facility. On the other hand, females with primary and secondary training chose private healthcare services. Meanwhile, females with health insurance, those in middle and upper category salary quintiles or those with self-rated poor and average health status chose the public healthcare services. The weakness of the study was the design used. The use of cross-sectional design prevented the use of cause and effect examination.

Goodridge, Hawranik, Duncan, and Turner (2012) determined socio-economic differences in accessing homecare and the utilisation of healthcare in Canada. The authors found that the most frequently used indicator was income. The authors noted that some studies used extra complex composite ecological indicators of socioeconomic status. The review showed that there were general agreements that utilisation of home health services favoured persons with greater economic disadvantage. Homecare services are not well established in Ghana. The present researcher researched into hospital utilisation and applied sequential mixed methods design using explanatory design to get more information on what the elderly stated in the quantitative results. Qualitative data was used to explore significant quantitative findings with a few elderly clients to explain the quantitative findings.

Hsu and Hsu (2016) examined OPD service patterns by the older persons in Taiwan under the National Health Insurance Programme. The findings indicated that 11% accounted for physician and OPD visits. The study observed that the three most frequent diagnoses (hypertension, diabetes and acute upper respiratory infections) made them visit the physician. The strength of the study was the very large number of participants (1,239,836), which revealed the real picture of the elderly patients attending the OPD services. However, the limitation was that they did not include in-patients. Lin, Hwang, Chen,

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Chen, and Hwang (2011) analysed and described the patterns of OPD care use by the elderly within the Taiwanese National Health Insurance (NHI) programme. The elderly (97%) who were NHI beneficiaries used OPD services. The women recipients had higher average yearly OPD visits than men beneficiaries. The researchers used Taiwan nationwide computerised database that consisted of all medical practice: this was a strength of the study. Nevertheless, the investigators should have further employed in-depth interviews to reveal the reasons for the low turnout of men.

Blackwell, Martinez, Gentleman, Sanmartin, and Berthelot (2009) studied issues associated with utilising a physician and hospital healthcare services amongst grownups in Canada and United States of America. The researchers focused on socio-economic status, thus making use of the enabling factors in Andersen's frame work of healthcare utilisation. The study revealed that a number of measures of socio-economic status (i.e., having a consistent medical physician, schooling and, in the USA, salary and insurance coverage) were associated with physician visitation in both Canada and USA (Blackwell et al., 2009). The weakness of the study was that data collected from the elderly participants were not verified by any direct measures that may be subject to recall bias.

From the studies reviewed, it was observed that the elderly persons spent more money on healthcare than any age group. Furthermore, the elderly persons with an additional chronic condition(s) were associated with an increased healthcare cost(s). Monetary problems continued to persist as the main issue affecting utilisation of healthcare services by the elderly persons. The current study assessed the economic resources in the family associated with utilisation of healthcare services.

2.3.3. Need Factors Associated with Utilisation of Healthcare Services

This section presents the relevant literature in relation to need factors associated with utilisation of healthcare services.

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Chronic and debilitating physical and mental health conditions such as diabetes, hypertension, stroke and depression have become a major public health challenge in Ghana (United Nations, 2015). Available evidence suggests that the prevalence rates of these NCDs are higher among the elderly persons. This group experiences higher rates of all forms of disability (physical, emotional and intellectual) (United Nations, 2015). The United Nations noted that the elderly were more likely to live with multiple chronic conditions. Chronic illness posed complex challenges for the elderly, family members and care givers, including financial and psychosocial cost of care (United Nations, 2015). Researchers suggested that Ghanaian families struggled to provide care to chronically ill relatives and especially elderly individuals who might live with MCCs in addition to the complex problems of ageing (United Nations, 2015).

Debpuur, Welaga, Wak, and Hodgson (2010) investigated health care use among the older populace in the Kassena-Nankana District in Ghana. The researchers indicated that health care use was significantly associated with self-rated bad health, history of chronic disease, age and occupation. The above study looked at the predictive factors associated with healthcare at the district level.

Park (2014) found that a higher number of Korean elderly females than elderly males indicated having hypertension, arthritis or heart diseases, while a greater number of elderly males stated having cancer or lung illness. The researcher observed that the elderly persons with chronic illnesses were two times more likely to report self-rated poor health than the elderly persons with no chronic conditions. The researcher examined disease condition and healthcare service utilisation by the elderly persons.

Volkert et al. (2018) identified factors associated with healthcare service utilisation by older persons with mental health illness. The researchers indicated that, generally, 7% of older persons and 11% of those older persons with mental health problems used the

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services due to mental ailments in the previous 12 months. These researchers focused mainly on elderly persons with mental illness. The present study focused on other non-communicable diseases such as diabetes, hypertension, stroke, heart attacks, arthritis, chronic obstructive pulmonary disease, asthma and other NCDs.

Wandera, Kwagala, and Ntozi (2015) investigated determinants associated with the elderly persons' utilisation of health care services in Uganda. The study showed that persons who had non-communicable diseases (NCDs) such as heart disease, hypertension or diabetes were likely to utilise health care services during the past thirty days. The above situation in the context of Uganda indicated that the need factors (self-reported NCDs, severity of disease and movement) and enabling factors (household wealth status and receiving salaries) were significant bases of utilisation of health care services among older persons. The strength of this study was that it used a sample size of 1,602 elderly persons, which was nationally representative. However, the limitation of the study was self-reported measures of NCDs, which was not based on diagnostic tests.

Gómez-Olivé, Thorogood, Clark, Kahn, and Tollman (2013) measured self-reported chronic conditions and chronic diseases associated with healthcare use in a rural South African elderly population. The study showed that 45% of the elderly utilised healthcare in the past twelve months. Meanwhile, the elderly persons who stated higher utilisation of the healthcare services stated lower levels of functioning and quality of life. The researchers observed that self-reported chronic health conditions had a high prevalence and were associated with high levels of healthcare utilisation. The researchers did not investigate to find out the reasons for the low turn-out of the 45% accessing healthcare in the past 12 months: another limitation was self-ported chronic conditions.

Irwan et al. (2016) determined self-care circumstances and factors related to health-seeking behaviours of the elderly residing in Indonesia. The study found that the elderly

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did not regularly take advantage of the Monthly Health Check-ups (MHCs) available, whereas the elderly with comorbidity were the ones who utilised the healthcare services more frequently. The researchers should have used a mixed methods approach to find reasons why the elderly did not attend the free healthcare services and MHCs. In addition, they focused less on healthcare status of the elderly and the healthcare services. Hence, the current study sought to find out the quality associated with the utilisation of healthcare services, which could be an impediment to the elderly in utilising healthcare services by using a mixed methods approach specifically, sequential explanatory method.

Liu, Tian, and Yao (2012) determined the effects of various health profiles on health care services use and expenses; and assessed factors associated with utilisation by controlling the health profiles of the older persons in Taiwan. The study identified that four health profiles of the older persons on the possibility of utilisation and expenses on healthcare services were significant. The study compared the Relative Healthy group and the High Comorbidity group who inclined to use additional OPD services. While the functional impairment group had relatively high likelihoods of requiring health care support, the frail group had higher expenses.

Liu (2014) reviewed articles to classify four profiles amongst persons in Taiwan: High Comorbidity (HC), Functional Impairment (FI), Frail (FR) and Relatively Healthy (RH). Liu (2014) identified, that the FR group consisted of the elderly, female gender and living with one's family. The HC group tended to use OPD services more compared with those in the RH group. The FI group had a relatively high likelihood of requiring help, and the FR group had higher health care expenses (Liu, 2014). The strength of Liu's (2014) study was in the usage of multiple healthcare indicators. The above two studies showed that the elderly had the need for healthcare services since they exhibited one or more health problems. The present study sought to find out the quality as assessed by the elderly

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persons so as to help increase utilisation of healthcare services at the health facilities.

Peltzer et al. (2014), described healthcare utilisation among the elderly and measured the association between hospitalisation and OPD service utilisation and client characteristics in six LMICs, including Ghana. They observed that health facilities were the most often used service for older males and females. They identified that the elderly with two or more chronic conditions were three times as likely to be hospitalised and two times as likely to use OPDs compared with the elderly persons who stated no chronic conditions. The most common reason for Ghanaian elderly persons utilising OPDs was generalised pain. In using six different countries, the study showed various trends associated with utilisation of healthcare services by the elderly. Additionally, the use of a standardised questionnaire was a strength for this study.

Studies have examined the type of healthcare services the elderly patronise and their purposes for utilising the health facility (Alkhawaldeh et al., 2014; Bommireddy et al., 2016; Gruneir et al., 2016; Ocansey et al., 2013). Alkhawaldeh et al. (2014) analysed patterns and factors related to Primary Healthcare Centre (PHC) service utilisation among the elderly in Jordan. The findings showed that PHC services were associated with prolonged illness and perceived general health status. The researchers concluded that the robust predictor of PHC service use was prolonged illness. The researchers employed self-report on healthcare services usage and history of chronic diseases.

A study on the use of ophthalmology care services amongst the older populace from a peri-urban community in Ghana showed that 35.8% had never had an eye investigation in their lives (Ocansey et al., 2013). The study identified that 81% of individuals with eye problems needed eye care. Additionally, the study found that 77% reported eye difficulties before the study, but only 51% had used the eye services in the past five years (Ocansey et al., 2013). An interview would have provided the reasons for their actions. A study at a

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countryside in Nigeria showed that 19% of adults utilised an orthodox health unit and 24% performed visual acuity. The investigators observed that persons above age 70 years, educated, dwelling near an eye unit, diagnosed with hypertension, diabetes and ocular diseases were more likely to utilise the eye care services (Olusanya, Ashaye, Owoaje, Baiyeroju, & Ajayi, 2016). In a different study, access to eye test of the elderly in the low, middle and high income countries were examined by some investigators who identified that only 18% of the elderly had their eye test performed in the previous year (Vela et al., 2012). They identified that the eye test for the elderly persons in the previous years ranged from 10% to 37%. The investigators observed that issues that were associated with eye testing in the previous year were self-reported bad eye disease, diagnosed with diabetes mellitus and putting on spectacles (Vela et al., 2012). The current study included Ophthalmology (eye) OPD to identify the quality associated with healthcare utilisation by the elderly persons at the unit.

Bommireddy et al. (2016) investigated the utilisation patterns of oral healthcare and challenges among the rural elderly populace in Guntur District in India. The study showed significant differences between the use of dental services by the elderly, and past experiences of dental problems. This study was narrowed down to a specialised area (oral health). Additionally, the scientists did not search for data regarding visits to the dental clinics in the past years to provide a reliable estimation of utilisation patterns. The current study involved seven different OPDs with different conditions related to the elderly, and investigated the quality associated with utilisation of healthcare services.

van Oostrom et al. (2014) assessed the association between MCCs and the use of the General Practitioners (GP) among elderly Dutch clients. The analysts identified that the elderly clients with MCCs had an average of 183 contacts per year. Additionally, the study indicated that MCCs were associated with more contacts, prescriptions and referrals for

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specialised care. The strength of the van Oostrom et al. (2014) study was the use of a very large sample size of 32,583, which was a nationally representative sample, in addition to the use of data on diagnosed chronic conditions of Dutch clients. Dent et al. (2016) studied healthcare service utilisation in South Australia and showed that fragility prevalence was 25%, and the female (29%) prevalence was higher than males (21%). The study established that the frail elderly persons were likely to have consulted health workers, including: GP, physiotherapists, mental health providers, community nurses and dieticians. The elderly were also most probable to visit a health expert before a problem began, journeyed to the urban area for a professional appointment, and to be admitted in the past 12 months. The researchers found that the frail elderly were more likely to use several healthcare facilities, yet, often had unmet needs in their healthcare. The authors further showed the various healthcare services utilised by the frail elderly persons and stated their unmet needs.

Gruneir et al. (2016) determined MCC and its relationship with a wide range of healthcare services such as physician visits, emergency department visits, and nursing home admissions in Canada. They found that utilisation of healthcare services increased with the number of comorbid conditions. The authors used comorbidities with various variables under the healthcare services. The study also noted the fact that comorbidity in the elderly increased health services utilisation (Gruneir et al., 2016).

In another study, Shin et al. (2012) assessed predictors of depressive symptoms associated with the use of both medical care and preventive care services in elderly Koreans. The variables of healthcare utilisation were hospitalisation, OPD use and having a basic medical check-up. The study observed that, being a woman, being single, and having less education, with lesser household salary, physically immobile and lesser weight, were related to depressive symptoms. Furthermore, the presence of chronic diseases and limited

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physical function showed a significant association with depressive symptoms. The researchers stated that depressive symptoms were related to increased odds of in-patient service and OPD visits. The study focused on one disease condition of the elderly (depression) associated with healthcare utilisation. The strength of the study was the use of a huge representative sample size (2226 males and 2911 females) and an extensive range of demographic characteristics, chronic conditions, physical functions and health behaviours. The present study focused on healthcare service utilisation by the elderly at various OPDs.

The current researcher looked at two models on utilisation of healthcare services that suited the study. These were Mechanic's general theory of help seeking and Andersen's framework of health service behaviour. Mechanic's general theory dwelt on what influences illness and how an individual person reacts to illness. In the case of Andersen's health care service utilisation model, it included the health personnel and the various healthcare services provided for the patients. The services provided may influence the patients to utilise the healthcare facility. Additionally, the concepts in Andersen's model are centered on the population characteristics that may lead to the utilisation of healthcare services. A critical look at the two models showed that Andersen's model went beyond Mechanic's theory by including healthcare services and health personnel.

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Andersen's conceptual framework is shown in figure 2.2.

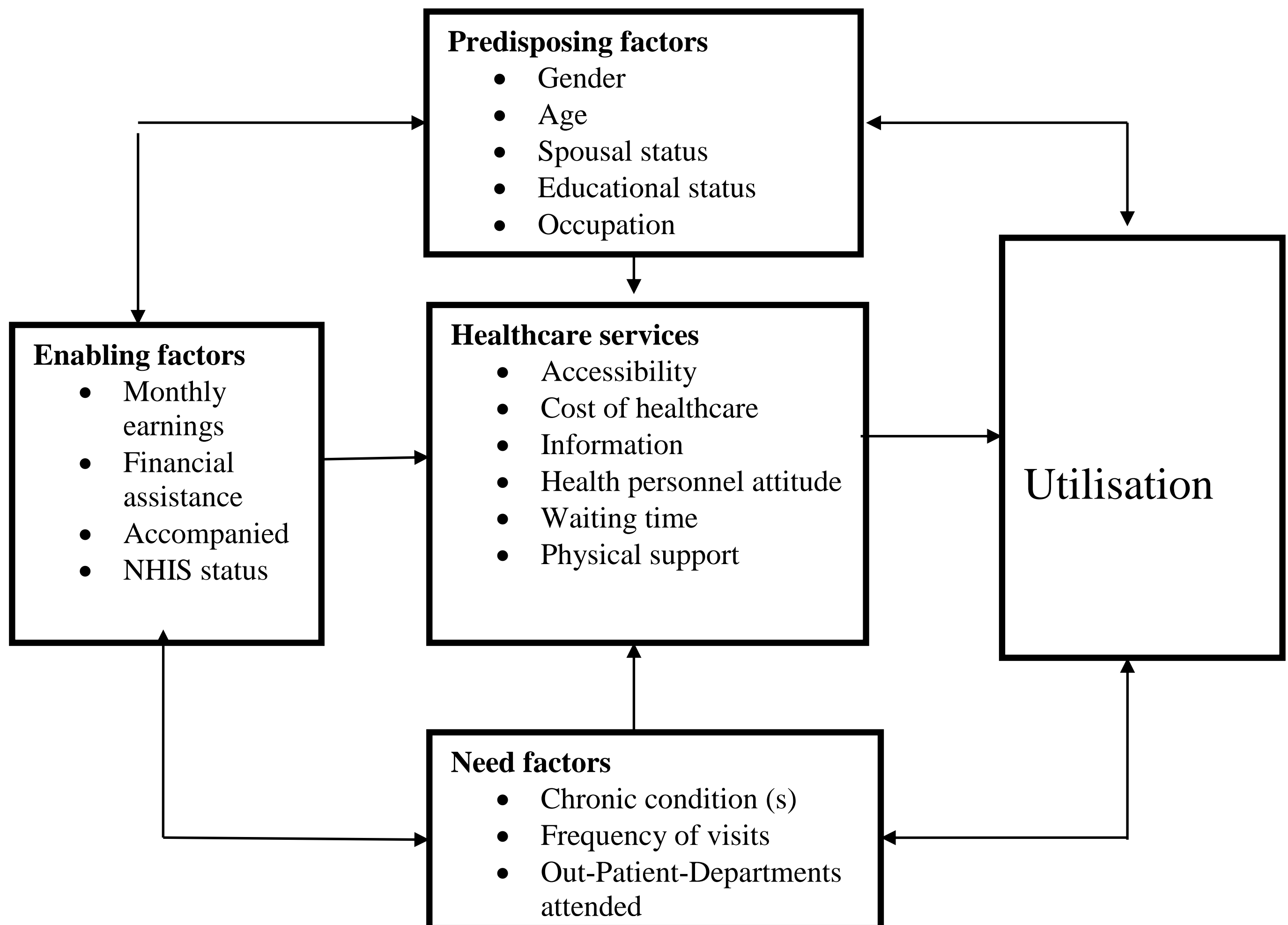

Figure 2.2: Conceptual Framework of Healthcare Service Utilisation.
Source: Adapted from (Andersen, 1995).

2.4. Satisfaction with Healthcare Services

This section presents an analysis of satisfaction with healthcare services utilised by the elderly. Aragon and Gesell (2003) defined patient satisfaction "as the degree of congruency between a patient's expectations of ideal care and his/her perception of the real care that he/she receives" (Ahmad & ud Din, 2010. p.95).

Client satisfaction is important, and is used as a gauge for determining the degree of excellence in healthcare (Ebrahim & Issa, 2015). In addition, client satisfaction is a vital factor of health care service assessment and an extra gauge for quality of health care services (Hassali et al., 2014). Client satisfaction is generally, used as a healthcare quality metric (Fenton, Jerant, Bertakis, & Franks, 2012). The association between clients'

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satisfaction and healthcare utilisation, expenses, and outcomes still remains poorly defined (Fenton et al., 2012). The idea of satisfaction in life has gained an upward significance for the older person whose life expectation has been increased, to a level that life satisfaction has become an important goal in the healthcare field (Mollaoğlu, Tuncay, & Fertelli, 2010).

Nahed et al. (2014) examined satisfaction with healthcare services among the elderly in Dubai at a primary healthcare unit, and observed the following: the elderly not having an adequate income were more likely to be high users of healthcare services as matched with persons having adequate savings. The researchers identified that the elderly with Ischemic Heart Disease (IHD) and the elderly with osteoporosis were significantly more likely to be high users of healthcare services compared with the elderly without these illnesses. The analysts established that lower users of health care services were more significantly satisfied than high users. These researchers concluded that the significant factors of being less satisfied with healthcare services delivered were being uneducated or with an educational level less than secondary school.

Stankunas, Avery, Lindert, Edwards, and Di Rosa (2016) evaluated socioeconomic disparities in the utilisation, accessibility and satisfaction with healthcare services among the elderly from seven European urban communities. The study identified that satisfaction led to utilisation of healthcare service. The study findings were credible due to the use of data from seven European countries, however, the information was gathered in the year 2009. The information might be outmoded and might not reflect the current situation since these seven countries were High Income Countries (HICs). Furthermore, the findings might be limited to the urban communities since data were collected from the urban communities.

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In a different study, the analysts sought to find the general satisfaction with healthcare services among Ghanaians (Fenny, Enemark, Asante, & Hansen, 2014) . The findings indicated that the main predictors of the general satisfaction were the consultation process, waiting time, and friendliness of the staff (Fenny et al., 2014). Peprah and Atarah (2014) examined patient satisfaction in Ghana and observed that, patients' satisfaction were influenced by the attitudes of nurses, provision of quick services, attractiveness and cleanliness of the hospital.

Mohamed et al. (2015) examined patients' satisfaction with Primary Health Care (PHC) services in Saudi Arabia, and observed that clients' level of satisfaction was 82%. The rationale for the satisfaction included technical proficiencies of the health personnel and the neatness of the facilities. The researchers indicated that the dissatisfaction with the PHC was mainly an unsuitable building (Mohamed et al., 2015).

A study examined issues influencing client satisfaction with services at the OPD unit of a tertiary healthcare facility in Nigeria (Adamu & Oche, 2014). The participants were between the ages of 15 and 70 years. The findings of the study revealed that the participants voiced satisfaction with cleanliness of the clinic surroundings. About 49% of the clients indicated satisfaction with communiqué with the clinicians while 52% voiced satisfaction with the clarifications on their illnesses. The findings showed that the overall level of satisfaction with healthcare services at the OPD was 52%. However, participants voiced their dissatisfaction with the following activities at the OPD: registration time, condition of the consulting room and the waiting time to see the doctor (Adamu & Oche, 2014). The sample size of 100 was too small for participants who ranged from age 15 years to 70 years. The elderly participants (55 years and above) were only 6%. Therefore, the findings of this study may not be the true representation of the elderly.

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2.5. Summary of the Chapter

The studies reviewed showed that much work had been done on factors associated with (the predisposing, enabling and need factors) utilisation of healthcare services by the elderly patients in United States of America, Europe and Asia. A few studies were conducted in Africa including Ghana. Studies revealed that education, cost of healthcare services and being diagnosed of chronic conditions influenced utilisation of healthcare services.

The case of quality and satisfaction with healthcare assessed by elderly patients were few. Most studies focused on the general populace. The studies showed that patients' satisfaction with healthcare services were based on their functional judgement such as the neatness of the hospital environs and not the technical aspect. Reviewed studies on satisfaction also revealed that patients' satisfaction was influenced by the staff attitude, services provided and the cleanliness of the environs.

It is worth noting that, the majority of the studies on quality and satisfaction were on the general populace which may not be the true representation of the elderly patients. The next chapter presents the theoretical perspective of the study.

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CHAPTER THREE

THEORETICAL PERSPECTIVES OF THE STUDY

3.0. Introduction

This chapter presents the theoretical perspective of the study. Theoretical frameworks aid in arranging the thought and design, intervention and analysis of a study (Montano & Kasprzyk, 2015). Three theories have been discussed: Theory of Reasoned Action, Theory of Planned Behaviour and Health Belief Model, thus, the concepts that were applied to explain the findings of this study. This chapter is organised as: Theory of Reason Action, Theory of Planned Behaviour, Health Belief Model and synchronisation of concepts.

3.1. Theory of Reasoned Action

The Theory of Reasoned Action (TRA) explains volitional behaviours of an individual (Hale, Householder, & Greene, 2002; Taylor et al., 2006). The theory assumes that the significant direct factor of behaviour is behavioral intentions (Ajzen, 2012; Montano & Kasprzyk, 2015). Direct causes of an individual's behaviour intentions are their attitude towards accomplishing the behaviour and their subjective norm related to the behaviour (Ajzen, 2012; Montano & Kasprzyk, 2015; Taylor et al., 2006). The Theory of Reasoned Action centres on cognitive issues, including, beliefs and values that determine motivation. This is referred to as the behaviour intention of an individual (Ajzen, 2012; Montano & Kasprzyk, 2015). Researchers that adapted TRA focused on the intentions of health personnel in execution of their duties (Nilsen, Roback, Broström, & Ellström, 2012; Roberto, Krieger, Katz, Goei, & Jain, 2011). Ajzen (2012) observed some limitations in TRA, namely: that the theory was particularly valuable when relating to behaviours that were mostly under volitional control.

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3.2. Theory of Planned Behaviour

The Theory of Planned Behaviour is the most commonly cited and dominant model for guessing human social behaviour (Ajzen, 2011). Ajzen and Driver (1990) argued that the basic concepts of the Theory of Planned Behaviour are the intention to execute a behaviour; subjective norm; attitude concerning the behaviour; different types of beliefs; and perceived behaviour control that constitute the foundation for behaviour. A central feature in the Theory of Planned Behaviour is the intention of an individual to execute a certain behaviour. Intentions are supposed to cover the motivational issues that effect a behaviour; they are signs of how individuals are eager to try in order to execute the behaviour. For instance, the stronger the intention to be involved in a behaviour, the possibility of the performance of the behaviour (Ajzen, 1991).

3.3. Health Belief Model

The Health Belief Model was propounded by a group of social psychologists, who used it to predict patients' reactions to symptoms and obedience with prescribed medical regimes (Janz & Becker, 1984; Kirscht, 1974). The Health Belief Model has continued to be an organised framework for explaining and predicting health and medical care (Janz & Becker, 1984; Orji, Vassileva, & Mandryk, 2012).

The HBM was used to assess the behaviour of persons who were not suffering from any disabling disease (Rosenstock, 1974b; Taylor et al., 2006). The model was oriented to the avoidance of sicknesses while it did not overlook the potential role of barriers to accepted healthcare services (Becker & Maiman, 1980; Rosenstock, 1974b). It also attempted to clarify the behaviour of persons who were being charged little or nothing for the healthcare service (Rosenstock, 1974b).

The Health Belief Model hypothesised that the behaviour of persons depends mainly upon the worth placed by individuals on a particular goal and the individual estimating the

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likelihood that a given action would achieve that goal (Becker & Maiman, 1980; Maiman & Becker, 1974). When these variables were theorised in the background of health related behaviour, the responses found were: firstly, they wished to evade sickness; and secondly, the conviction that a particular health treatment would stop the disease (Janz & Becker, 1984). Rosenstock et al. (1988) identified that HBM consisted of six constructs which were: perceived susceptibility; perceived seriousness; perceived benefits; perceived barriers; and cues to actions (Rosenstock, 1974a; Rosenstock et al., 1988). The key concepts of the model have been explained below.

Perceived Susceptibility

The perceived susceptibility construct suggests that, people vary widely in their feelings of personal vulnerability to an illness. Hence, this dimension refers to the people’s subjective perception of risk of contracting a disease condition (Becker & Maiman, 1980; Orji et al., 2012; Rosenstock, 1974b; Rosenstock et al., 1988). At one extreme end, there might be an individual who refutes any likelihood of contracting any disease. In a more reasonable position is the individual who may acknowledge the “statistical” possibility of a disease incidence, but a possibility that it is not likely to happen (Becker & Maiman, 1980; Rosenstock, 1974b). Lastly, an individual may demonstrate a feeling that he/she is at a real risk of getting the illness. From the above, susceptibility refers to the subjective risk of contracting a disease condition (Becker & Maiman, 1980; Rosenstock, 1974b).

Perceived Seriousness

The second construct is the feeling regarding the seriousness of contracting a disease (or of leaving it untreated) likewise varied from individual to individual (Janz & Becker, 1984; Orji et al., 2012; Rosenstock, 1974b). This construct includes the evaluations of both the medical or clinical consequences (e.g., death, disability and pain) and possible social consequences (e.g., effects of the conditions on work, family and social relations),

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which are perceived severity by people (Janz & Becker, 1984; Rosenstock, 1974b). The degree of seriousness may be attributed to the degree of emotional stimulation created by the thought of a disease condition as well as by the types of problems that a given health condition would create (Orji et al., 2012; Robbins, 1962). Individuals would therefore, be worried with such questions as whether a disease could lead to death, or decrease their physical or mental functioning for a long period of time, or disable them permanently (Janz & Becker, 1984; Rosenstock, 1974b). However, the perceived seriousness of a disease condition may, for a particular person, include a wider and more complex implication of the effects of the illness on their job, on their family, life, and their social relations (Janz & Becker, 1984; Rosenstock, 1974b). The combination of perceived susceptibility and severity is to have a robust cognitive constituent partly dependent on knowledge (Janz & Becker, 1984; Rosenstock, 1974b).

Perceived Benefits

The third construct is perceived benefits. This is the acceptance of personal susceptibility to a condition, and believe that it is serious enough to produce a force that could lead to a behaviour (Janz & Becker, 1984; Orji et al., 2012; Rosenstock, 1974b). Rosenstock, (1974b) did not define the particular course of action that is likely to be taken; this depends upon beliefs regarding the effectiveness of the various actions available to reduce the disease threat (Rosenstock, 1974b; Rosenstock et al., 1988). The potential negative aspects of a particular health action may act as impediments to undertaking the recommended behaviour (Rosenstock, 1974b; Rosenstock et al., 1988). A kind of cost-benefit analysis is thought to occur where the individual weighs the action's effectiveness against perceptions that may be expensive and dangerous (Janz & Becker, 1984; Rosenstock, 1974b). The perception of the action could be pain, difficulty, upsetting, inconvenient, time consuming and others (Rosenstock, 1974b; Rosenstock et al., 1988).

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Rosenstock (1974b) noted that the combined levels of susceptibility and severity provided the energy or force to act and the perception of benefits (less barriers) provided a preferred path of action for people.

Perceived Barriers

The fourth construct is perceived barriers. It is believed that the acceptance of one's susceptibility to an illness to be very serious is thought to provide a force that could lead to an action, but not defining the specific course of action that is likely to be taken (Becker & Maiman, 1980; Rosenstock, 1974b; Rosenstock et al., 1988). The course that the action takes is thought to be influenced by beliefs concerning the relative effectiveness of no obtainable alternatives in reducing the risk of illness to which people feel endangered (Rosenstock, 1974b; Rosenstock et al., 1988). The individual's behaviour is consequently thought to depend on how useful the person believed the various alternatives to be (Rosenstock, 1974b; Rosenstock et al., 1988). They must be available to the individual at least one action that is subjectively possible. An alternative is likely to be seen as helpful if it related subjectively to the decrease of one's susceptibility or seriousness of this disease condition (Rosenstock, 1974b; Rosenstock et al., 1988). In addition, the individual's beliefs about the availability and effectiveness of several courses of action, and not the objective evidences about the effectiveness of action, determine what course the individual would take. The individual's beliefs in this area are definitely influenced by the norms and pressures of their social groups (Rosenstock, 1974b; Rosenstock et al., 1988).

Cues to Action

Cues to action is the fifth construct and it indicates that a person may believe that a set of actions would be effective in decreasing the risk of disease condition, but at the same time see that action itself as being inconvenient, expensive, unpleasant, painful or upsetting (Rosenstock, 1974b; Rosenstock et al., 1988). These negative features of health action

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served as impediments to any action and provoked contradictory reasons of avoidance (Rosenstock, 1974b; Rosenstock et al., 1988). Numerous resolutions of the conflict were thought to be promising; if the willingness to act were high and the negative features were seen by the elderly as comparatively fragile (Rosenstock, 1974b; Rosenstock et al., 1988). This suggest how encouragements from other people, such as reminders by the health personnel, advice from persons, mass media and diseases of relative or a friend could help individuals take up an action. The action in question was possible to be taken if, on the other hand, the readiness to act were low while the potential negative features were seen by the elderly as robust, the negative aspects operated as barriers to inhibit action (Rosenstock, 1974b; Rosenstock et al., 1988). Where the readiness to act was great and the barriers to the action were likewise great, the conflict was thought to be more challenging to resolve by the individual (Rosenstock, 1974b; Rosenstock et al., 1988). If individual were highly focused on acting to decrease the likelihood or impact of the perceived health danger, then the individual would similarly be extremely encouraged to avoid this action since they see it as extremely unpleasant or even painful (Rosenstock, 1974b; Rosenstock et al., 1988).

Self –Efficacy

The sixth construct is self-efficacy. Self-efficacy describes a person’s confidence in their ability to implement the actions in question (Orji et al., 2012; Tarkang & Zotor, 2015). Orji et al. (2012) argued that, usually, the individual may not want to do something new unless the individual considers that she or he can perform it. If the individual believes that the new behaviour is beneficial but does not consider being competent in performing it, the probabilities are that the individual may not attempt the new behaviour (Orji et al., 2012; Tarkang & Zotor, 2015).

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Satisfaction

Satisfaction is achieved when individuals have confidence to perform an action. That is to undergo any medical procedures that would decrease or stop any disease condition(s). Satisfaction is then attained when there is a positive change in their health. An observed stable, improved and better health leads to satisfaction with healthcare services. Figure 3.1 shows the Health Belief Model.

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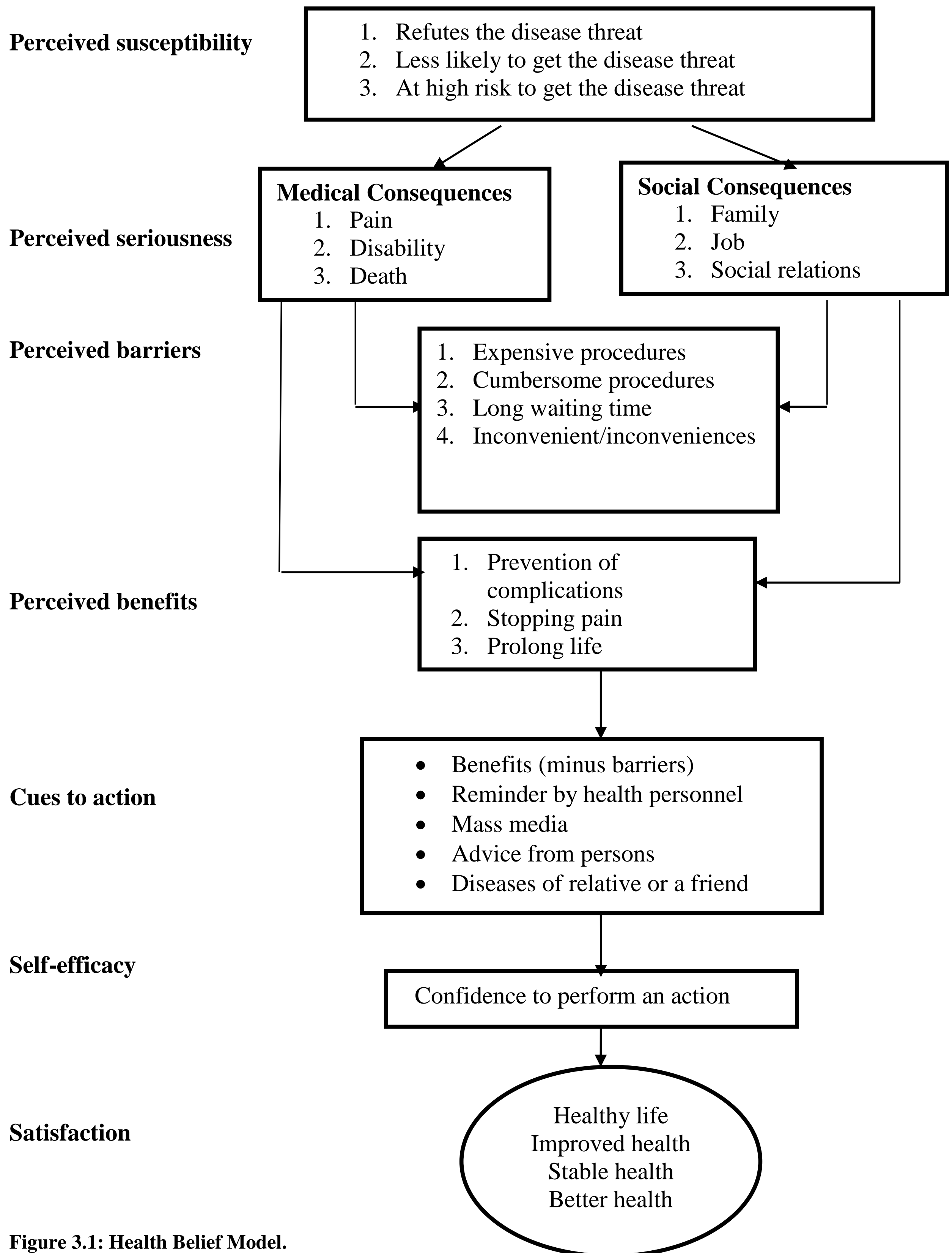

Figure 3.1: Health Belief Model.
Source: Adapted from Rosenstock et al. (1988).

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3.4. Justification for the choice of Health Belief Model

The current researcher looked at TRA, TPB and HBM. The Theory of Reasoned Action and the Theory of Planned Behaviour (TPB) emphasised how theoretical constructs focused on individual motivational issues such as performing a precise behaviour. The Theory of Reasoned Action and Theory of Planned Behavior both accept that the predictor of a behaviour is behavioural intention (Ajzen, 2002; Montano & Kasprzyk, 2015). Taylor et al. (2006) indicated that narrative and systematic reviews have revealed that TRA and TPB were limited in practical application.

A critical look at these three models showed that HBM had constructs that could capture elements in the current researcher's study. Additionally, researchers have used HBM to guide their studies, for example; cause of health care use amongst elderly persons (Yunus et al., 2017), colorectal cancer selection (Wong et al., 2013), applying Health Belief Model in prevention of HIV (Tarkang & Zotor, 2015), dental clients' brushing and flossing of teeth (Buglar, White, & Robinson, 2010). In addition, HBM has simplified health related constructs, which are very easy to adapt, apply and examine. Based on the three models discussed, the researcher chose HBM. The Health Belief Model was the theoretical perspective that guided the study.

The Health Belief Model is also limited; for instance, some issues have an effect on the health behaviours of the individual such as past experiences, cultural and socio-economic aspects that were not included in the five dimensions (Orji et al., 2012).

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3.5. Synchronisation of Concepts

This portion presents how the three key concepts in this study were synchronised.

The elderly persons first and foremost should utilise the available healthcare services. This is prompted by their predisposing, enabling and need factors. When they have utilised the healthcare services, then they can assess the quality of it using the structure and process factors. The outcome of their utilisation and assessment of the quality of care will lead to their satisfaction with the healthcare services. The above activities or processes could be explained by the theory of Health Belief Model, which shows how they seek care or accept an intervention. Figure 3.2 shows the synchronisation of the concepts.

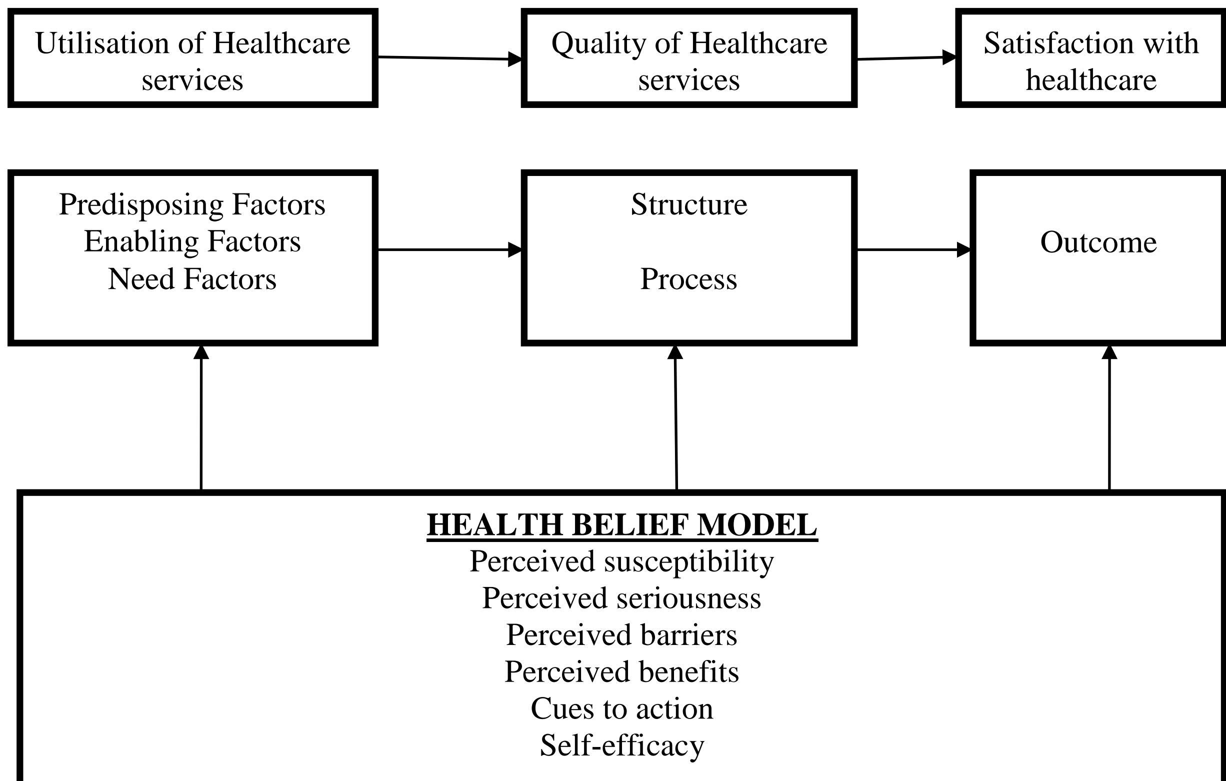

Figure 3.2: Synchronisation of Concepts.
Source: Researcher's conceptualisation.

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3.6. Summary of the Chapter

The chapter examined three theoretical models; TRA, TPB and HBM. Theory of Reasoned Action is centred on cognitive issues and TPB is centred on intentions of an individual. Health Belief Model focused on health behaviour of the individual person. The model identified six constructs namely; perceived susceptibility; perceived seriousness; perceived benefits; perceived barriers and cues to action. This model was chosen to guide the discussion of the findings of the study. The reasons were that, the six constructs related to the present study. The chapter also presented the concept of satisfaction when a person has confidence to perform an action to attain an improved health. The next chapter presents the research methods of the study.

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CHAPTER FOUR

METHODS

4.0. Introduction

This section presents the philosophical assumptions (positivist, interpretive and postmodernism), research methods and design employed to collect data on quality of healthcare among the elderly persons utilising the Korle-Bu Teaching Hospital. The section describes the study design, study area, study variables, sample size estimation procedures, sampling method, data collection method, data collection tool, data processing, data analysis, quality assurance, and ethical considerations. The chapter ends with a summary of the chapter.

4.1. Philosophical Assumptions of the Study

Quantitative or qualitative studies are centred on some fundamental assumptions about what establishes a valid research and which research methods are appropriate for a study. The theoretical perspectives that directed this study were centred on positivism, interpretivism, and postmodernism theories. These have been presented in this section. The positivists' assumption is presented below.

4.1.1. Positivism Theory

Positivist studies are the leading methods in the scientific research of the natural world (Greenhalgh & Russell, 2009). Cohen, Manion, and Morrison (2007) explained that Comte propagated the term positivism and wanted to apply the scientific paradigm, which originated from studying the natural world, to the social world (Beck, 1979). Positivism was the leading epistemological model in social science from the 1930s through to the 1960s, its principal argument being that the social world occurs externally to the researcher, and that its possessions could be measured directly through observation (Gray, 2013).

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Positivists claim that reality occurs outside to the researcher and must be examined through the rigorous process of scientific investigation (Gray, 2013). Positivism places great significance on experiment and observation, and is characterised by formal hypotheses, measurement, and drawing of inferences about an occurrence from a sample to a specified populace (Greenhalgh & Russell, 2009). Positivism is concerned with variables that hold a number of assumptions about the social world and how it should be investigated. Their assumption is that the social world can be studied using similar methods as the natural world (Kura & Sulaiman, 2012).

Positivism is logically related to pure scientific laws and grounded on evidence in order to gratify the four requirements of falsifiability, logical consistency, relative explanatory power, and survival (Lee, 1991). Lee (1991), explained that the theoretical requirements of positivism are that theories must not only conform to empirical observations but should be falsifiable. For the second requirement, theoretical propositions must be related to one another. A theory must be able to explicate or foretell competing theories (Kura & Sulaiman, 2012; Lee, 1991). Hence, a falsifiable, consistent, and explanatory theory should be able to endure through experiential investigations (Kura & Sulaiman, 2012; Levin, 1988).

Positivists believe in a steady reality that is visible and objective, which other researchers can replicate (Kura & Sulaiman, 2012; Levin, 1988). Kura and Sulaiman (2012) stated that positivists believe that a social science researcher is separated from the phenomenon being researched and research should be value-free (Levin, 1988). Charmaz and Belgrave (2007) argued that positivistic assumptions rely on ideas of a describable, predictable world that is external to the participant and from which findings would be made. Gray (2013) explained that positivism states that, reality entails of what is obtainable to the senses – that is, what can be seen, smelt, and touched. Investigations are built on scientific observation and hence, on pragmatic examination. Additionally, the natural and human

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sciences share mutual rational and methodological ideologies, dealing with facts and not with values (Gray, 2013). Furthermore, positivists methodology is focused on clarifying relationships. Positivists attempt to detect causes that impact outcomes (Creswell, 2009).

The purpose of positivist methods is to formulate laws, therefore, yielding a foundation for prediction and generalisation (Scotland, 2012). Positivists use confirmable evidence to seek direct experience and observation that involves experiential testing, random samples, controlled variables (independent, dependent and moderator) and control groups. Positivists view their methodology as value neutral, thus, the knowledge generated is value neutral (Scotland, 2012).

Positivist supporters were concerned with abstracted empiricism built on quantitative approaches, which were mostly numerical and subjected to statistical analysis (Duffy, 1987; Kura & Sulaiman, 2012). Kura and Sulaiman (2012) explained that the objectives of positivism are to measure the variables of a social occurrence through quantification. For instance, a research could be directed to measure the degree of success of a specific government policy on poverty reduction by bearing in mind whether the level of poverty upsurges or declines. The quantity differences are employed statistically to decide variations among variables and why such variations exist (Kura & Sulaiman, 2012).

Positivism is rooted in atomism, quantification, and operationalisation (Kura & Sulaiman, 2012). Atomism suggests that an occurrence is a unit separated from the entire world (experiments) with discrete elements. Quantification refers to the variables that can be expressed in terms of numbers and frequencies. In addition, it uses mathematical tools to disclose significance for depicting conclusions. Operationalisation defines social occurrences as modest behaviours and life experience (Kura & Sulaiman, 2012; Salomon, 1991; Walker, 2005). This suggests that the epistemological perspective of any research defines its instruments of data collection and analysis (Kura & Sulaiman, 2012).

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Positivism maintains that methodological processes of natural sciences are adjustable to social sciences. Social science study is value free and takes the form of causal laws when clarifying social regularities and patterns. Their methodologies range from surveys, cross-sectional, longitudinal studies and experimental (Kura & Sulaiman, 2012).

Despite its acceptance, positivism has flaws that seemingly weaken its applicability to social science research (Kura & Sulaiman, 2012). It simplifies the world into experimental situations that are hard to apply in reality (Kura & Sulaiman, 2012). For example, there is no organisation or community that is ready to be experimented on. Positivism lacks complete explanation of causes and processes of a study phenomenon, and their case research are difficult to generalise, as they are often constrained to a single unit of analysis (Kura & Sulaiman, 2012). Cicourel (1964), Kuhn (1961) and Kura and Sulaiman (2012), claim that the flaws of positivism have paved the way for a new paradigm, which proposes that all information is socially built and a product of specific historical context within which it is situated. Any social science study should attempt to comprehend the phenomena, causes, effects and values established within that social phenomenon. Whereas positivism predicts the status quo, interpretivist explains the status quo from the perspective of the actors (Greenhalgh & Russell, 2009). The interpretivist theory is presented below.

4.1.2. Interpretivist Theory

The interpretivist perspective was developed as the new paradigm to the shortcomings of positivism (Chambers, 2006). It is used, for instance, for investigations into human livelihood, well-being, poverty index and others (Chambers, 2006). Scotland (2012) identified that the ontological point of interpretivism is relativism. Relativism is the opinion that reality is subjective and varies from individual to individual. Scotland (2012) suggested that people’s realties are facilitated by their senses. Without awareness, the

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world is worthless. Reality develops when awareness involves with objects, which were previously pregnant with meaning (Scotland, 2012). Reality is independently constructed and there are various types of them. Language does not passively tag objects but vigorously forms and moulds reality (Frowe, 2001). Thus, reality is built through the interaction among language and aspects of an independent world. The interpretive epistemology is one of subjectivism, which is grounded on actual world occurrences. The world does not occur independently of our knowledge of it (Grix, 2004).

Interpretivist model and qualitative approaches frequently seek experiences, understandings and perceptions of persons to reveal reality rather than depend on numbers of statistics (Thanh & Thanh, 2015). The interpretivist model places a lot of importance on the method in which the world is socially built and understood (Blaikie, 2000). It integrates a range of philosophical views, comprising symbolic interactionism, phenomenology, ethnomethodology and hermeneutics (McEvoy & Richards, 2006). An interpretive study assumes that truth is socially built and the investigator becomes the vehicle by which this truth is discovered (Cavana, Delahaye, & Sekaran, 2001; Walsham, 1995a, 1995b).

McEvoy and Richards (2006) opined that the research, which approaches usually relate to interpretivist are small-scale but concentrated, and the relations between the researcher and the respondents in the research are seen as an integral part of the study process (Philip, 1998). McEvoy and Richards (2006) mentioned that participants are selected using purposive or theoretical sampling methods on the basis of how valuable they are likely to be for the quest of the investigation, and the opinions of participants who are not representative of the overall sample may be sought out (Goering & Streiner, 1996; Strauss & Corbin, 1998).

Interpretive approaches produce awareness and understandings of attitude, clarify

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activities from the respondents' view, and do not control the respondents (Scotland, 2012). For instance, some data collection tools for this type of approach are: open-ended interviews, focus groups, open-ended questionnaires, open-ended observations, think aloud protocol and role-playing. These approaches generally produce qualitative data (Scotland, 2012). Interpretive approach is focused on understanding an occurrence from a person's view, examining interaction between persons as well as the historical and cultural settings that individuals inhabit (Creswell, 2009). Scotland (2012) observed that interpretive studies are more intimate and open-ended than scientific study (Howe & Moses, 1999). People's constructs are elicited and understood through interactions among the investigator and respondents (Guba & Lincoln, 1994) with participants being relied on as much as possible (Creswell, 2009). Events are not reduced to simplistic interpretations; new layers of understanding are uncovered as phenomena are thickly described (Scotland, 2012).

Interpretive is a standard method to social science study that includes phenomenological sociology, philosophical hermeneutics and constructionist perspectives (Kura & Sulaiman, 2012). They lay emphasis on the examination of the text to ascertain entrenched meanings, how people use language and symbols to describe and build social practices in order to comprehend persons' activities and behaviours (Kura & Sulaiman, 2012). The interpretivist believes that the world is interpreted by trends and by the reason of conditions, not the rules of social reality. It is very easy to comprehend people's views regarding their own behaviours (Hussey & Hussey, 1997) by a detailed and qualitative method in search of knowledge (Kaplan & Maxwell, 1994). This indicates that interpretivists pursue to comprehend knowledge built on social reality by in-depth understanding and interpretation of meaning of events and precise life experiences (Kura & Sulaiman, 2012). The interpretivist used research approaches such as participant and

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non-participant observation to know details of interaction in their context. The interpretivists believe that social reality is grounded on subjective interpretation of activities (Kura & Sulaiman, 2012). The interpretivists do not offer sufficient data for generalisations, they are able to create the existence of an occurrence by detailed analysis as required by the study objectives. Henceforth, a serious study ought to be significant to the study questions and should be appropriate to the study setting (Kura & Sulaiman, 2012).

Interpretivist researchers approach the reality from issues, normally from persons who own their experiences and are of a precise cluster or culture (Thanh & Thanh, 2015). An interpretive study offers a chance to obtain a deep understanding of the problem being researched since interpretive description records the respondents' opinion and interprets it into a form that is understandable to readers (Newman, 1997). Interpretive research aim to capture the worlds of individuals by telling their circumstances, views, feelings and activities and by relying on portraying the study respondents' lives and opinions (Charmaz & Belgrave, 2007).

4.1.3. Postmodernism Theory

Agger (1991) identified that postmodernism on several occasions has been treated as periodization that is a precise cultural period following modernism (Fox, 2016). In addition, postmodernism is mostly described as social science and culture that recognise the validity of various perceptions (Agger, 1991; Fox, 2016). The argument of Balan, Savin, Balan, and Irina (2014) is that man is not only in the ecosystem, arguing that man's physiological being is likely to influence him prior to his creation. Balan et al. (2014) claim that the ecological factors, micro-organisms, natural dangers or the other bio-variable things to which individual persons survive are anticipated upon the development of man, on the foundation of worldwide evaluative requirements. Balan et al. (2014)

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argued that the course of such an evolution enforces postmodernism method. Cheek (1999) identified that an increased number of health researchers have begun to explore postmodernism method to obtain new and different analyses of healthcare practice. Fox (2016) explained that postmodernism methods to health, medicine and sickness have been applied to discover the relations between power, embodiment, identity and knowledge in health and healthcare.

Cheek (1999) specified that postmodernism methods are means of thinking about the world, and shapes the type of study that is used for, and which kinds of analyses that are used. Fielding (2009) argued that postmodernists find mixed approaches investigators involved with similar issues that postmodernism highlights. Fielding (2009) explained that the postmodernist employ study designs that use different study approaches to capture different features of a phenomenon, purposively drawing samples so as to contrast the perspectives of different collections. Fielding (2009) claimed that a multiple approach investigation acts as a help to investigative tunnel vision, it is a way of ‘analytic density’.

Fielding (2009) observed that postmodernism comprises triangulation and explained that triangulation is that which integrates several views to look at the study issue from all ‘angles’. Postmodernist experiential work may occasionally take the form of presenting the use of a multiplicity of approaches to produce varying results (Fielding, 2009). Fielding (2009) claims that it does not mean it is unable to decide between them. Licqurish and Seibold (2011) explained that postmodernism paradigm is grounded in beliefs about the variety of meaning and also the subjectivity of interpretation.

In the assessment of apparent deficiencies of interpretivist and positivist, it is significant for any scientist to recognise that no single study methodology is essentially better than the other. Authors have sought for a mixed approach to research (Kura & Sulaiman, 2012). The present study sought for a mixed-methods approach to achieve an additional

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comprehensive understanding of the study enquiry, to establish quantitative events with qualitative experiences and to explore qualitative findings (Creswell, 2013). The present researcher analysed these three philosophical assumptions and observed that postmodernism was the same as the philosophical assumptions of the researcher, hence, postmodernism was used as the philosophical assumption that guided the present study.

4.2. Research Methodology

The study adopted a mixed-methods approach, using both quantitative and qualitative research methods in gathering empirical data. The choice of the methodology was based on the researcher's philosophical assumption as a postmodernist. These methods have been explained.

4.2.1. Quantitative Research Methods

McEvoy and Richards (2006) mentioned that quantitative studies incorporate standardised procedures and statistical methods. Quantitative studies are usually linked with positivist paradigm. McEvoy and Richards (2006) claim that the paradigm is centred on the philosophy that researchers' presumptions need to be put aside to recognise objectives centred on the experiential observations. Ackroyd (2004) identified that the aim of quantitative study is to recognise generalisable laws that are grounded on the identification of statistical associations between independent and dependent variables (McEvoy & Richards, 2006). Participants of the study are chosen by the use of sampling methods that are intended to exclude possible sources of bias, and generalisations are made from the sample to a broader populace. Approaches that are associated with quantitative study comprise structured interviews and questionnaires, systematic reviews, randomised control trials and statistical analysis of data (McEvoy & Richards, 2006).

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4.2.2. Qualitative Research Methods

Denzin and Lincoln (2005) provided an extensive description of qualitative research; stating that qualitative study is an activity that finds the witness in the world. (Creswell & Poth, 2017). Qualitative study consists of a set of explanatory practices that make the world observable. These practices turn the world into representations, including interviews, field notes, conversations, recordings, photographs, and memos. A qualitative study includes an interpretive, naturalistic method to the world. Denzin and Lincoln (2005) mentioned that qualitative investigators research things in their natural surroundings, to construe phenomena in terms of the meanings persons communicate to them (Creswell & Poth, 2017). Ingham-Broomfield (2015) further describes a qualitative study as exploring subjective experience of man by using non-statistical approaches of investigation. Ritchie and Lewis (2003) identified that a qualitative study method was used to address research questions that required explanation of social occurrences and their contexts. A qualitative method is suited to discovering issues that held some complexity and processes that occur over time (Ritchie & Lewis, 2003). The sample size used in a qualitative study is smaller than that used in a quantitative study (Dworkin, 2012). A qualitative method is often concerned with an in-depth understanding of an occurrence (Dworkin, 2012).

4.2.3. Mixed-Methods Approach

In recent years, the use of qualitative and quantitative methods in studying a single phenomenon has established significant attention among academics (Hussein, 2015). Some scholars claimed that mixed methods could be considered as a third research method in addition to qualitative and quantitative research methods (Hussein, 2015).

A mixed-methods research is a method that combines quantitative and qualitative research approaches in the same study inquiry (Venkatesh, Brown, & Bala, 2013). A mixed-

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methods approach helps to develop rich understandings into various occurrences of interest that cannot be completely understood using only a quantitative or a qualitative approach (Venkatesh et al., 2013). A mixed-methods approach is basically used because it provides the best understanding of a study problem (Creswell, 2003). A mixed-methods approach presents a study that involves collecting, analysing and interpreting quantitative and qualitative data in a single study that investigates the same underlying occurrence (Leech & Onwuegbuzie, 2009). The combination of quantitative and qualitative methods sheds light on the same item from direct viewpoints and in different techniques, thus giving a more comprehensive and valid image of the subject under study (Flick, von Kardorff, & Steinke, 2004). In general, a mixed-methods research represents research that involve mixing quantitative and qualitative methods to produce new knowledge (Stange, Crabtree, & Miller, 2006).

A mixed methods study uses quantitative and qualitative study approaches, either concurrently (i.e., independent of each other) or sequentially (i.e., findings from one approach inform the other), to comprehend an occurrence of interest (Venkatesh et al., 2013). This study used the mixed method sequential model. Mixed methods are used to complement opinions about the same occurrences or relationships. Queries for one strand arise from the inferences of an earlier one, to explain or develop upon the understanding obtained in an earlier strand of a research, and to evaluate the reliability of inferences obtained from one method to compensate for the weakness of one method by using the other to achieve different views of the same occurrence (Venkatesh et al., 2013).

The present researcher used both paradigms [quantitative and qualitative] and designed them towards understanding a specific area of interest. Both paradigms had strengths and weaknesses (Hussein, 2015). Hence, when the two were combined, they neutralised the flaws of one method and strengthened the benefits of the other for better study results

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(Hussein, 2015). This also ensured methodological triangulation (Denzin & Lincoln, 2005).

4.3. Research Design and Strategy

Research designs are significant roadmaps for showing how to conduct research to meet objectives. The research design and strategy adopted has been explained below.

4.3.1. Descriptive Cross-Sectional Design

The study was a descriptive cross-sectional survey using a mixed-methods approach. A cross-sectional study is a study that uses a "snapshot" method where data are collected at one point in time (Gray, 2013). Cross-sectional studies often use a survey method (Gray, 2013). Descriptive studies offer an image of an occurrence as it naturally happens. Descriptive studies seek to draw an image of a condition, person or occasion or display how things are associated with each other (Gray, 2013). A descriptive cross-sectional study design was applied to analyse utilisation of healthcare services by the elderly at a specific point of time (Saunders, Lewis, & Thornhill, 2009). It was particularly suitable for providing significant information on factors influencing utilisation of healthcare services by the elderly at the Korle-Bu Teaching Hospital. In addition, it was used because it could provide the basis for health policy decision-making as it provides information about an issue (utilization of healthcare services by the elderly), and helps in planning resource allocation for the elderly.

4.3.2. Sequential Explanatory Design

The sequential explanatory design is characterised by the collection and analysis of quantitative data followed by the collection and analysis of qualitative data (Creswell, Plano, Gutmann, & Hanson, 2003; Terrell, 2012). The purpose of the sequential explanatory design is typically to use qualitative results to aid in explaining and

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interpreting the results of quantitative data (Creswell et al., 2003). The sequential explanatory model was used for this study as it sought to explain the earlier phase of quantitative results in more depth by interviewing participants about the earlier phase (Bulsara, 2015).

The sequential explanatory model as used in this present study began with the collection of quantitative and then qualitative data, and reporting results to present an interpretation of the findings (Stange et al., 2006). Thus, this study first surveyed a large number of the elderly persons (361) using structured open and closed-ended questionnaires. After the quantitative analysis was done, in-depth interviews ranging from ten to twelve participants (elderly persons) from each of the seven OPDs were conducted for more clarifications and detailed explanations of the findings. The quantitative research questions addressed the issues of the study. The information from the initial phase was explored in detail in the qualitative phase (Bulsara, 2015). Here, the researcher elaborated on or expanded the results of one method [quantitative data] with another method [qualitative data] (Creswell, 2003). The results from the qualitative phase explained (informed) in greater depth the findings from the earlier quantitative phase of the study and provided a better understanding of the quantitative results (Bulsara, 2015). The strength of the sequential explanatory design was that it was straightforward. Additionally, it was easy to describe and report, and offered further explanation of the quantitative data.

The explanatory method aided the researcher to know why the occurrences happened at the health facility and the powers and influences that initiated these occurrences from the elderly persons (Ritchie & Lewis, 2003). Thus, in this study, the explanatory method provided the rationale behind the results in the quantitative approach. The length of time involved in data collection to complete the two separate phases for the study was the main weakness of this design (Creswell et al., 2003).

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4.4. Study Area

This section presents the background to the study area.

4.4.1 Ablekuma Sub-Metropolitan

The study was conducted in the Ablekuma Sub-Metropolitan Assembly area in the Greater-Accra Region.

Geography and Demography

The Ablekuma Sub-Metropolis is the largest of the six sub-metropolises within the Accra Metropolis. Administratively, the Accra-Metropolis is made up of Ablekuma North (west and east Darkuman, Odorkor and Kwashiema), Ablekuma Central (Mataheko, Abossey Okai and Lartebiokoshie) and Ablekuma South (Mamprobi, Chorkor, Korle-Gonno and Korle-Bu) (Ghana Health Service, 2017).

Ablekuma Sub-Metro had a population of 814,612 as at 2010. Dansoman had 13,441 elderly, Manprobi had 22,402 elderly and Korle-Bu had 4, 888 elderly (Ghana Health Service, 2017). Figure 4.1 shows a map of the Ablekuma Metropolitan Assembly Area, Greater Accra Region.

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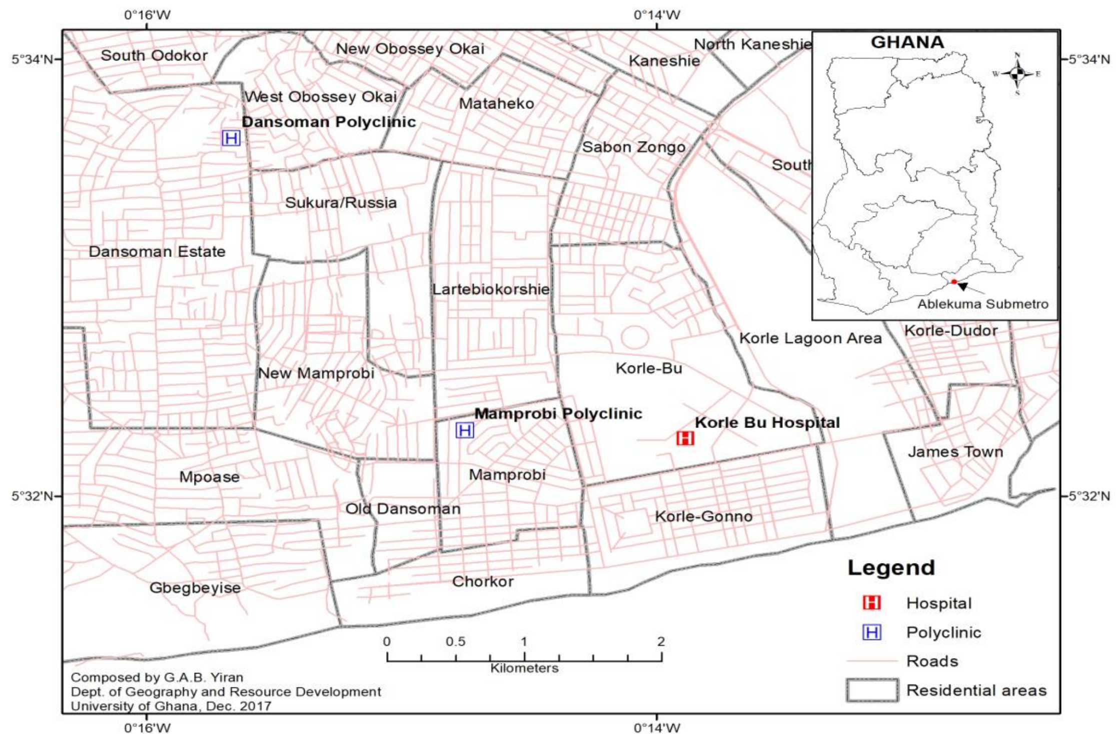

Figure 4.1: Ablekuma Sub-Metro.
Source: Department of Geography and Resource Development, UG (2017).

The Ablekuma Sub-Metropolis is bounded on the north by the Accra-Winneba Road to Cable and Wireless, left to house number 475/16 through the Oshijai Street at House No. B487/16, left to join the New Fadama and Darkuman road to link to the motorway; to Scwileg Street to the first range of hills and left along the hills to the boundaries between Kokroko (Ga District) and Awoshie. On the south, it is bounded by the Gulf of Guinea from where Korle Lagoon enters the sea at Korle- Gonno and westwards along the coastal lines to Panbros Salt Factory. Ablekuma Sub-Metro is bounded on the east by Kokroko Hills through swampy areas of the bridge on the Sakumono Stream and Winneba Road stretching along the stream to the starting point at Gbegbeyise. The west, is bounded by the Odaw Stream, off the Graphic Road and Ashiedu Keteke (Ghana Health Service, 2017).

The Ablekuma Sub-Metropolis features a tropical savannah climate. The topography of the area is gently flat, with some isolated hills found around Awoshie and McCarthy. The Sub-Metro also has its fair share of swamps, which can be found in communities such as

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Glefe and Mpoase (Ghana Health Service, 2017). The soil is sandy and clayey, and is suitable for the cultivation of vegetables such as pepper, cabbage, carrot, and cucumber. The normal yearly rainfall is about 730 mm, which falls mainly during Ghana's rainy periods. The main rainy period starts in April and ends in mid-July, while a weaker second rainy period happens in October. Rain usually falls in short rigorous storms and gives rise to local flooding where drainage canals are blocked (Ghana Health Service, 2017).

There is very slight variation in temperature throughout the year. The mean monthly temperature ranges from 24.7 °C in August (the coolest) to 28 °C in March (the hottest), with a yearly average of 26.8 °C. It should be noted, that the "cooler" months tend to be moister than the warmer months. During the warmer months and mostly during the windy harmattan period, a breezy "dry heat" that feels less warm than the "cooler" but moist rainy period is experienced. Most of the natural vegetation has been destroyed as a result of human activities (Ghana Health Service, 2017).

Political Administration

Ablekuma Sub-Metropolitan Assembly was established by Legislative Instrument 1722 (Ghana Health Service, 2017). The chairperson for the council is a political head, and the Assistant Director heads the administration. The administrative set is made up of administration, treasury, waste management unit, metro guards department, metro health department, audit section, works section, National Disaster Management Organization (NADMO), roads unit and rating/valuation (Ghana Health Service, 2017).

Economy

The employment sector provides about 33% of jobs to the public. About 62% of the folks in the Ablekuma Sub-Metropolitan Area work in the informal sector of employment such as buying, selling and fishing as well as fish mongering. The remaining 5% are working

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with non-governmental organisations and international organisations. Ablekuma Sub-Metropolis is economically active, with a day-to-day arrival of customers from the other parts of the Sub-Metros (Ghana Health Service, 2017). The Ablekuma Sub-Metro is one of the major centres for manufacturing, trade, investment, insurance, transportation and tourism. It has about 350 main manufacturing establishments, and its economic sector includes commercial banks, development banks and merchant banks. Despite these numerous job opportunities, unemployment is still a major problem in the Ablekuma Sub-Metropolis. There are reported incidents of social vices such as prostitution, armed robbery, pick-pocketing and child labour (Ghana Health Service, 2017).

Ablekuma-Sub-Metropolis has quite a number of educational institutions both public and private, consisting of basic schools, technical and vocational schools, second cycle institutions and two universities. The sub-metro also has a lot of recreational facilities such as football parks, internet cafes, restaurants and hotels (Ghana Health Service, 2017).

Due to the economically active nature of the Ablekuma Sub-Metropolis, there is extreme pressure on utility services such as water supply, electricity, sanitation services, markets, schools, housing, and health facilities. Most households are served with safe and potable pipe-borne water and electricity but most often there are frequent interruptions in electricity and water supply (Ghana Health Service, 2017).

Road infrastructure is largely poor, especially in the Darkuman and Dansoman areas. Even though the Ablekuma Sub-Metropolis has a few major roads, which are tarred, most of the small roads are untarred and dusty, and movement on such roads is quite difficult, especially during the rainy season (Ghana Health Service, 2017). The Ablekuma Sub-Metropolis has scarcity of land, leading to extreme pressure on housing. Houses are built in swampy areas such as the Glefe Community. Some houses are constructed on water-ways. Some landlords have constructed illegal extensions to their houses to accommodate

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extra heads, thereby creating severe flooding in some parts of the sub-metro anytime there is heavy rainfall (Ghana Health Service, 2017).

Sanitation remains a major public health problem in the sub-metropolis. There is poor disposal of refuse, ineffective human waste management and poor drainage/sewerage management. The pileup of refuse in some areas of the sub-metro produces breeding grounds for all types of vectors (Ghana Health Service, 2017).

Healthcare Provision

Ablekuma South has three public health facilities, namely; Mamprobi Polyclinic, Dansoman Polyclinic and Korle-Bu Teaching Hospital. Korle-Bu Teaching Hospital has various categories of health personnel. The hospital has doctor consultants, doctor specialists, resident doctors, medical doctors, dentists, doctor anaesthetists, and house-officers. The specialist nurses at the hospital are; critical care nurses, peri-operative nurses, ENT nurses, ophthalmic nurses, public health nurses, trauma nurses, midwives, paediatric nurses, general nurses and auxiliary nurses (Ghana Health Service, 2017). The Polyclinics have a specialist doctor each, medical doctors, physician assistants and a dentist each. The nurses comprise general nurses, midwives, public health nurses and auxiliary nurses (Ghana Health Service, 2017).

Additionally, Ablekuma South has 62 private clinics, 14 maternity homes, one private hospital and five Traditional Birth Attendants (TBAs) (Ghana Health Service, 2017).

4.4.2. Study Site

The sub-section presents the description of the KBTH as the study site.

Korle-Bu Teaching Hospital

The study site was the Korle-Bu Teaching Hospital. It covers an area of about 441 acres. Korle-Bu Teaching Hospital has moved from an original 192- bed capacity health facility

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to become a major national referral centre in Ghana, and the third biggest health facility in Africa (Korle-Bu Teaching Hospital, 2016). The hospital, as of 2012, had over 2,000 beds, 21 clinical and diagnostic units and three ‘Centres of Excellence’. These three “Centres of Excellence” are: The National Centre for Radiotherapy and Nuclear Medicine, Reconstructive Plastic Surgery and Burns Centre, and National Cardiothoracic Centre. Figure 4.2 shows the administrative block building of KBTH.

Figure 4.2: Administrative Block Building of Korle-Bu Teaching Hospital.
Source: Data from the field (2017).

The hospital draws a considerable number of clients from bordering countries such as Nigeria, Burkina Faso, Togo, among others.

The diagnostic and clinical departments are Pathology, Laboratory, Radiology, Anaesthesia, Surgery, Polyclinic, Medicine, Child Health, Obstetrics and Gynaecology, Accident Centre and the Surgical and Medical Emergency, as well as the Pharmacy (Korle-Bu Teaching Hospital, 2016). The hospital also offers sophisticated and scientific techniques in several fields such as Ophthalmology Clinic, Ear Nose and Throat (ENT), Renal, Orthopaedics, Oncology, Neuro-surgery, Dentistry, Radiotherapy, Radiodiagnosis, Paediatric Surgery, Dermatology, Cardiothoracic and Reconstructive Plastic Surgery and Burns (Korle-Bu Teaching Hospital, 2016).

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Currently, Korle-Bu Teaching Hospital has more than 4,000 medical and paramedical workforce with an average daily turnout of 1,500 clients, about 250 of which are hospitalised (Korle-Bu Teaching Hospital, 2016). In 1953, there was a rise in the growth of the populace, and the confirmed effectiveness of hospital-based treatment caused an increase in hospital attendance. The request for this type of treatment was so great that new buildings, such as the Maternity, Medical, Surgical and Child Health blocks were built to meet the increased demand. This increased the health facility's bed capacity to 1200 (Korle-Bu Teaching Hospital, 2016). Korle-Bu Hospital was converted to Korle-Bu Teaching Hospital in 1962 when the Medical School was established to educate the medical students. The Medical School is now known as University of Ghana Medical School. Presently, the University of Ghana Medical School and five other constituent schools are incorporated under the College of Health Sciences to educate an array of health professionals. All the schools of the College carry out their scientific training and research in the hospital (Korle-Bu Teaching Hospital, 2016).

Korle-Bu Teaching Hospital was the first in the West African sub-region to perform kidney transplantation and is one of the few healthcare facilities in Africa where DNA (Deoxyribonucleic acid) examinations are performed. It is also the first healthcare facility in Ghana to have performed ureteroscopy. Korle-Bu Teaching Hospital provides other specialised services, such as brachytherapy intervention for treatment of prostate cancer and keyhole surgery (Korle-Bu Teaching Hospital, 2016). The hospital expanded its structure to meet the increased number of patients. For instance, extension of the MRI and CT Scan Centre, refurbishment of the Paediatric theatre, Eye Clinic, Blood Bank, and the retooling of the Catering and Laundry Departments were done to offer a wider range of specialist care to site Ghana as the hub of health tourism within the West African sub-region (Korle-Bu Teaching Hospital, 2016).

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With the promulgation of the Act 525 of 1996 (Ghana Health Service and Teaching Hospitals, ACT, 1996), Korle-Bu Teaching Hospital was conferred with the authority to function as a semi-autonomous organisation (Korle-Bu Teaching Hospital, 2016). It draws direction from a Management Board accountable for providing broad policy direction. The day-to-day administration of the hospital is assigned to the CEO who is aided in his obligations by seven directorates. The directorates are Pharmacy, Nursing Services, Finance, Administration, Human Resource, Medical Affairs, and General Services. Administrative power is assigned to the Budget Management Centre (BMC), which is led by the CEO to ensure the smooth and effective operation of the hospital (Korle-Bu Teaching Hospital, 2016).

Korle-Bu Teaching Hospital has 17 departmental OPDs. These are; Polyclinic, Maternity, Medical, Child Health, Surgery, Diabetic Clinic, Gynaecology, Orthopaedic, National Cardiothoracic Centre Unit (CTU), Ophthalmology Clinic, Casualty, Ear Nose and Throat (ENT), Genito-Urinary (GU), Dental, Physiotherapy, Chest and Audiology (Korle-Bu Teaching Hospital, 2016). In the year 2013, the hospital recorded new OPD cases of 110,812. Out of this number, 12,128 (11%) were clients who were 60 years and above (males - 5,362 and females - 6,766). It recorded old OPD cases of 254,575. Of these, 49,676 (19%) were clients who were 60 years and above (males - 22,371 and females - 27,305). The hospital's OPDs overall attendance for 2013 (old and new cases) of all ages was 365,387. In the case of clients who were 60 years and above, the overall attendance for 2013 was 61,804 (17%) (Korle-Bu Teaching Hospital, 2016).

This study used seven departmental OPDs, which had high attendance of the elderly compared with the other departmental OPDs. These OPDs were Cardiothoracic Centre Unit CTU, Medical, Surgical, GU, Polyclinic, Ophthalmology OPD and Diabetic Clinic.

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Korle-Bu Teaching Hospital was chosen for this study because it provides all the three levels of healthcare services [primary, secondary and tertiary]. It is also the premier healthcare facility in Ghana. Although it provides tertiary healthcare services, the departmental OPDs selected provide primary, secondary and tertiary healthcare services to the elderly. In addition, studies have indicated that Ghanaian elderly clients with chronic conditions preferred utilising public health facilities (Awoke et al., 2017; Saeed et al., 2012). The seven OPDs selected are described below.

Korle-Bu Polyclinic

The Polyclinic is a 42-bed capacity healthcare unit that offers primary healthcare to the Korle-Bu community, its surroundings, and Ghana as a whole. The Polyclinic has been recognised as a teaching facility for family physicians for both West Africa and Ghana College of Physicians since 2003 (Korle-Bu Teaching Hospital, 2016). Figure 4.3 shows the waiting room area of the Korle-Bu Polyclinic.

Figure 4.3: Korle-Bu Polyclinic OPD (waiting room).
Source: Data from the field (2017).

The department offers primary healthcare services by engaging in the following activities: attending to patients at the OPD, admitting the seriously ill patients, and subsequently, facilitating transfer of those requiring secondary and tertiary services. The Polyclinic also

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provides public health services such as health education and ophthalmic screening (primary eye care), child immunisation and welfare clinics. In addition, it provides radiological services (x-ray unit), laboratory services, rendering services to Korle-Bu staff (staff clinic), and 24-hour pharmacy services to the public (Korle-Bu Teaching Hospital, 2016).

Medical OPD

The Medical OPD is under the Department of Medicine, which is the Physician Specialist Department of KBTH. Figure 4.4 shows the OPD waiting room at the Medical Department.

Figure 4.4: Medical OPD (waiting room).
Source: Data from the field (2017).

The unit offers specialist consultancy and services for referred medical cases to all groups of people irrespective of age and nationality. The Medical OPD is the initial point of call for referred cases for the different specialty clinics. The specialty clinics are renal, gastro, asthma, dermatology, neurology, endocrine, epilepsy, rheumatology, respiratory, haematology, stroke and general physician. The OPD operates from Mondays to Fridays. The OPD has 57 nurses and about 37 doctors (Korle-Bu Teaching Hospital, 2016).

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Surgical and Genito-Urinary OPD

The main activity of the Department of Surgery begins at the OPD that is the initial port of call for all referred cases from the different clinics. The unit provides these services; general surgery, urology and neurosurgery. The unit operates from Mondays to Fridays. There are thirteen professional nurses and four auxiliary nurses (Korle-Bbu Teaching Hospital, 2016). Figure 4.5 shows the waiting room area of the Surgical and Genito-Urinary (GU) OPD.

Figure 4.5: Surgical and Genito-Urinary OPD (waiting room).
Source: Data from the field (2017).

Cardio-Thoracic Unit OPD

The Cardio-Thoracic Unit (CTU) OPD provides tertiary healthcare services. It is one of the few facilities that is functioning in Africa. The CTU perform various health interventions for all age groups. Some of the conditions that the CTU perform interventions for, are vascular injuries, children with foreign bodies such as coins, nuts, screws, cancer of the oesophagus, cancer of the lungs, tumours of the chest cavity and other objects blocking their airways and lung passages (Korle-Bu Teaching Hospital, 2016).

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The centre also gets referral cases from The Gambia, Sierra-Leone, Liberia, Ivory Coast, Togo, Nigeria, Ethiopia, Tanzania, Cameroon and Benin. The OPD unit provides clinical consultations and cardiothoracic diagnostic investigations. The unit operates from Mondays to Fridays (7.30am - 4.00pm) (Korle-Bu Teaching Hospital, 2016). In addition, these services are performed at the unit: clinical consultation and executive consultation clinics, laboratory services, radiology (plain X-rays), echocardiography, electrocardiography, ergometry or exercise Electrocardiogram (ECG) test, Holter or 24-hour ECG monitoring, ambulatory blood pressure monitoring, cardiac catheterisation, endoscopy (oesophagogastrodeuodenoscopy and fibropticbronchoscopy) and medical screening (Korle-Bu Teaching Hospital, 2016). The OPD has four doctors, ten nurses, three healthcare assistants, four technicians and eleven auxiliary staff. Figure 4.6 shows the waiting room area of the CTU OPD.

Figure 4.6: Cardio-Thoracic Unit OPD (waiting room).
Source: Data from the field (2017).

Ophthalmology Department

The Ophthalmology Department is a modern specialist eye centre for the general public. It sees to all general eye diseases, and offers training to Ghanaian practitioners as well as practitioners from the West African Sub-Region. The Ophthalmology OPD operates from Mondays to Fridays. The unit also has wards, operation theatre and a pharmacy (Korle-Bu Teaching Hospital, 2016). Figure 4.7 shows the waiting room area of the Ophthalmology Department OPD.

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Figure 4.7: Ophthalmology OPD (waiting room).
Source: Data from the field (2017).

Diabetic Clinic

The Diabetic Clinic runs OPD services from Mondays to Fridays. To facilitate healthcare delivery, laboratory testing for patients is done on the premises of the Diabetic Clinic. The unit also provides eye care services for clients. A dietician visits the unit on Wednesdays and Thursdays. There are eight nurses and four doctors at the unit (Korle-Bu Teaching Hospital, 2016). Figure 4.8 shows the waiting room area of the Diabetic Clinic OPD.

Figure 4.8: Diabetic Clinic (waiting room).
Source: Data from the field (2017).

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4.5. Study Population

The study population consisted of all elderly patients 60 years and above, regardless of gender, who attended the Korle-Bu Teaching Hospital, from Monday to Friday between 4th July, 2017 and 30th March, 2018.

4.5.1. Inclusion Criteria

The study included persons who were Ghanaians, 60 years and above, who had attended the facility for over one month and demonstrated they were willing to participate in the study.

4.5.2. Exclusion Criteria

The study excluded persons who were Ghanaians, 60 years and above, who had attended the facility for over one month or over one month but were very frail, and unwilling to participate in the study.

4.6. Sampling Method

The sampling methods used for this study were purposive sampling technique and simple random technique, specifically, lottery method for the quantitative study. Purposive and convenient sampling techniques were used for the qualitative study. Acharya, Prakash, Saxena, and Nigam (2013) argued that a 'sample' is a subgroup of the populace, nominated to be representative of the bigger populace. Acharya et al. (2013) explained that since researchers cannot study the whole populace they need to take a sample. The sampling methods applied have been explained below.

Quantitative Sampling Method

Simple Random Sampling

Simple random sampling provides an equal chance of being nominated in the sample from the populace (Acharya et al., 2013). Palinkas et al. (2015) argued that simple random

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sampling is to ensure generalisation of results by reducing the possible bias in selection of participants. Additionally, simple random sampling controls the effects of known and unknown confounders. A sample frame is essential in simple random sampling. All persons in the study population have to be counted in ascending or descending form. In addition, the simple random technique does not need the data of the populace. Furthermore, the internal and external validity is high and data is very easy to analyse (Acharya et al., 2013).

Simple random sampling was employed, using the lottery method to select the participants for the quantitative study to reduce biases after they were purposefully selected. Using the monthly attendance of the seven OPDs, which were independent, the weighted average formula was used to allot the respective sample size for each of the seven OPDs (refer to table 4.1).

Qualitative Sampling Method

Purposive Sampling

Purposive sampling is the most common sampling technique used in research (Acharya et al., 2013). In purposive sampling, participants are selected because they are at the right place at the right time. This sampling method is generally used in clinical study where patients who meet the inclusion criteria and have information about and/or are knowledgeable of the phenomenon of interest are selected. Purposive sampling method is less costly and does not need the list of all the populace (Acharya et al., 2013; Morse, 1991; Palinkas et al., 2015).

The Korle-Bu Teaching Hospital had 17 OPDs at the time of the study. Therefore, a purposive sampling technique was used to select seven OPDs. Purposive sampling was used to select elderly participants who were in the inclusion criteria for the study because it enabled the choice of participants from whom the required information could be

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gathered as well as OPDs with the highest attendance for the sample size to be obtained. An OPD from the seven OPDs was selected and the OPD was visited each day until data collection was complete. For example, the sample size of CTU was 51; data was collected each day until it reached the sample size of 51. For each OPD day, the purposive sampling was used to select all the folders of patients in the inclusion criteria**.** Purposeful sampling was applied to select participants for the study since the OPDs comprised the young adults and the elderly.

Convenience Sampling Method

Convenience sampling method is usually used in healthcare studies (Burns & Grove, 2008). This is because sampling frames are not available for the populations, it is difficult to find participants for the studies (Burns & Grove, 2008). Convenience sampling involves selecting groups, locations or persons that are available and agree to partake in the study (Burns & Grove, 2008; Collins, Onwuegbuzie, & Jiao, 2007).

Convenience sampling was employed to select the participants for the qualitative study. This method was chosen because the elderly persons were available, accessible and present at the time of data collection.

4.7. Sample Size Determination

Sample size of a research or an experiment is determined by features comprising the purpose of the research or experiment and the magnitude of the populace (Israel, 1992). The sample sizes determination for the quantitative and qualitative studies have been explained below.

4.7.1. Sample Size for the Seven Selected OPDs in the Quantitative Study

Three hundred and sixty-one elderly patients were selected for the quantitative study based on the monthly average for 2015 and 2016 at the seven selected OPDs. This number was based on sample size methods gleaned from three studies (Araoye, 2004; Cochran, 1977;

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Gay & Airasian, 2003). Three criteria were used to determine the appropriate sample size for the study. The principles that guided the study were guidelines in sample size calculation (Araoye, 2004; Cochran, 1977; Gay & Airasian, 2003). Cochran (1977) minimum sample size estimation formula for proportions was used in estimating the sample size for the quantitative study. The formula was:

$$n \geq \frac{Z^2 p(1-p)}{e^2}$$

Using 95% confidence limit interval: $Z = 1.96$

$p = 50\%$ from previous studies on utilisation of healthcare services by the elderly (Khamis & Njau, 2014).

$p = 0.5$, $1 - p = 0.5$

d/e is the error band $= 0.05$

$$n \geq \frac{Z^2 p(1-p)}{e^2}$$

$$n \geq \frac{1.96^2 x 0.5(1-0.5)}{0.05}$$

$n \geq 384.16$

Thus, the minimum sample size, on the basis of Cochran's (1977) formula was 384.

Gay and Airasian (2003) also offered guidelines for selecting sample size recommending that a size of 400 could be used for a research or an experiment. Based on these guidelines, a sample size of 400 was used to compute the sample size for the various OPDs.

Furthermore, the sample size estimation formula for population less than 10,000 was used (Araoye, 2004).

$$n_f = \frac{n}{1 + n/N}$$

$n = 400$

N = total monthly attendance at the OPDs, was 4044

$$n_f = \frac{n}{}$$

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$$n_f = \frac{400}{1+400/4044}$$

$n_f = 400/1.098$

$n_f = 364$

The sample size adopted was 364.

To derive the sample size for each of the seven OPDs, the formula below was used (Bowley, 1926; Bowling, 2014).

$$K = 364 \times \frac{\text{Average monthly attendance for OPD}_{(i)}}{\text{Total average attendance of 2015 and 2016 } (T_t)}$$

Where P = average monthly OPD attendance for OPD,

T_t = Total average monthly OPD attendance for all the seven OPDs,

K_i = minimum sample size allocated for OPDs (Bowley, 1926; Bowling, 2014).

The calculations of the sample size for all the OPDs is presented in table 4.1.

Table 4.1: Sample Size for the Seven Selected OPDs in the Quantitative Study

NUM	DEPARTMENTAL OPD	Average monthly OPD attendance $P = \frac{2015+2016}{2}$	Sample size estimated for the various OPDs $K_i = \frac{P}{T_t} \times 364$
1.	Cardio-thoracic	570	51
2.	Medical	900	81
3.	Surgical	201	18
4.	Genito-urinary	458	41
5.	Polyclinic	1020	92
6.	Ophthalmology	371	34
7.	Diabetic Clinic	524	47
	TOTAL	**T_t 4044**	**K_t 364**

Source: Korle-Bu Teaching Hospital OPDs records (2016).

4.7.2. Sample Size for the Seven Selected OPDs in the Qualitative study

Saturation is the point reached in qualitative research where no new information is obtained from respondents (Hancock et al., 2009). Creswell (1998) suggests that, a sample size for a qualitative study should start from five. Seventy-six elderly patients from the seven OPDs participated in the in-depth interviews as shown in table 4.2.

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Table 4.2: Sample Size for the Seven Selected OPDs in the Qualitative Study

Num	Departmental OPDs	Sample size/Number of participants
1.	Cardio-thoracic	11
2.	Medical	12
3.	Surgical	10
4.	Genito-urinary	10
5.	Polyclinic	12
6.	Ophthalmology	10
7.	Diabetic Clinic	11
	TOTAL	**76**

Source: Field Data (2017).

4.8. List of Study Variables

The variables measured in the quantitative study were categorised into dependent and independent as explained below.

4.8.1. Dependent Variable for Utilisation of Healthcare Services

The dependent variable for the quantitative study was utilisation. This was measured using: waiting time, accessibility, cost of healthcare, information, health personnel attitude and physical support.

Independent Variables for Utilisation of Healthcare Services

The independent variables associated with utilisation of healthcare services were:

Predisposing factors: gender, age, educational level, marital status and employment status.

Enabling factors: NHI status, monthly earnings, financial assistance and accompanied.

Need factors: chronic disease(s), frequency of visits and OPDs patients attended. All these variables have been presented in table 4.3 (A and B).

4.8.2. Dependent Variables for Quality of Healthcare Services

The dependent variable was satisfaction.

Independent Variables for Quality of Healthcare Services

The independent variables for quality of care were: gender, age, marital status, educational level, earnings, NHI status, chronic disease and locality. All these variables have been presented in table 4.3 (A and B).

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Table 4.3 (A): List of Study Variables

Variable	Operational Definition	Variable Type	Scale of Measurement
	Objectives One and Two		
Age	Age in years of elderly participant	Independent	*Binary* <70 years ≥ 70 years
Sex	Biological sex of the participant	Independent	*Binary* Male Female
Marital Status	Spousal status of participant	Independent	*Binary* Spouse No-Spouse
Educational Level	Highest educational level attained by the participant	Independent	*Binary* < Secondary *≥Secondary*
Employment status	Having an employment opportunity where one earns a livelihood	Independent	*Binary* Employed Not-Employed
Monthly Earnings	Amount of money received at the end of every month	Independent	*Binary* < GHS 500.00 ≥ GHS 500.00
Financial Assistance	Receiving financial assistance from significant others	Independent	*Binary* Has financial assistance Has no Assistance
National Health Insurance Status	Participant bears a valid NHI card and uses card to access healthcare services	Independent	*Binary* Insured Uninsured
Came to the Hospital with an Assistant	Participant was accompanied to hospital by significant others	Independent	*Binary* Accompanied Unaccompanied
Chronic Diseases	Diagnosed of a chronic disease**(s)** for example: diabetes, hypertension, retinopathy among others	Independent	*Binary* One chronic disease Two or more chronic diseases
Frequency of Hospital Visit	Number of times in a month that a participant visits the hospital	Independent	*Binary* Once every month More than a month
Type of OPD Attended	Level of care received by the participant	Independent	*Categorical* Primary Secondary Tertiary
Locality	Residential status of the participant	Independent	*Categorical* Korle-Bu Environs Greater-Accra Region Outside GAR
Accessibility	Easy usage of healthcare services	Dependent	*Categorical* Low Moderate High
Cost of Healthcare	The fee paid for healthcare services	Dependent	*Categorical* Low Moderate High
Information	Directions in receiving care	Dependent	*Categorical* Low Moderate High

Source: Field Data (2017).

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Table 4.3 (B): List of Study Variables

Variable	Operational Definition	Variable Type	Scale of Measurement
	Objective One and Two		
Health Personnel Attitude	Feedback from medical staff	Dependent	*Categorical* Low Moderate High
Waiting Time	The time spent at the unit before seeing the doctor	Dependent	*Categorical* Low Moderate High
Physical Support	Physical assistance from the medical staff and other persons	Dependent	*Categorical* Low Moderate High
Quality of care	Elderly participants describing the quality of healthcare services received at the various OPDs	Dependent	*(a) Categorical* Low Moderate High *(b) Continuous*
	Objective Three		
Satisfaction with care (Qualitative)	The elderly feeling contentment with the improvement in their health		Content or not content with the improvement of their health

Source: Field Data (2017).

4.9. Data Collection Methods

Data for the study was collected between 4th July, 2017 and 30th March, 2018. A mixed-methods approach was used to collect data for the study. Data were collected from field notes, questionnaires and voice recorded interviews (Kajornboon, 2005). The methods used in collecting data were questionnaires for the quantitative study and in-depth interviews for the qualitative study. The methods applied in the data collection have been explained below.

4.9.1. Quantitative Data Collection Method: Questionnaire Design and Administration

"A questionnaire is a printed self-report form designed to elicit information through written or verbal responses of the subject" (Burns & Grove, 2008 p. 382). A structured questionnaire was designed and used to collect quantitative data from the elderly participants at the seven selected OPDs. A questionnaire was used to elicit information

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from the elderly on how they assessed the quality of healthcare services utilised. It also helped to assess factors that could influence utilisation of healthcare and the quality of healthcare they accessed at the healthcare units. The quantitative phase of the study was intended to obtain the bulk of the data from a survey. The questionnaire was divided into three sections.

Section “A” asked questions, which helped to answer the questions on the socio-demographic characteristics of the elderly. This section, “A” asked questions on the predisposing, enabling and need factors associated with utilisation of healthcare services by the elderly. Data was collected concerning the participants’ gender, age, marital status, educational qualification, employment status, monthly earnings, number of months or years they patronised the unit, the number of disease(s) with which they had been diagnosed, whether beneficiary of National Health Insurance Scheme (NHIS), health status of the elderly, place of residence, whether they were accompanied and how often they visited the unit, among others. The tool used to collect the data was structured as open-ended and closed-ended questions.

The section “B” asked questions relating to quality of healthcare. This section “B” enquired about the quality of healthcare accessed by the elderly. The questions were designed to survey participants’ opinions about accessibility of the unit, organisation of the unit, availability of healthcare services at the unit, time spent at the unit, NHIS coverage of services at the unit, physical support received at the unit, skills of the medical and paramedical staff. The questions were designed as Likert scale. An example of a question is: Pharmacist gives clear instructions about drugs. The elderly participants responded on a five point scale: 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree (Baltussen, Yé, Haddad, & Sauerborn, 2002) (See appendix 7 for detailed questionnaire used).

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The section "C" asked questions relating to utilisation of healthcare services. This section, "C" elicited views relating to utilisation of healthcare services. Questions in this section focused on issues related to cost (transport, medications, and laboratory investigations), waiting time, doctor's responses, availability of medications and laboratory investigations, language barriers and information among others. The questions were asked using the Likert scale. An example of a question is: Cost of healthcare affect your utilisation of the unit. The elderly participants responded on a five point scale: 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree (see appendix 7 for detailed questionnaire used).

The questions included closed-ended, open-ended and Likert scale questions. A five-point Likert scale was used to describe the following views of the elderly persons; 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree or 5 = strongly agree (Baltussen et al., 2002). The open-ended questions were few in number in order to give participants the opportunity to respond freely to the questions under discussion without restricting their responses. This provided detailed information about the phenomenon under study. The data collection tool or the questionnaire was designed as an adaption of the World Health Organisation's Age-Friendly Primary Care Centres Toolkit (WHO, 2008) and based on various literature.

The same questions were asked of all participants in the study similar to literature (Kajornboon, 2005). The aim was for all participants to be given precisely the same context of questioning. This ensured that the responses of the participants were aggregated as stated (Kajornboon, 2005). The strength of the questionnaire was that the researcher had control over the participants and the plan of the study. Therefore, there was a common format, which made it easier to analyse, code and compare data as explained in literature (Kajornboon, 2005).

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Participants were recruited from the seven selected OPDs at the Korle-Bu Teaching Hospital. The data were collected over the course of five days. On each day, eligible participants were given a questionnaire to fill (See Appendix 7) while they waited to see their doctors (before they were called to see their doctors). The purpose of collecting the data was explained to them in a language they understood, such as English, “Twi”, “Ewe”, “Ga” and “Hausa” [Ghanaian local languages] with the help of a participant information sheet (See Appendix 5). Participants who could not read or write were assisted by the researcher or research assistants using interviewer- administrated strategy. However, participants who could read, and write and decided to answer on their own did so using the self-administered strategy.

The questionnaires were administered by the eight trained research assistants. The duration of administration of the questionnaires was a minimum of 45 minutes to a maximum of 60 minutes. Face-to-face data collection was the method used to collect the data in the consulting rooms before the doctors arrived to consult.

4.9.2. Qualitative Data Collection Method: Interviews

Interviews were conducted to collect data for the qualitative study. The qualitative study described the world “from the inside out” from the view of the elderly who took part in the study (Flick et al., 2004). The theoretical approach that guided this qualitative study was based on interpretive theory (Cohen et al., 2007). The interpretive theory involves small scale research, non-statistical, subjective, personal involvement of the researcher; and involves understanding actors and meanings rather than causes (Cohen et al., 2007).

An interview is an approach of data gathering in which an interviewer obtains responses from a participant in a face-to-face meeting or through a telephone call (Ritchie & Lewis, 2003). In-depth interviews were used to elicit more information and explanation from the elderly. In-depth interviews are the best generally used methods in qualitative studies

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(Ritchie & Lewis, 2003). The in-depth interviews offered an unadulterated focus on the elderly persons. In-depth interviews provide a chance for complete enquiry of the participants' own views, for detailed understanding of the context within which the study phenomena are found, and for a very comprehensive topic coverage as documented (Ritchie & Lewis, 2003). In-depth interviews were suitable to investigate issues that needed understanding of occurrences and experiences because they provided the opportunity for the explanation and complete understanding of the elderly persons' experiences similar to what has been reported (Ritchie & Lewis, 2003).

In-depth interviews were done with the elderly by the use of a semi-structured interview guide. Thus, the involvement of the researcher was achieved and data collected were subjective. Questions on the interview guide addressed the 'why' and 'how' rather than 'what' of the phenomenon of interest.

The semi-structured interviews help the researcher (interviewer) to ask a number of specific questions and additionally, probe to have more information. Semi-structured forms of questions allowed the elderly persons to control the pacing of their interview. This led to understanding the phenomenon from their perspective as noted in literature (Scotland, 2012).

The interview guide contained questions, themes and subjects that the researcher wanted to cover during the interviews (Corbetta, 2003). The interview guide was clear and evaded ambiguity. Here, the interview guide had a list of key areas, issues, and questions to be covered to understand in-depth the phenomenon being studied. In this kind of interview, the order of the questions was altered subject to the trend of the interview (Corbetta, 2003). Additional questions were posed for clarification and sometimes questions that had not been thought of at the commencement of the interview were used for probing for more information as reported (Kajornboon, 2005). This type of interview gives the researcher

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the chance to probe for more ideas, opinions and views of the participants. Probing helps to discover new paths that are not originally considered (Kajornboon, 2005). That is, the strength of semi-structured interviews is that the researcher can prompt and probe deeper into the given situation. In addition, the researcher is able to explain or rephrase the questions if the participants are unclear about the questions asked (Kajornboon, 2005). The interviewing was done simultaneously by talking and listening to elderly participants while collecting data as well as gaining knowledge from these individuals similar to literature (Kajornboon, 2005).

The interviews were conducted from 4th July, 2017 to 30th March 2018. The interviews were face-to-face interactions between the researcher and the elderly participants. A voice recorder was used to record interviews that were done in either “Ewe”, “Twi”, “Ga” (local dialects in Ghana) or English Language. The voice recorder allowed the recording of every aspect of what the elderly participants stated. This assured a precise and rich data for the analysis.

In all, 76 elderly participants from the OPDs were interviewed with the help of the interview guide (see Appendix 8) in a room at the unit as they waited to see their doctors. The semi-structured interviews, were non-standardised (David & Sutton, 2004), set within a framework, which sought to find answers to the following questions. How do the elderly perceive satisfaction with the healthcare services utilised?

The duration of the interviews was from a minimum of 60 minutes to a maximum of 90 minutes. A non-directive style of interviewing was used (by adapting semi-structured form), which allowed the elderly participants to control the pacing of the interview. Permission was sought from the elderly participants to record the interviews and to write field notes. Interviewing continued until saturation of data was evident.

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4.9.3. Data Collection Methods and Tools

The data collection methods and tools are summarised in table 4.4.

Table 4.4: Data collection Methods and Tools

Specific objective	Sampling procedure	Data collection method	Tools	Source of data
1. To assess the influence of predisposing, enabling and need factors on utilisation of healthcare services by the elderly attending the KBTH.	Simple random sampling (lottery method)	Survey	Structured closed-ended Open-ended Likert scale Questionnaire	Elderly persons
	Purposive and Convenience sampling	In-depth interview	Interview guide	Elderly persons
2. To describe the quality of healthcare accessed by the elderly attending the KBTH.	Simple random sampling (lottery method)	Survey	Structured closed-ended Open-ended Likert scale	Elderly persons
	Purposive and Convenience sampling	In-depth interview	Interview guide	Elderly persons
3. To explore the perception of satisfaction with the quality of healthcare accessed by the elderly attending the KBTH.	Purposive and convenience sampling	In-depth interview	Interview guide	Elderly persons

Source: Field Data (2017).

4.10. Data Processing and Analysis

All tools were examined to make sure that they were valid and reliable. Collection of data was also done and supervised by the researcher to ensure accurateness, completeness, evenness and correctness of answers to the questions. The researcher and the eight research assistants checked the questionnaires for completeness and consistency before the elderly participants left the OPDs. The seven OPDs were coded for easy identification. The completed questionnaires were entered manually by the researcher.

Different analytical strategies were applied to analyse the data collected. For the quantitative data, factor analysis, chi-square test, ordinal logistic regression, one-way analysis of variance, ANOVA, and Generalised Linear Model (GLM) were used. For the qualitative data, content analysis was applied and Nvivo version 11 was used to organise the data. These have been explained below.

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4.10.1. Quantitative Data Analysis

The raw data was cleaned to check for any errors in coding before analysis was done. Different analytical strategies were used to analyse the quantitative data. Firstly, factor analysis (exploratory and confirmatory) was carried out followed by Generalised Linear Model (GLM), chi-square test, ordinal logistic regression and one-way analysis of variance (ANOVA). These have been explained below.

Exploratory Factor Analysis: Number of Important Components and their Eigen Value

Kaiser-Meyer-Olkin (KMO) and Bartlett test were used to conduct the exploratory factor analysis. The KMO criteria was 0.741 showing the sampling adequacy. The Bartlett's test gave a Chi-square statistic of 7276.637 with a degree of freedom of 190. The p-value was ($p<0.001$) showing that at least there was one significant pair-wise correlation among the 21 items. Using the Kaiser criteria, six factors were extracted since their Eigen values were more than 1. These have been shown in table 4.5.

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Table 4.5: Exploratory Factor Analysis Number of Important Components and their Eigen Values

Total Variance Explained

Component	**Initial Eigen Values**		
	Total	**% of Variance**	**Cumulative %**
1	**5.092**	**24.247**	**24.247**
2	**3.575**	**17.022**	**41.269**
3	**2.687**	**12.797**	**54.066**
4	**2.524**	**12.017**	**66.083**
5	**2.243**	**10.680**	**76.763**
6	**1.708**	**8.135**	**84.898**
7	0.478	2.278	87.176
8	0.423	2.014	89.190
9	0.351	1.670	90.860
10	0.301	1.433	92.293
11	0.265	1.262	93.555
12	0.246	1.173	94.728
13	0.210	1.000	95.728
14	0.206	0.981	96.710
15	0.194	0.924	97.633
16	0.142	0.675	98.308
17	0.121	0.578	98.886
18	0.103	0.488	99.375
19	0.065	0.308	99.683
20	0.053	0.253	99.935
21	0.014	0.065	100.000

KMO Criteria = 0.741, Bartlett's Test: *Chi-square* = 7276.637, df = 190, *p-value*
Source: Field Data (2017).

Screen Plot showing Number of Extracted Factors

In addition, from table 4.5, using the Eigen value greater than one criterion, six factors were extracted, together, accounting for almost 85% of the total variability in all the 21 variables. This was also confirmed by the scree plot in Figure 4.9 as the six factors were in the steep portions of the plot.

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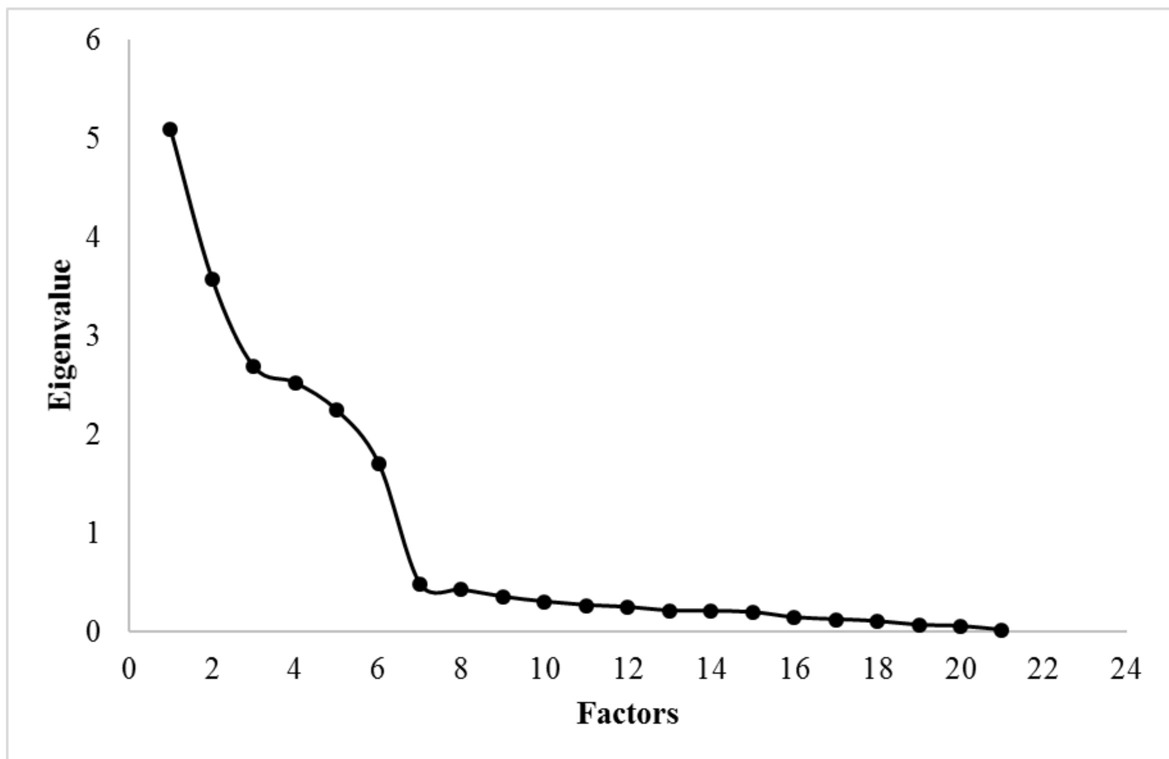

Figure 4.9: Scree Plot Showing Number of Extracted Factors.
Source: Field Data (2017).

Rotated Factor Loading (Component Matrix)

Using the Varimax rotation method, variables and their correlation with the factors were computed, ignoring the loadings less than 0.5 and variables that were loaded (correlated) highly with each factor. These variables were named as follows: factor one – cost of accessing healthcare at the unit; factor two – physical support; factor three – information barrier in utilising healthcare services; factor four – accessibility of healthcare; factor five – time spent at the unit; and factor six – health personnel attitude. These have been displayed in table 4.6.

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Table 4.6: Rotated Factor Loading (Component Matrix)

	Component					
	1	2	3	4	5	6
Cost of transport to the unit	**0.857**					
Cost of healthcare services	**0.885**					
Cost of medication	**0.909**					
Cost of lab investigation	**0.883**					
Shame and embarrassment prevents you from seeking medical care			0.953			
You have difficulties in getting into the building				**0.908**		
You have difficulties in accessing the unit				**0.931**		
Language is a barrier			0.946			
Lack of information is a barrier				**0.828**		
Do you have communication difficulties			0.890			
Time spent at the unit is a problem					**0.920**	
Doctors are not responsive to your concerns						**0.942**
Nurses are not responsive to your concerns						**0.958**
Other staff are not responsive to your concerns						**0.813**
You experience a long waiting list					**0.875**	
You experience long waiting time to see the doctor					**0.933**	
The gaps in insurance coverage affect utilisation of healthcare services at the unit	**0.862**					
Nurses provided physical support to you at the unit		**0.967**				
Doctors provided physical support to you at the unit		**0.966**				
Family members provided physical support to you at the unit		**0.810**				
Other staff members provided physical support to you at the unit		**0.921**				

Source: Field Data (2017).

Confirmatory Data Analysis

Table 4.7 shows the confirmatory data analysis. Confirmatory data analysis presents the various key factors indicating the different variables of the factor and what the items entails.

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Table 4.7: Confirmatory Data Analysis

Factor	Key	Item
Cost of Accessing Healthcare Services	Cost1	Cost of transport to the unit
	Cost2	Cost of healthcare services
	Cost3	Cost of medication
	Cost4	Cost of lab investigation
	Cost5	The gaps in insurance coverage affect utilisation of healthcare services at the unit
Information Barrier	Inform1	Do you have communication difficulties
	Inform2	Shame and embarrassment prevent you to seek medical care
	Inform3	Is language a barrier
Accessibility	Access1	You have difficulties in getting into the building
	Access2	You have difficulties in accessing the unit
	Access3	Lack of information a barrier
Time spent	Time1	You experience long waiting list
	Time2	You experience long waiting time to see the doctor
	Time3	Time spent at the unit is a problem
Health personnel attitude	StaffAtt1	Doctors are responsive to your concerns
	StaffAtt2	Nurses are responsive to your concerns
	StaffAtt3	Other Staff are responsive to your concerns
Physical support	Support1	Nurses provided physical support to you at the unit
	Support2	Doctors provided physical support to you at the unit
	Support3	Family members provided physical support to you at the unit
	Support4	Other staff members provided physical support to you at the unit

Source: Field Data (2017).

Confirmatory Factor Analysis

Table 4.8 presents that, all the items significantly loaded onto their assigned factors (constructs). The factor estimate indicates the most important factor. For instance, the most valued item for cost, is cost 3. The factor estimate is almost 1.2. The weightiest item for support, is support 1 and the factor estimate is 1. The most valued item for time, is time 3 and the factor estimate value for time is 1.28. For health personnel attitude, the weightiest item is attitude 3 and the estimate factor is 1.1. In the case of information barrier, the most value item is Inform 2 and the factor estimate is 1. The weightiest value for accessibility is access 1 and the factor is 1.

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Table 4.8: Confirmatory Factor Analysis (CFA)

Item		Factor	Estimate	S.E.	C.R.	P-valve
Cost1	←-	Cost	1			
Cost2	←-	Cost	1.108	0.052	21.463	<0.001
Cost3	←-	Cost	1.186	0.053	22.472	<0.001
Cost4	←-	Cost	1.102	0.053	20.682	<0.001
Cost5	←-	Cost	0.948	0.055	17.202	<0.001
Support1	←-	Support	1			
Support2	←-	Support	0.998	0.011	93.993	<0.001
Support3	←-	Support	0.900	0.032	27.918	<0.001
Support4	←-	Support	0.853	0.028	30.306	<0.001
Time1	←-	Time	1			
Time2	←-	Time	1.272	0.068	18.636	<0.001
Time3	←-	Time	1.277	0.070	18.286	<0.001
StaffAtt1	←-	Attitude	1			
StaffAtt2	←-	Attitude	0.664	0.042	15.737	<0.001
StaffAtt3	←-	Attitude	1.058	0.034	31.275	<0.001
Inform1	←-	Information	1			
Inform2	←-	Information	1.176	0.046	25.579	<0.001
Inform3	←-	Information	1.099	0.044	24.844	<0.001
Access1	←-	Accessibility	1			
Access2	←-	Accessibility	0.961	0.039	24.365	<0.001
Access3	←-	Accessibility	0.797	0.044	18.019	<0.001

Source: Field Data (2017).

The composite factors were computed using the weighted average of the items under it. From these computations, the score for each construct ranges between 0 and 100. With the physical support, the items were reverse scaled to reflect the same interpretations.

$$Cost = \frac{cost1 + 1.11cost2 + 1.19cost3 + 1.10cost4 + 0.95cost5}{5.34} \times \frac{100}{5}$$

$$Support = \frac{support1 + support2 + 0.90support3 + 0.85support4}{3.75} \times \frac{100}{4}$$

$$Time = \frac{time1 + 1.27time2 + 1.28time3}{3.55} \times \frac{100}{3}$$

$$Information = \frac{info1 + 1.18info2 + 1.10info3}{3.28} \times \frac{100}{3}$$

$$StaffAtt = \frac{StaffAtt1 + 0.66StaffAtt2 + 1.06StaffAtt3}{2.72} \times \frac{100}{3}$$

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$$Accessibility = \frac{access1 + 0.96access2 + 0.80access3}{2.76} \times \frac{100}{3}$$

For utilisation of healthcare services, exploratory factor analysis was used to identify the composite factors. In the analysis for utilisation of healthcare services, six variables, namely cost, accessibility, information, health personnel attitude and physical support, were used as benchmarks for measuring the extent to which the elderly utilise the healthcare services at the Korle-Bu Teaching Hospital. Each of the six variables was derived as a construct with a possible index ranging from 0 to 100. Due to the nature of the questions, a higher score means greater influence and hence, less utilisation. Additionally, the scores of each of the six variables were categorised as low (0 – 49), moderate (50 – 74) and high (75 – 100) based on literature (Thanavanh, Harun-Or-Rashid, Kasuya, & Sakamoto, 2013). Hence, these factors would be declared as aiding utilisation if the majority are in the low category.

To assess the bivariate relationships between the socio-demographic characteristics of the elderly (predisposing, enabling and need), and each of the variables measuring utilisation, a chi-square test was used and statistical significance was decided at 5%. The six factors had to be regressed against utilisation to show the relationship. The ordinal logistic regression has been explained below.

Ordinal Logistic Regression

The Ordinal Logistic Regression (OLR) was used to determine the adjusted relationships between the predisposing, enabling and need factors and each of the variables measuring utilisation. An odds ratio of more than one (1) indicated that a category of predisposing, enabling or need factor was more likely to be in a higher category of the utilisation variable compared with its reference category. In addition, relationships were estimated to be statistically significant at 5%. One-way analysis of variance is explained below.

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One-way analysis of variance (ANOVA)

For objective two, the composite score for quality of healthcare services was found by the average of all the questions under quality and expressed as a percentage of five, which was the highest rank for each question. A higher score means higher quality. A higher score means higher quality. The scores of each of the six variables were categorised as low (0 – 49), moderate (50 – 74) and high (75 – 100) based on literature (Thanavanh, Harun-Or-Rashid, Kasuya, & Sakamoto, 2013). In addition, the relationships between each socio-demographic variable and quality of healthcare were done by comparing average quality index score across categories of each socio-demographic variable using one-way analysis of variance (ANOVA). A significant F-statistic implies a significant bivariate relationship between the socio-demographic variables and quality of service. One-way ANOVA was used to establish the bivariate relationship between the socio-demographic characteristics and quality of services. The generalised linear model is explained below.

Generalised Linear Model

A generalised linear model (GLM) was used as a multivariate tool to examine the relationships between each socio-demographic factor and quality of healthcare services whilst accounting for the mutual effects of the socioeconomic factors on each other. Effect is the difference between an estimated average quality of healthcare of a category and the reference category of each socio-demographic variable. A positive effect means that a category of the socio-demographic variable rates quality of service higher than the reference category**.** A significant effect is the difference when other variables effects are considered.

4.10.2. Qualitative Data Analysis

Theoretically, content analysis was used to analyse the interview data. Content analysis is defined as “a research method for the subjective interpretation of the content of text data

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through systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p.1278). Content analysis is an investigation technique that is used in health research in recent times (Hsieh & Shannon, 2005). Other researchers explain that content analysis is grounded on natural investigation that involves identifying themes and patterns and comprises rigorous coding. It is used to analyse and construe qualitative data (Priest, Roberts, & Woods, 2002). Another explanation is that content analysis is a strategy for analysing descriptive studies (Sandelowski, 2000). Other analysts note that it is a method used to classify written or oral materials into identified categories of similar meanings (Moretti et al., 2011).

The argument is that content analysis displays three separate methods, namely, conventional or inductive, directed or summative (Hsieh & Shannon, 2005). These three methods are used to construe meaning from the content text information and also adhere to natural paradigm. In conventional or inductive content analysis, coding categories are derived directly from the text data (Hsieh & Shannon, 2005). It is gaining direct data from the research respondents without commanding predetermined groupings or theoretic understanding and the aim is to describe an occurrence (Hsieh & Shannon, 2005).

Inductive content analysis approach was used for this current study. Strategies were developed for the data collection, after which the data were analysed to see if any patterns arose that suggested relationships between variables based on literature (Gray, 2013). Literature shows that the process of inductive content analysis involves three key stages, which are; the preparation stage, the organisation stage and the reporting of results stage (Elo & Kyngäs, 2008). The preparation stage entails gathering appropriate data for content analysis, creating logic of the data gathered and then the unit is selected for analysis. The organising stage involves open coding, generating categories and abstraction. At the reporting stage, findings are reported systematically and logically. It ensures that there are links between the data collected and the findings reported. Moreover, the content and the

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organisation of concepts are stated in a clear and understandable manner (Elo & Kyngäs, 2008).

In this study, qualitative data was collected to obtain in-depth information to complement the quantitative data. Data collection and data analysis were done concurrently. This was to improve upon subsequent interviews and make necessary corrections where omissions had occurred in previous interviews.

The recorded interviews were played and carefully listened to many times. This enabled the interviews to be transcribed verbatim. The transcripts were read several times, one after the other and repetitive words and phrases identified were recorded in the margins of the transcript. A compilation of all the words and phrases were made and similar phrases were grouped together as emerging themes. A thorough and critical look at all the themes that emerged were carried out in order to identify patterns among them (codes or themes). Following the observed patterns, the themes were grouped in a hierarchical form comprising major themes and their corresponding sub-themes. A thorough check was carried out within each transcript and across all the transcripts for consistency. The findings were then presented categorically based on the emerging themes.

The data was organised for analysis by the use of Nvivo version 11. This was done by importing the data into Nvivo platform as suggested in literature (Ishak & Bakar, 2012). The software was used to boost the accuracy and speed of the analysis process (Zamawe, 2015) but it did not specifically analyse the data.

Summary of Themes and Sub-themes Generated from the Qualitative Data

The emerging themes, obtained inductively from the data, were closely linked to the objectives that focused on the following:

1. Utilisation of healthcare services

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2. Quality of healthcare services
3. Satisfaction with healthcare services

Table 4.9 shows a summary of themes and sub-themes generated.

Table 4.9: Summary of Themes and Sub-themes Generated from the Qualitative Data

Key phrases from specific objectives	Themes Generated	Sub-themes Generated
Predisposing, enabling and need factors on utilisation of healthcare	Predisposing	• Bodily pains • Long stressful waiting time
	Enabling	• Exorbitant diagnostic fees • Expensive medication • Costly consultation fees
	Needs	• Cumbersome procedures • Waking up early • Distance to the facility
Quality of healthcare services	Structure	• Medical proficiency/Availability of skilled personnel • Physical support • Poor seats and sitting arrangements
	Process	• Waiting time • Health personnel attitude
Satisfaction with healthcare services	Outcome	• Healthy life • Improved stabilised health

Source: Field Data (2017).

4.10.3. Data Triangulation Management

Triangulation refers to the observation of the research phenomenon from at least two different points (Flick, 2014). This study used two different methods to triangulate for better understanding of the phenomenon. Triangulation of this study was joined from two different sources [quantitative and qualitative data], at different times and from different people. The triangulation approach was employed to explain the findings of the study.

The aim of triangulation in this study was to increase the sureness in the results through the validation of at least two independent methods. This is because triangulation is the mixture of outcomes from two or more laborious methods to provide a more complete representation of the findings than either method could do by itself (Heale & Forbes, 2013).

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The current study used both the quantitative and qualitative data, which were analysed independently. The findings were then triangulated to produce the findings of the research. The findings of the study were presented in a narrative form by explanatory quotes from the elderly participants. Thus, triangulation, assisted the study to confirm and complete the information in the study.

4.11. Quality Assurance

Steps were taken to ensure data quality assurance in the study.

Training of Research Assistants

The study was conducted with a team of eight research assistants. The research assistants were past students of the Nursing Department, Valley View University and Nursing and Midwifery Training College, Korle-Bu. These research assistants had completed their National Service and had some knowledge of medical research. The research assistants were trained in report building, listening and probing skills, as well as data collection for three days. The main duty of the research assistants was to administer the questionnaires to the participants in the study area. In addition, some data collection was conducted together [with the researcher] and the results were compared.

Pre-Testing

The data collection tools were pretested to ensure validity and reliability of the questions (Newman, 2007). That is, tools used for the data collection (questionnaires and the semi-structured interview guide) were pre-tested. The tools were first previewed by an authority in research on the elderly who is also a lecturer at the University of Ghana, Legon. This ensured that all the variables required for the study, the objectives, and conceptual framework were reflected in the questions clearly. Secondly, the tools were pre-tested at the Greater Accra Regional Hospital using patients who were 60 years and above and had

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been using the healthcare services for over one month. Five elderly patients each from the Surgical OPD and five elderly patients from Medical OPD responded to the questionnaires. Then, two elderly patients each from the Medical and Surgical OPDs were interviewed in a room at the unit with the use of an interview guide. The pre-test clarified the tools for research adequacy and freedom from any bias. All ambiguous questions detected were reframed. This enabled participants in the study to understand them better.

4.12. Validity and Reliability

The validity and reliability of the quantitative data and methodological rigour of the qualitative data were ensured.

4.12.1. Validity and Reliability of the Instrument for the Quantitative Study

Heale and Twycross (2015, p.66) defined validity as “the extent to which a concept is accurately measured”. Validity is key to effective research and a requisite for quantitative research (Cohen et al., 2007). Smith (2015) argued that validity is the precision in which results precisely reveal the data. Heale and Twycross (2015) and Bernard (2006) claim that reliability is the exactness of a tool constantly having the same findings if it is used in the circumstances on repetitive times. Smith (2015) stated that reliability is the dependability of the analytical methods. The study ensured validity and reliability through the use of suitable instrumentation. The WHO Age-friendly Primary Heath Care Centres Toolkit (World Health Organization, 2008) was adapted as a primary tool for the study. In addition, the statistical tools used for the data analysis were STATA SE version 14 and IBM-SPSS version 22, which are both recommended scientific packages for analysing data for health research.

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4.12.2. Methodological Rigour of the Qualitative Design

Rigour or trustworthiness is the degree of sureness in data, explanation of the interview and methods used to guarantee the quality of the study. Rigour involves the credibility, dependability, confirmability and transferability (Connelly, 2016; Polit & Beck, 2014). Rigour was ensured in the qualitative study. These variables have been explained below.

Credibility

Credibility is the sureness in the truth of the research (Connelly, 2016; Polit & Beck, 2014). Credibility of the study was achieved by recruiting elderly participants who satisfied the inclusion criteria. The researcher had a prolonged meeting with the elderly participants. The researcher interpreted and presented the interview as stated by the elderly participants. The written notes were read to the elderly participants to confirm what they stated. Coding of the data was also confirmed by a person who had majored in qualitative data; to identify any disagreement.

Dependability

Dependability of this study was the consistency of the data collection over a period of time. The qualitative data were collected from 8th January, 2018 to 30th March, 2018 (Connelly, 2016; Polit & Beck, 2014). Dependability was attained by writing, in detail, the report of the process involved in the study. The use of the same interview guide to collect data from all the elderly participants was to ensure dependability. Additionally, a detailed description of the study setting, sampling method employed and the analysis of the data were described. Furthermore, the researcher noted all activities that occurred during the data collection. An audit trail was also kept by the researcher.

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Confirmability

Confirmability is when the findings of the research are reliable and could be repeated (Connelly, 2016; Polit & Beck, 2014). This was achieved by the use of a voice recording that was transcribed verbatim. Clarification of the information with the elderly participants after the researcher had transcribed and analysed the data was achieved by reading to a few of the elderly participants to confirm and clarify statements said during the interview. Additionally, it was previewed by an authority in qualitative study. Member checking was used to certify the responses by enquiring from the elderly participants to review the themes and narratives to validate if the researcher correctly wrote the experiences of the elderly participants.

Transferability

Transferability of the study is when the findings of the research can be useful to elderly persons in other settings or contexts (Connelly, 2016; Polit & Beck, 2014). The study findings are transferable as the researcher gave a thick description of the setting of the study, the design, and the inclusion and exclusion criteria. In addition, the sample size and the method used in collecting data and the length of data collection were specified. Furthermore, the researcher ensured that findings were presented with the correct quotes.

4.13. Internal Consistency

Internal consistency is the reliability and credibility of the tool used for the study.

Quantitative Data

Heale and Twycross (2015) explained that Cronbach's alpha is commonly used to examine the internal consistency of a tool. To determine the internal consistency and validity for quantitative data, the items on the questionnaire were calculated by the use of Cronbach's alpha. For the section 'B', on quality of healthcare services, the Cronbach's alpha was 0.83 and section 'C', on utilisation of healthcare services, the Cronbach's alpha was 0.82. All the items were maintained in the final questionnaire.

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Qualitative Data

Internal consistency for the qualitative data was obtained by giving the transcribed interviews to a person who has authority in qualitative research to confirm the coding, and tease out the themes and sub-themes. These were similar to the researcher's coding, themes and sub-themes and thus confirmed the internal consistency and validity of the data.

4.14. Ethical Considerations

Steps were taken to ensure that ethical issues were addressed in the study.

Ethical Clearance

Ethical clearance was granted by the Korle-Bu Teaching Hospital Institutional Review Board (See Appendix 1) and Korle-Bu Teaching Hospital-Scientific and Technical Committee (See Appendix 2). The study's identification number is KBTH-IRB 00013/2017.

Permission from the study site

Permission to recruit from the hospital was granted by the Chief Executive Officer (CEO) of Korle-Bu Teaching Hospital as well as the Deputy Director of Nursing Services (DDNS) of Korle-Bu Teaching Hospital, the Heads of Department of the seven OPDs and DDNS in charge of the OPDs through a permission letter from the School of Public Health (See Appendix 3). Introductory letters were sent to the various administrative units of the seven selected OPDs. Permission was then granted to start the data collection.

Informed Consent

Informed consent provided the elderly participants with information about the objectives of the research, the funder, members of the study, how the data would be used, what was required of them and the time required in taking part in the study (Ritchie & Lewis, 2003).

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The elderly participants were given information on the study in a participant information sheet (See Appendix 5), which informed the participants on the study title, information about the researcher, the purpose of the study, how the participant was chosen, the benefits, cost of participating, how privacy was protected and how they could obtain the findings. The informed consent gave the participants the choice to take part in the study or not. The informed consent summarised the general information about the study the objective, purpose, time frame to fill the questionnaire, risks and discomforts, possible benefits, confidentiality, compensation, additional cost, voluntary participation and the right to withdraw from the study. Participants were assured that when they withdrew from the study, their action would not affect their care and contact for additional information.

The consent form had a column for the elderly participants to sign or thumb print after they had agreed to be involved in the study. The consent form had an additional column for the name and signature for the witness of the elderly participants (See Appendix 6).

Anonymity and Confidentiality

The elderly participants for the study were assured of anonymity and confidentiality. They were assured that data collected would be kept confidential. Anonymity was ensured through the omission of any identifying data; for example, by not requesting the names of the participants, but instead using numbers (codes) for participant identification. The participants were assured of their protection and the fact that information received would not be divulged to others. No participants were identified.

Data storage

The stored data of this study had a code, which was exclusively used for this study. Moreover, the computer was not for public use. It was solely used by the researcher. Additionally, confidentiality was ensured by not storing the background information of the elderly participants together with the data. Furthermore, codes were used to identify the

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elderly participants instead of names. The hard copies were kept under lock and key, the soft copies had a pass word. The data would be kept at least for a period of five years before it would be discarded.

4.15. Limitations of the Study

The study did not include the elderly persons 60 years and above who were on admission, this could narrow the findings. In addition, elderly persons who utilised the private OPDs were not involved.

Furthermore limitation, was funding to increase the scope of the study. However, these limitations did not affect the overall findings of the study.

4.16. Summary of the Chapter

The chapter presented the research methods and the philosophical assumptions of the study. The study was a descriptive cross-sectional survey that used a mixed-methods approach [sequential explanatory design] to describe the quality of healthcare services utilised by the elderly at the Korle-Bu Teaching Hospital (KBTH). Seven OPDs that recorded high attendance of the elderly were used for the study. Participants for the study were Ghanaian elderly who were 60 years and above, who had utilised the facility for more than one month and demonstrated willingness to participate in the study.

There were 361 elderly participants who were involved in the quantitative study and 76 for the qualitative study. These elderly participants were purposively selected. The data analyses used were factor analysis, chi-square test, ordinal logistic regression, ANOVA and generalised linear model for the quantitative data. Content analysis was used for the qualitative data using Nvivo 11 to organise the data to boost accuracy and speed of the analysis process. Triangulation was done after data were analysed independently. Data management and quality assurance were ensured. Quality assurance was also ensured by the training of research assistants and pre-testing of the tools. Internal consistency and validity were achieved by the use of Cronbach’s alpha to calculate the items in the

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questionnaire. Ethical clearance was granted by the KBTH Institutional Review Board and KBTH Scientific and Technical Committee. Voluntary participation, anonymity and confidentiality were ensured during the data collection. The next chapter presents the quantitative results of the study.

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CHAPTER FIVE

QUANTITATIVE RESULTS

5.0. Introduction

This chapter presents the quantitative results of the study. The original sample was 364. However, the quantitative data was gathered from 361 elderly participants who attended the Polyclinic - 91, Diabetic clinic - 47, Ophthalmic clinic - 33, CTU - 51, GU - 40, Medical OPD - 81 and Surgical OPD - 18 at the Korle-Bu Teaching Hospital. Data from three persons were excluded from analysis. These three persons were from Genitourinary, Polyclinic and Ophthalmology OPDs. They were excluded due to their inconsistencies and incomplete responses (Evans, 1991; Horsburgh, Goldfinch & Gauld, 2011).

The results presented in this study is based on the 361 completed questionnaires, giving a 99.2% response rate. Researchers explained that, a response rate greater than 80% is considered enough and further clarified that a 100% response rate is not always likely in real practice (Evans, 1991; Horsburgh et al., 2011).

The first section presents the socio-demographic characteristics of the elderly participants. A pie chart shows the frequency of visits by the participants to the hospital for their reviews. This is followed by a table showing the percentage of the elderly participants who agreed to various variables that influenced their utilisation of healthcare services. The analysis is presented according to the association of predisposing, enabling and need factors with utilisation. The second section of this chapter describes the quality of healthcare services accessed by the elderly. The quality segment presents the components of quality of healthcare services. This is followed by the analysis between socio-demographic characteristics and quality of healthcare services.

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5.1. Socio-Demographic Characteristics of the Elderly Participants

This section presents results of the socio-demographic characteristics of the elderly participants, in frequencies and percentages. From the results, 177 (49%) of the elderly participants were females and 184 (51%) were males. More than half, 191 (53%) were below the age of 70 years. Two hundred and eighty-six, 286 (79%) were not involved in any occupational work. Majority 165 (45.7%) were diagnosed with one chronic disease, which was followed by 145 (40.2%) who were diagnosed with two chronic diseases. The results indicated that majority of the elderly participants were diagnosed with multiple chronic diseases. Moreover, 187 (52%) were accompanied to the OPDs. Most of the elderly participants, 350 (97%) spent more than two hours on a visit at the OPDs. Furthermore, 241 (67%) had no financial assistance towards utilisation of healthcare services at the KBTH. In all 70 (19.4%) of the elderly participants journeyed from or resided in other regions in Ghana to KBTH. Table 5.1 shows the detailed information on the socio-demographic characteristics of the elderly participants.

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Table 5.1: Socio-Demographic Characteristics of the Elderly Participants

Variables	Categories	Frequency	Percentage (%)
Gender	Female	177	49.0
	Male	184	51.0
Age	< 70 years	191	52.9
	≥ 70 years	170	47.1
Educational Level	No formal education	80	22.1
	Standard-seven/middle school	150	41.6
	Secondary/vocational/technical	58	16.1
	Professional/polytechnic	44	12.2
	University	29	8.0
Marital Status	Single	16	4.4
	Married	203	56.2
	Widow/widower	113	31.3
	Separate	7	2.0
	Divorced	21	5.8
	Co-habitation	1	0.3
NHI Status	Uninsured	26	7.2
	Insured	335	92.8
Monthly Earnings	Below GHS 500.00	222	65.3
	GHS 501.00 – GHS 1000.00	81	23.8
	GHS 1001.00- GHS 1500.00	21	6.2
	Above GHS1500	16	4.7
Employment Status	Unemployed	286	79.2
	Employed	75	20.8
Time Spent	< 2 Hours	11	3.0
	≥ 2 Hours	350	97.0
Chronic Disease	One	165	45.7
	Two	145	40.2
	Three	39	10.8
	Four	12	3.3
Accompanied	Unaccompanied	174	48.2
	Accompanied	187	51.8
Financial Assistance	Not Assisted	241	66.8
	Assisted	120	33.2
Locality	Korle-Bu Environs	58	16.1
	Greater-Accra Region	233	64.5
	Out-side Greater-Accra Region	70	19.4

Source: Field Data (2017).

5.2. Frequency of Hospital Visits

The study examined how frequent the elderly persons visited the KBTH hospital. In all, 266 (74%) stated that they visited the unit every two or three months. Minority of the elderly persons 95 (26%) visited the unit monthly. The elderly persons report to the hospital for continual visits to check their health and to get their medications. Figure 5.1 shows the results of frequency of hospital visits.

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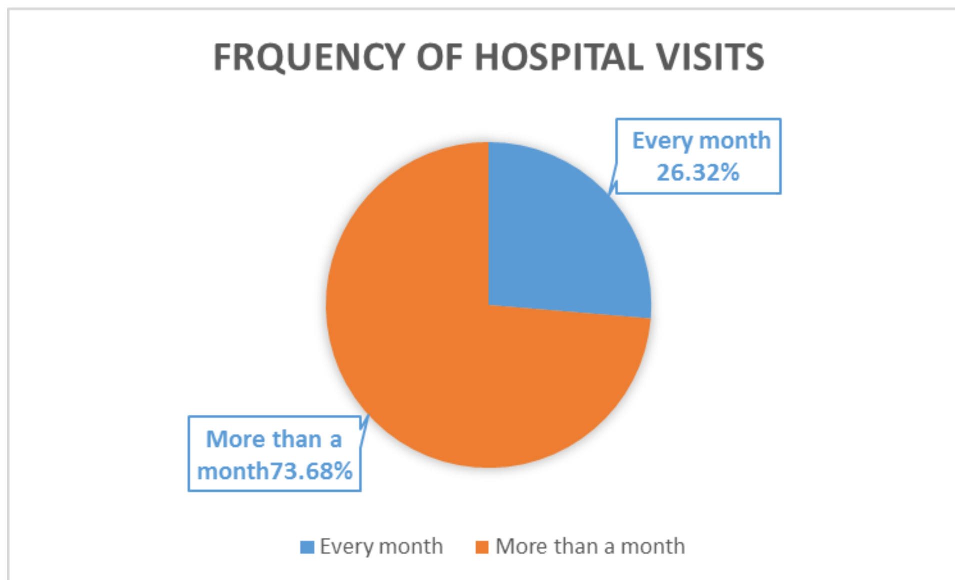

Figure 5.1: Frequency of Hospital Visits.
Source: Field Data (2017).

5.3. Elements Associated with Utilisation of Healthcare Services by the Elderly Persons

In this section, the study presents results of the elderly participants who agreed that elements in table 5.2 were associated with their utilisation of healthcare services. In other words, the predictors of utilisation of healthcare services responses to agree and strongly agree were both considered as agree, indicating an association of a predictor on utilisation. This categorisation is in accordance with suggestions in literature (Jamous, Sweileh, Taha, & Zyoud, 2014). Table 5.2 shows the details of the percentages of the elderly participants who agreed to the association of the variables on utilisation of healthcare services.

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Table 5.2: Elements Association with Utilisation of Healthcare by the Elderly Persons

Category Elements	Number (out of 361)	Percentage that agreed %	95%Confidence	Interval(CI)
			Lower	Upper
Cost of transport to the unit	169	46.8	41.7	52.0
Cost of healthcare services	186	51.5	46.4	56.7
Cost of medication	189	52.4	47.2	57.5
Cost of lab investigation	46	12.7	9.3	16.2
Shame and embarrassment prevents you from seeking medical care	70	19.4	15.3	23.5
Difficulties in getting into the building	56	15.5	11.8	19.2
Difficulties in accessing the unit	41	11.4	8.1	14.6
There is a language a barrier	64	17.7	13.8	21.7
Lack of information a barrier	44	12.2	8.8	15.6
Communication difficulties in accessing care	70	19.4	15.3	23.5
Time spent at the unit is a problem	302	83.7	79.8	87.5
Doctors are not responsive to your concerns	319	88.4	85.1	91.7
Nurses are not responsive to your concerns	321	88.9	85.7	92.2
Other staff are not responsive to your concerns	315	87.3	83.8	90.7
You experience a long waiting list	297	82.3	78.3	86.2
You experience long waiting time to see the doctor	308	85.3	81.7	89.0
The gaps in insurance coverage affect utilization of healthcare services at the unit	208	57.6	52.5	62.7
Nurses provided physical support to you at the unit	157	43.5	38.4	48.6
Doctors provided physical support to you at the unit	150	41.6	36.5	46.6
Family members provided physical support to you at the unit	158	43.8	38.6	48.9
Other staff members provide physical support to you at the unit	148	41	35.9	46.1

Source: Field Data (2017).

5.4. Association of Predisposing, Enabling and Need Factors on Utilisation of Healthcare Services

This section presents the results relating to objective one of the study: to assess the association of predisposing, enabling and need factors on utilisation of healthcare services by the elderly attending the KBTH. Firstly, the results show the levels of the associations; and, secondly, a bivariate analysis of the associations between the predisposing, enabling and need factors and utilisation are presented. Additionally, results of the logistic regression shows the adjusted association between the socio-demographic characteristics

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of the elderly participants and utilisation of healthcare services. The variables used to represent utilisation of healthcare services were cost, information, accessibility, waiting time, physical support and health personnel attitude against the predisposing, enabling and need factors.

5.4.1. Level of Association of Cost on Utilisation of Healthcare Services

This sub-section presents the association of cost on utilisation of healthcare services among the elderly participants attending the KBTH. One hundred and nineteen, 119 (33.0%) of the elderly participants indicated that cost had a low association on utilisation of healthcare services. The results are detailed in figure 5.2.

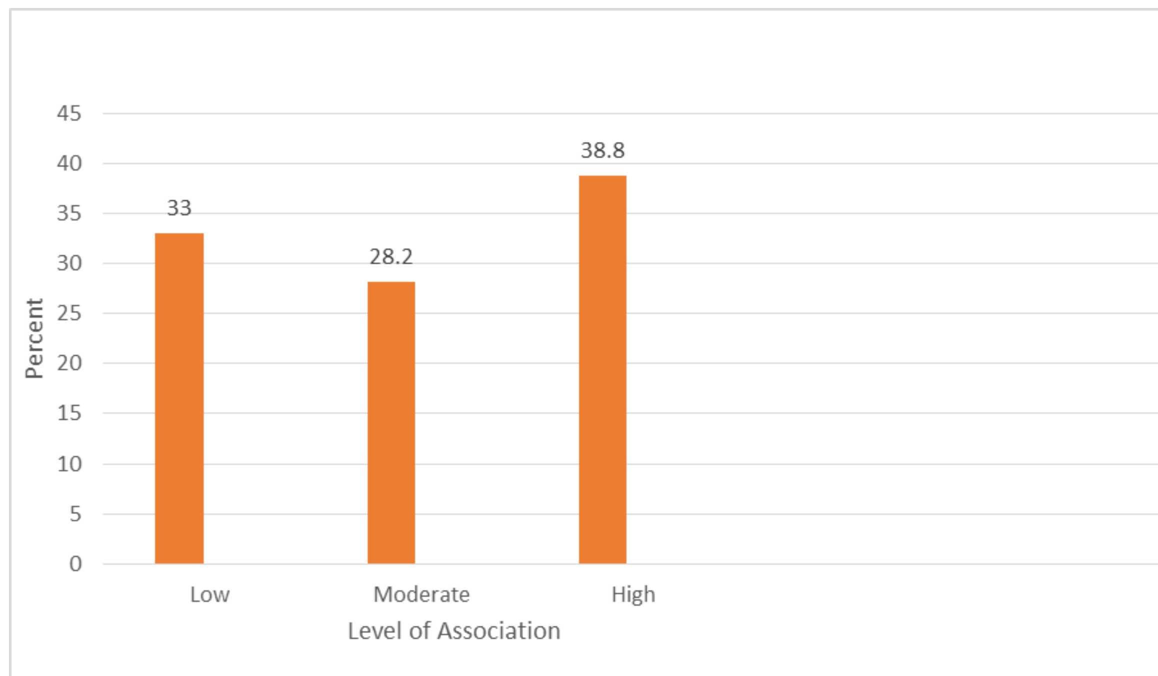

Figure 5.2: Level of Association of Cost on Utilisation of Healthcare Services.
Source: Field Data (2017).

5.4.2. Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Cost on Utilisation of Healthcare Services

This sub-section presents the bivariate analysis of the association between the predisposing, enabling and need factors of the elderly and cost on utilisation of healthcare services at KBTH. The results have been presented below.

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Association between Predisposing Factors and Cost on utilisation of Healthcare Services

The proportion of elderly participants 100 (44.4%) who obtained below secondary school education rated cost on utilisation as high, compared to 40 (29.4%) with above secondary education. This indicates that those who had obtained below secondary school education perceived that cost healthcare services as high. There was a statistically significant association between level of education and cost on utilisation (χ^2 = 9.50; p = 0.009). However, age, gender, employment and marital status were all not significantly associated with cost on utilisation of healthcare services.

Association between Enabling Factors and Cost on Utilisation of Healthcare Services

The proportion of the elderly who earned less than GHS 500.00 monthly, who rated cost as high, 87 (39.2%) was marginally higher than those who earned more than GHS 500.00, 53 (38.1%). There was a statistically significant association between earnings of elderly participants and cost on utilisation of healthcare (χ^2 = 7.23; p = 0.026).

Association between Need Factors and Cost on Utilisation of Healthcare Services

The proportion of the elderly who attended the OPDs was significantly associated with cost on utilisation of healthcare (χ^2=14.78; p=0.005). The proportion of the elderly participants who attended the primary OPDs rated cost as high, 32 (35.2%) was the least whilst those who attended the secondary OPDs rated cost as high was the most, 88 (40.2%). The results suggested that the elderly participants attending the secondary OPDs viewed cost as a factor not encouraging the utilisation of healthcare services.

Table 5.3 shows the association between the predisposing, enabling and need factors of the elderly participants and cost on utilisation of healthcare services. For each category factor, the table presents the percentage of the elderly participants who rated cost as low, moderate or high.

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Table 5.3: Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Cost on Utilisation of Healthcare Services

Factors	Categories	Cost Factor						Chi-square	p-value
		Low		Moderate		High			
		N	%	n	%	N	%		
Predisposing Factors	Gender								
	Female	51	28.80	54	30.50	72	40.70	2.761	0.251
	Male	68	37.00	48	26.10	68	37.00		
	Age								
	<70 years	63	33.00	54	28.30	74	38.70	0.0002	0.998
	≥ 70 years	56	32.90	48	28.20	66	38.80		
	Educational Level								
	< Secondary	63	28.00	62	27.60	100	44.40	9.507	**0.009***
	≥ Secondary	56	41.20	40	29.40	40	29.40		
	Employment Status								
	Unemployed	90	31.50	81	28.30	115	40.20	1.661	0.436
	Employed	29	38.70	21	28.00	25	33.30		
	Marital Status								
	Spouse	73	36.00	57	28.10	73	36.00	2.22	0.330
	No Spouse	46	29.10	45	28.50	67	42.40		
	Monthly Earnings								
Enabling Factors	< GHS500.00	63	28.40	72	32.40	87	39.20	7.236	**0.026***
	≥GHS500.00	56	40.30	30	21.60	53	38.10		
	Financial Assistance								
	Not Assisted	77	32.00	67	27.80	97	40.20	0.682	0.711
	Assisted	42	35.00	35	29.20	43	35.80		
	NHI Status								
	Uninsured	13	50.00	6	23.10	7	26.90	3.749	0.153
	Insured	106	31.60	96	28.70	133	39.70		
	Accompanied								
	Unaccompanied	64	36.80	47	27.00	63	36.20	2.243	0.326
	Accompanied	55	29.40	55	29.40	77	41.20		
	Chronic Diseases								
Need Factors	One	63	38.20	46	27.90	56	33.90	4.362	0.113
	Two or more	56	28.60	56	28.60	84	42.90		
	Frequency of Visits								
	Every Month	25	26.30	30	31.60	40	42.10	2.600	0.272
	More than a Month	94	35.30	72	27.10	100	37.60		
	OPD Attended								
	Primary	21	23.10	38	41.80	32	35.20	14.788	**0.005***
	Secondary	75	34.20	56	25.60	88	40.20		
	Tertiary	23	45.10	8	15.70	20	39.20		

*** Significant at 5%**
Source: Field Data (2017).

5.4.3. Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Cost on Utilisation of Healthcare Services

This sub-section presents results of the ordinal logistic regression indicating the association between predisposing, need factors of the elderly participants and cost on utilisation of healthcare services using Odds ratio. Enabling factors were not significantly associated with cost ($p > 0.05$).

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Association between Predisposing Factors and Cost on Utilisation of Healthcare Services

The elderly participants who obtained above secondary school education were 0.53 times less likely to rate cost on utilisation of healthcare services on a higher scale compared with the elderly participants with pre-secondary education (OR=0.53, 95% Cl=0.34-0.84). Adjusting for the effect of other variables, the elderly participants with secondary education and above were less likely to rate cost on utilisation of healthcare services on a higher scale compared with the elderly participants with pre-secondary education (p=0.006). However, gender, age, employment and marital status did not demonstrate any statistical significance at the multivariate level.

Association between Need Factors and Cost on Utilisation of Healthcare Services

Adjusting for other factors, an elderly participant with MCCs was 1.56 times more likely to rate cost on a higher scale compared with the elderly participant with one chronic condition (OR=1.56, 95% Cl=1.04-2.34). The results revealed that the number of chronic conditions suffered by the elderly persons was the only need factor, which was significantly associated with utilisation of healthcare services (p=0.030).

Table 5.4 details the results of the ordinal logistic regression showing the adjusted relationship between the socio-demographic characteristics of the elderly participants and cost on utilising healthcare services.

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Table 5.4: Ordinal logistic regression: Association between Predisposing and Need Factors and Cost on Utilisation of Healthcare Services

			95% CI for OR		
Factors	**Categories**	**OR**	**Lower**	**Upper**	**P-value**
Predisposing Factors	Gender				
	Female [Ref]				
	Male	0.89	0.58	1.36	0.588
	Age				
	<70 years [Ref]				
	≥70 years	1.01	0.66	1.53	0.969
	Educational level				
	<Secondary [Ref]				
	≥ Secondary	0.53	0.34	0.83	**0.006***
	Employment Status				
	Unemployed [Ref]				
	Employed	0.64	0.38	1.08	0.097
	Marital Status				
	Spouse [Ref]				
	No spouse	1.09	0.70	1.69	0.711
Enabling Factors	Monthly Earnings				
	<GHS500.00 [Ref]				
	≥ GHS 500.00	0.90	0.57	1.41	0.644
	Financial Assistance				
	Not Assisted [Ref]				
	Assisted	1.15	0.72	1.83	0.567
	NHI Status				
	Uninsured [Ref]				
	Insured	1.96	0.89	4.34	0.095
	Accompanied				
	Unaccompanied [Ref]				
	Accompanied	1.27	0.84	1.93	0.265
Need Factors	Chronic disease				
	One [Ref]				
	Two or more	1.56	1.04	2.34	**0.030***
	Frequency of visits				
	Every month [Ref]				
	More than a month	0.70	0.43	1.14	0.155
	OPD attended				
	Primary [Ref]				
	Secondary	1.20	0.72	2.00	0.495
	Tertiary	0.97	0.48	1.95	0.925

CI: Confidence Interval, *: Significant at 5%, [Ref:] Reference category.
Source: Field Data (2017).

5.4.4. Level of Association of Accessibility on Utilisation of Healthcare Services

This sub-section presents the level of association of accessibility on utilisation of healthcare services. Figure 5.3 indicates that majority of the elderly participants, 252 (69.8%) rated accessibility as low and 45 (12.5%) rated it as high. This implies that majority of the elderly participants found it easy accessing healthcare services.

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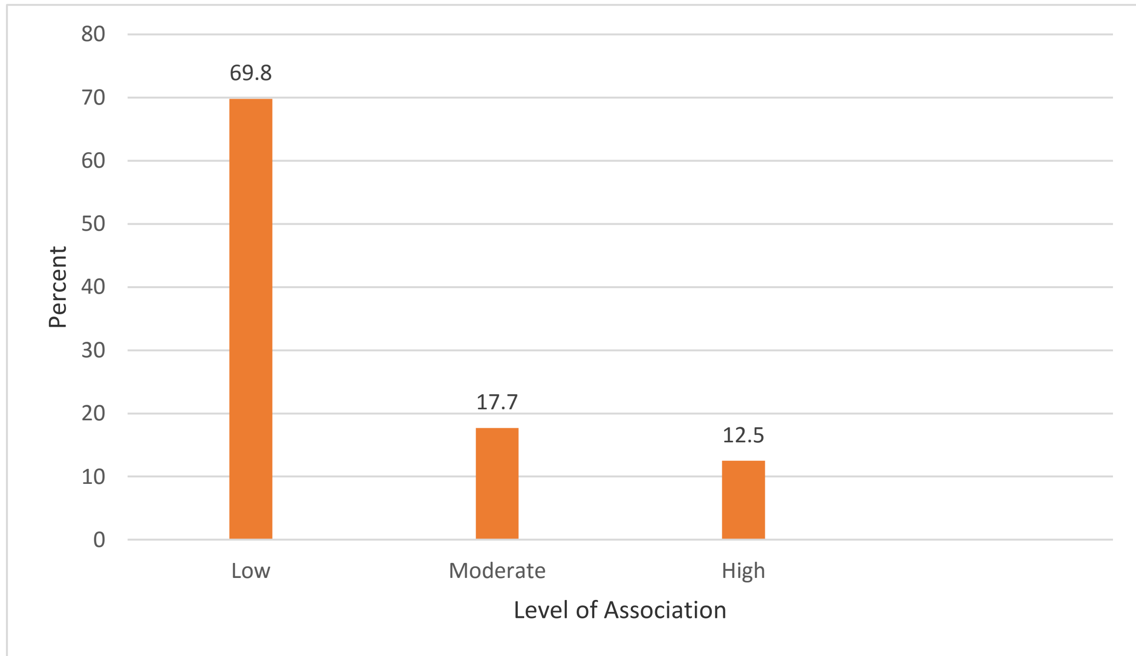

Figure 5.3: Level of Association of Accessibility on Utilisation of Healthcare Services.
Source: Field Data (2017).

5.4.5. Bivariate Analysis: Association between Predisposing and Need Factors and Accessibility on Utilisation of Healthcare Services

This sub-section presents the association between the predisposing, enabling and need factors of the elderly participants and accessibility on utilisation of healthcare services at KBTH.

Association between Predisposing Factors and Accessibility on Utilisation of Healthcare Services

The proportion of elderly participants with pre-secondary education who rated accessibility on utilisation of healthcare services as high, 33 (14.7%) was higher than those with secondary and above education, 12 (8.8%). There was a statistically significant association between level of education and accessibility on utilisation of healthcare services (χ^2 = 9.58; p=0.008). The results suggest that the pre-secondary school holders found it more difficult accessing the healthcare services than the elderly with above secondary school education. Apart from educational level, none of the other predisposing factors (gender, age, employment and marital status) was significantly associated with accessibility on utilisation of healthcare services.

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Association between Enabling Factors and Accessibility on Utilisation of Healthcare Services

In the case of enabling factors, the proportion of the elderly participants who were not accompanied to the OPDs who rated accessibility on utilisation of healthcare services as low, 132 (75.9%) was higher than those who were accompanied to the OPDs, 120 (64.2%). In addition, the proportion of elderly participants who were accompanied to the health facility who rated accessibility as high, 30 (16.0%) was higher than those who were not accompanied, 15 (8.6%) to the health facility. This implies that accessibility to the healthcare services was not feasible to persons who were accompanied. There was a statistically significant association between being accompanied and accessibility in the utilisation of healthcare services (χ^2 = 6.67; p=0.036). The remaining variables – monthly income, financial assistance and being a beneficiary of NHI were not significantly related to accessibility.

Association between Need Factors and Accessibility on Utilisation of Healthcare Services

The proportion of the elderly participants who attended a tertiary OPD rated the accessibility as low, 39 (76.5%) was the highest compared with the proportion of the elderly attending a secondary OPD, 145 (66.2%) and a primary OPD, 68 (74.7%). The proportion of the elderly participants who visited the tertiary OPDs viewed accessibility as the highest, 9 (17.6) compared with the primary, 13 (14.3%) and secondary OPDs 23 (10.5%). There was a statistically significant association between various OPDs attended by the elderly persons and accessibility on utilisation of healthcare services (χ^2 = 13.24; p = 0.010). The results suggest that, the elderly participants attending the tertiary OPDs viewed accessibility as easier than the elderly participants attending the primary and secondary OPDs.

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Table 5.5 shows the associations between the predisposing, enabling and need factors and accessibility on utilisation of healthcare services by the elderly participants. For each category factor, the table presents the proportion of the elderly participants who rated accessibility as low, moderate or high.

Table 5.5: Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Accessibility on Utilisation of Healthcare Services

		Accessibility		Factor					
Factors	**Categories**	**Low**		**Moderate**		**High**		**Chi-square**	**p-value**
		n	**%**	**n**	**%**	**n**	**%**		
Predisposing Factors	Gender								
	Female	122	68.9	31	17.5	24	13.6		
	Male	130	70.7	33	17.9	21	11.4	0.381	0.827
	Age								
	< 70 years	134	70.2	30	15.7	27	14.1		
	≥ 70 years	118	69.4	34	20.0	18	10.6	1.851	0.396
	Educational Level								
	<Secondary	144	64.0	48	21.3	33	14.7		
	≥ Secondary	108	79.4	16	11.8	12	8.8	9.584	**0.008***
	Employment Status								
	Employed	198	69.2	48	16.8	40	14.0		
	Unemployed	54	72.0	16	21.3	5	6.7	3.313	0.191
	Marital Status								
	Spouse	148	72.9	33	16.3	22	10.8		
	No spouse	104	65.8	31	19.6	23	14.6	2.192	0.334
Enabling Factors	Monthly Earnings								
	< GHS500.00	145	65.3	47	21.2	30	13.5		
	≥GHS500.00	107	77.0	17	12.2	15	10.8	6.029	0.048
	Financial Assistance								
	Not Assisted	162	67.2	51	21.2	28	11.6		
	Assisted	90	75.0	13	10.8	17	14.2	5.933	0.051
	NHI Status								
	Uninsured	14	53.8	5	19.2	7	26.9		
	Insured	238	71.0	59	17.6	38	11.3	5.756	0.056
	Accompanied								
	Unaccompanied	132	75.9	27	15.5	15	8.6		
	Accompanied	120	64.2	37	19.8	30	16.0	6.674	**0.036***
Need Factors	Chronic Disease								
	One	124	75.2	26	15.8	15	9.1		
	Two or more	128	65.3	38	19.4	30	15.3	4.686	0.096
	Frequency of Visits								
	Every Month	67	70.5	19	20.0	9	9.5		
	More than a Month	185	69.5	45	16.9	36	13.5	1.311	0.519
	OPD Attended								
	Primary	68	74.7	10	11.0	13	14.3		
	Secondary	145	66.2	51	23.3	23	10.5	13.249	**0.010***
	Tertiary	39	76.5	3	5.9	9	17.6		

*** Significant at 5%.**
Source: Field Data (2017).

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5.4.6. Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Accessibility on Utilisation of Healthcare Services

This sub-section presents ordinal logistic regression showing the association between the predisposing, enabling and need factors of the elderly and accessibility on utilisation of healthcare services using Odds ratio.

Association between Predisposing Factors and Accessibility on Utilisation of Healthcare Services

The elderly participants who obtained above secondary school education were 0.49 times less likely to rate accessibility on a higher scale compared with the elderly participants with pre-secondary education (OR= 0.49, 95% Cl 0.28-0.85). Adjusting for other variables, education was the only variable among the predisposing factors that was significantly associated with accessibility on utilisation of healthcare services (p = 0.11). The results indicate that accessibility was less of an association on the elderly with above secondary education.

Association between Enabling Factors and Accessibility on Utilisation of Healthcare Services

In the case of enabling factors, elderly participants who were accompanied to the health facility were 1.86 times more likely to rate accessibility on a higher scale than the elderly participants who visited the hospital by themselves (OR = 1.86, 95% Cl; 1.13 – 3.08). The elderly who were accompanied to the facility were significantly associated with accessibility (p = 0.016). Additionally, elderly participants who were beneficiaries of NHI were 0.42 times less likely to rate accessibility on a higher scale compared with the elderly who were non beneficiaries of NHI (OR=0.42, 95% Cl; 0.18-0.97). Being a beneficiary of NHI was significantly associated with accessibility (p=0.042). The implication of the results was that accessibility had more association on the elderly participants who were accompanied to the facility. In the case of elderly participants who were beneficiaries of NHI, the association of accessibility on utilisation of healthcare services was less of a problem.

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Association between Need Factors and Accessibility on Utilisation of Healthcare Services

The elderly participants who were diagnosed with MCCs were 1.75 times more likely to rate accessibility on a higher scale compared with the elderly participants who were diagnosed with one chronic disease (OR = 1.75, 95% Cl 1.08 – 2.84). Adjusting for other variables, MCCs was the only variable that was significantly associated with accessibility (p = 0.024) among the need factors. Table 5.6 illustrates the results of the ordinal logistic regression showing the adjusted relationship between the predisposing, enabling and need factors of the elderly participants and accessibility on utilisation of healthcare services.

Table 5.6: Ordinal logistic regression: Association between Predisposing, Enabling and Need Factors and Accessibility on Utilisation of Healthcare Services

			95% Cl for OR		
Factors	**Categories**	**OR**	**Lower**	**Upper**	**P-value**
Predisposing Factors	Gender				
	Female [Ref]				
	Male	1.08	0.65	1.79	0.774
	Age				
	<70 years [Ref]				
	≥70 years	0.89	0.54	1.47	0.659
	Educational Level				
	< Secondary [Ref]				
	≥ Secondary	0.49	0.28	0.85	**0.011***
	Employment Status				
	Unemployed [Ref]				
	Employed	0.76	0.41	1.42	0.390
	Marital Status				
	Spouse [Ref]				
	No spouse	1.08	0.65	0.81	0.758
Enabling Factors	Monthly Earnings				
	<GHS500.00[Ref]				
	≥GHS500.00	0.58	0.33	1.00	0.052
	Financial Assistance				
	Not Assisted [Ref]				
	Assisted	1.27	0.71	2.29	0.418
	NHI Status				
	Uninsured [Ref]				
	Insured	0.42	0.18	0.97	**0.042***
	Accompanied				
	Unaccompanied [Ref]				
	Accompanied	1.86	1.13	3.08	**0.016***
Need Factors	Chronic Disease				
	One [Ref]				
	Two or more	1.75	1.08	2.84	**0.024***
	Frequency of Visits				
	Every Month [Ref]				
	More than a month	1.13	0.64	2.03	0.67
	OPD Attended				
	Primary [Ref]				
	Secondary	1.56	0.83	2.91	0.168
	Tertiary	1.14	0.47	2.77	0.766

Cl: Confidence Interval *: Significant at 5%, [Ref:] Reference category.
Source: Field Data (2017).

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5.4.7. Level of Association of Waiting Time on Utilisation of Healthcare Services

This sub-section presents the level association of waiting time for utilisation of healthcare services. Figure 5.4, revealed that majority of the elderly participants 294 (81.4%) rated waiting time as high and 17 (4.7%) rated it as low.

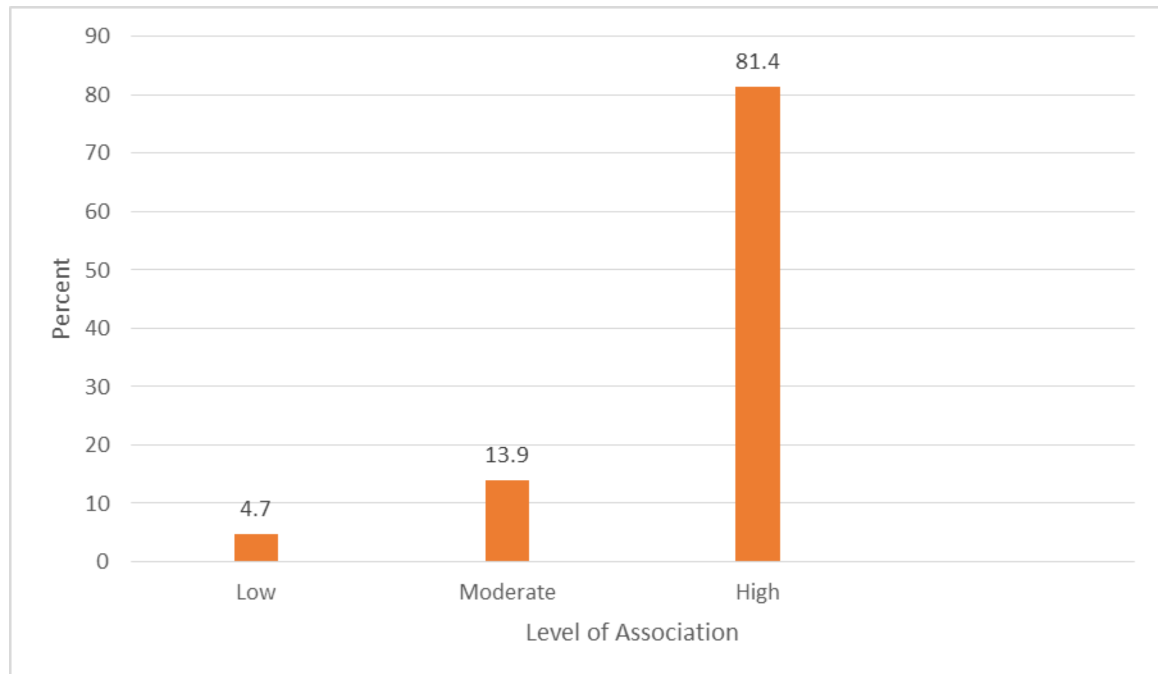

Figure 5.4: Level of Association of Waiting Time on Utilisation of Healthcare Services.
Source: Field Data (2017).

5.4.8. Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Waiting Time on Utilisation of Healthcare Services

This sub-section presents the bivariate results of the association between the need factors of the elderly and waiting time on utilisation of healthcare services at the KBTH. Predisposing and enabling factors were not significantly associated with waiting time on utilisation of healthcare services ($p>0.05$).

Association between Need Factors and Waiting Time on Utilisation of Healthcare Services

Among the need factors, the results revealed that only the elderly persons who attended the secondary OPDs were significantly associated with waiting time on utilisation of healthcare services (χ^2=15.64; p = 0.004). The elderly participants who attended the

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primary OPD rated waiting time as highest, 86 (94.5%) whilst those who attended the secondary OPDs rated the waiting time as lowest, 166 (75.8%) on utilisation of healthcare services.

Table 5.7 shows the bivariate results of the associations between predisposing, enabling and need factors and waiting time on utilisation of healthcare services. For each category factor, the table presents the percentage of the elderly participants who rated the association of waiting time as low, moderate or high.

Table 5.7: Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Waiting Time on Utilisation of Healthcare Services

		Waiting Time Factor							
Factors	**Categories**	**Low**		**Moderate**		**High**		**Chi-square**	**p-value**
		n	**%**	**n**	**%**	**n**	**%**		
Predisposing Factors	Gender								
	Female	9	5.1	25	14.1	143	80.8		
	Male	8	4.3	25	13.6	151	82.1	0.141	0.932
	Age								
	< 70 years	9	4.7	30	15.7	152	79.6		
	≥ 70 years	8	4.7	20	11.8	142	83.5	1.181	0.554
	Educational Level								
	<Secondary	11	4.9	35	15.6	179	79.6		
	≥ Secondary	6	4.4	15	11.0	115	84.6	1.555	0.459
	Employment Status								
	Employed	15	5.2	39	13.6	232	81.1		
	Unemployed	2	2.7	11	14.7	62	82.7	0.902	0.637
	Marital Status								
	Spouse	6	3.0	32	15.8	165	81.3		
	No spouse	11	7.0	18	11.4	12	81.6	4.255	0.119
Enabling Factors	Monthly Earnings								
	< GHS500.00	9	4.1	34	15.3	179	80.6		
	≥GHS500.00	8	5.8	16	11.5	115	82.7	1.465	0.481
	Financial Assistance								
	Not Assisted	12	5.0	37	15.4	192	79.7		
	Assisted	5	4.2	13	10.8	102	85.0	1.573	0.455
	NHI Status								
	Uninsured	0	0.0	2	7.7	24	92.3		
	Insured	17	5.1	48	14.3	270	80.6	2.493	0.288
	Accompanied								
	Unaccompanied	9	5.2	25	14.4	140	80.5		
	Accompanied	8	4.3	25	13.4	154	82.4	0.258	0.879
Need Factors	Chronic Disease								
	One	8	4.8	22	13.3	135	81.8		
	Two or more	9	4.6	28	14.3	159	81.1	0.077	0.962
	Frequency of Visits								
	Every Month	4	4.2	8	8.4	83	87.4		
	More than a Month	13	4.9	42	15.8	211	79.3	3.368	0.186
	OPD Attended								
	Primary	2	2.2	3	3.3	86	94.5		
	Secondary	12	5.5	41	18.7	166	75.8	15.642	**0.004***
	Tertiary	3	5.9	6	11.8	42	82.4		

***: Significant at 5%.**
Source: Field Data (2017).

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5.4.9. Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Waiting Time on Utilisation of Healthcare Services

This sub-section shows the results of need factors and their association with waiting time on utilisation of healthcare services using ordinal logistic regression. Predisposing and enabling factors did not show any statistically significant association with waiting time on utilisation of healthcare services ($p>0.05$).

Association between Need Factors and Waiting Time on Utilisation of Healthcare Services

The elderly participants who attended secondary and tertiary OPDs were 0.15 and 0.19 times respectively less likely to rate waiting time on a higher scale compared with the elderly participants who attended primary OPD (OR = 0.15, 95% Cl 0.05-0.42; OR = 0.19, 95% Cl, 0.06-0.64) respectively. The secondary and tertiary OPDs were significantly associated with waiting time ($p<0.001$; $p=0.008$) respectively.

Table 5.8 portrays the results of the ordinal logistic regression showing the adjusted relationship between predisposing, enabling and need factors and the association of waiting time on utilising healthcare services.

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Table 5.8: Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Waiting Time on Utilisation of Healthcare Services

Factors	Categories	OR	95% Cl for OR Lower	Upper	P-value
Predisposing Factors	Gender				
	Female [Ref]				
	Male	1.08	0.58	2.02	0.806
	Age				
	<70 years [Ref]				
	≥70 years	1.35	0.74	2.46	0.323
	Educational level				
	< Secondary [Ref]				
	≥ Secondary	1.46	0.77	2.76	0.243
	Employment Status				
	Unemployed [Ref]				
	Employed	1.27	0.60	1.69	0.525
	Marital Status				
	Spouse [Ref]				
	No spouse	0.75	0.41	1.38	0.352
Enabling Factors	Monthly Earnings				
	<GHS500.00[Ref]				
	≥GHS500.00	1.13	0.61	2.10	0.692
	Financial Assistance				
	Not Assisted [Ref]				
	Assisted	1.07	0.53	2.16	0.856
	NHI Status				
	Uninsured [Ref]				
	Insured	0.27	0.06	1.23	0.091
	Accompanied				
	Unaccompanied [Ref]				
	Accompanied	1.12	0.62	2.03	0.701
Need factors	Chronic Disease				
	One [Ref]				
	Two or more	1.13	0.63	2.03	0.674
	Frequency of Visits				
	Every Month [Ref]				
	More than a Month	0.88	0.41	1.86	0.730
	OPD Attended				
	Primary [Ref]				
	Secondary	0.15	0.05	0.42	**<0.001***
	Tertiary	0.19	0.06	0.64	**0.008***

Cl: Confidence Interval, *: Significant at 5%, [Ref:] Reference category.
Source: Field Data (2017).

5.4.10. Level of Association of Information on Utilisation of Healthcare Services

This sub-section describes the level of Association of information on utilisation of healthcare services. Three hundred and five 305, (84.5%) elderly participants rated information as low. However only (9.7%) elderly viewed information as not associated with utilisation of healthcare services. A summary of the results is shown in figure 5.5.

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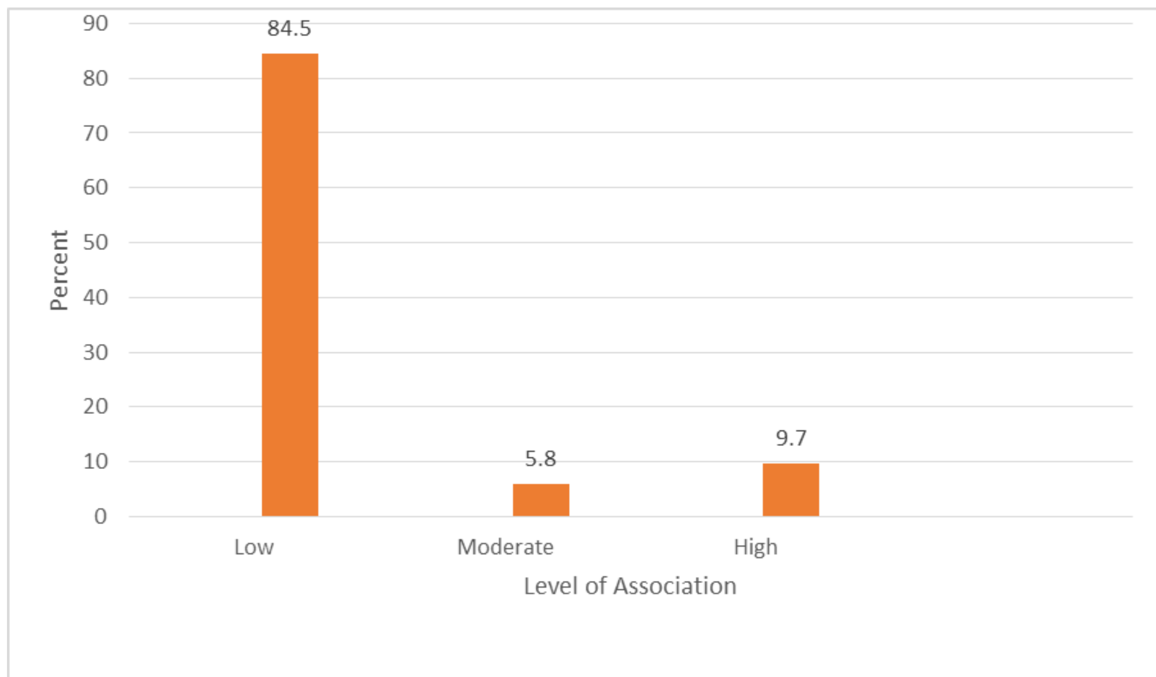

Figure 5. 5: Level of Association of Information on Utilisation of Healthcare Services.
Source: Field Data (2017).

5.4.11. Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Information on Utilisation of Healthcare Services

This sub-section presents the bivariate association between predisposing and need factors and information on utilisation of healthcare services at KBTH. Enabling factors were not significantly associated with information on utilisation of healthcare services (p>0.05).

Association between Predisposing Factors and Information on Utilisation of Healthcare Services

The proportion of the female participants who rated information as low, 147 (83.1%) was lower than the proportion of male participants, 158 (85%) who rated it as low. The proportion of the elderly males, 10 (5.4%) who rated information as high was lower than the elderly female participants who rated information as high, 25 (14.1%). This was an indication that the female elderly participants viewed information as a factor that did not boost utilisation of healthcare services. There was a statistically significant association between gender and information (χ^2=12.45; p=0.02). Among the predisposing factors,

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gender was the only variable that was significantly associated with information. Age, educational level, spousal and educational status were not significantly associated with information on utilisation of healthcare services

Association between Need Factors and Information on Utilisation of Healthcare Services

The proportion of the elderly participants who attended the secondary OPDs, 9 (4.1%) was the least who rated information as being high, and those who attended the primary OPD, 68 (74.7%) was the least who rated information as being low. There was a statistically significant association between elderly persons who attended the primary, secondary and tertiary OPDs and information on utilisation of healthcare services (χ^2= 28.94; p<0.001). Chronic conditions and frequencies that the elderly visited the hospital were not significantly associated with information on utilisation of healthcare services.

Table 5.9 shows the bivariate results of the relationships between predisposing, enabling and need factors and information on utilisation of healthcare services. For each category factor, the table presents the percentage of the elderly participants who rated information as low, moderate or high.

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Table 5.9: Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Information on Utilisation of Healthcare Services

Factors	Categories	Information Factor						Chi-square	P-value
		Low		Moderate		High			
		n	%	n	%	n	%		
Predisposing Factors	Gender								
	Female	147	83.1	5	2.8	25	14.1	12.456	**0.002***
	Male	158	85.9	16	8.7	10	5.4		
	Age								
	<70 years	159	83.2	13	6.8	19	9.9	0.783	0.676
	≥ 70 years	146	85.9	8	4.7	16	9.4		
	Educational Level								
	< Secondary	187	83.1	15	6.7	23	10.2	1.046	0.593
	≥ Secondary	29	64.4	5	11.1	11	24.4		
	Employment Status								
	Unemployed	244	85.3	14	4.9	28	9.8	2.136	0.344
	Employed	61	81.3	7	9.3	7	9.3		
	Marital Status								
	Spouse	178	87.7	12	5.9	13	6.4	5.751	0.056
	No Spouse	127	80.4	9	5.7	22	13.9		
	Monthly Earnings								
Enabling Factors	< GHS 500.00	182	82.0	14	6.3	26	11.7	3.083	0.214
	≥ GHS 500.00	123	88.5	7	5.0	9	6.5		
	Financial Assistance								
	Not Assisted	208	86.3	10	4.1	23	9.5	3.768	0.152
	Assisted	97	80.8	11	9.2	12	10.0		
	NHI Status								
	Uninsured	24	92.3	1	3.8	1	3.8	1.379	0.502
	Insured	281	83.9	20	6.0	34	10.1		
	Accompanied								
	Unaccompanied	148	85.1	10	5.7	16	9.2	0.102	0.950
	Accompanied	157	84.0	11	5.9	19	10.2		
	Chronic Disease								
Need Factors	One	140	84.8	10	6.1	15	9.1	0.15	0.928
	Two or more	165	84.2	11	5.6	20	10.2		
	Frequency of Visits								
	Every Month	76	80.0	7	7.4	12	12.6	1.987	0.370
	More than a Month	229	86.1	14	5.3	23	8.6		
	OPD Attended								
	Primary	68	74.7	3	3.3	20	22.0		
	Secondary	192	87.7	18	8.2	9	4.1	28.94	<0.001*
	Tertiary	45	88.2	0	0.0	6	11.8%		

***Significant at 5%.**
Source: Field Data (2017).

5.4.12. Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Information on Utilisation of Healthcare Services

This segment presents results of ordinal logistic regression indicating the association between the predisposing, enabling and need factors and information on utilisation of

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healthcare services using Odds ratio. The results revealed that none of the variables in the predisposing, enabling and need factors was significantly associated with information on utilisation of healthcare services ($p>0.05$).

Table 5.10 displays the results of the ordinal logistic regression showing the relationship between the predisposing, enabling and need factors and information on utilisation of healthcare services.

Table 5.10: Ordinal Logistic Regression: Association between Predisposing, Enabling and Need factors and Information on Utilisation of Healthcare Services

			95% CI for OR		
Factors	**Categories**	**OR**	**Lower**	**Upper**	**P-value**
Predisposing Factors	Gender				
	Female [Ref]				
	Male	0.90	0.47	1.72	0.753
	Age				
	<70 years [Ref]				
	≥70 years	0.85	0.45	1.6	0.609
	Educational Level				
	< Secondary [Ref]				
	≥ Secondary	1.05	0.53	2.07	0.897
	Employment Status				
	Unemployed [Ref]				
	Employed	1.17	0.56	2.44	0.668
	Marital Status				
	Spouse [Ref]				
	No Spouse	1.62	0.85	3.09	0.141
	Monthly Earnings				
	<GHS500.00[Ref]				
	≥GHS500.00	0.69	0.35	1.39	0.303
	Financial assistance				
	Not Assisted [Ref]				
Enabling Factors	Assisted	1.63	0.82	3.22	0.164
	NHI Status				
	Uninsured [Ref]				
	Insured	2.18	0.48	9.87	0.313
	Accompanied				
	Unaccompanied [Ref]				
	Accompanied	1.22	0.65	2.3	0.539
	Chronic disease				
	One [Ref]				
	Two or More	1.18	0.65	2.16	0.586
	Frequency of Visits				
	Every month [Ref]				
Need factors	More than a Month	0.97	0.48	1.95	0.932
	OPD Attended				
	Primary [Ref]				
	Secondary	0.49	0.24	1.01	0.052
	Tertiary	0.55	0.19	1.58	0.268

CI: Confidence Interval, *: Significant at 5%, [Ref:] Reference category.
Source: Field Data (2017).

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5.4.13. Level of Association of Health Personnel Attitude on Utilisation of Healthcare Services

This sub-section presents results of the level of association of health personnel attitude on utilisation of healthcare. Majority of the elderly participants, 308 (85.3%) rated heath personnel attitude as high. However, 13 (3.6%) elderly participants rated it as low. The results indicated that health personnel attitude was a factor that did not promote utilisation of healthcare services. A summary is shown in figure 5.6.

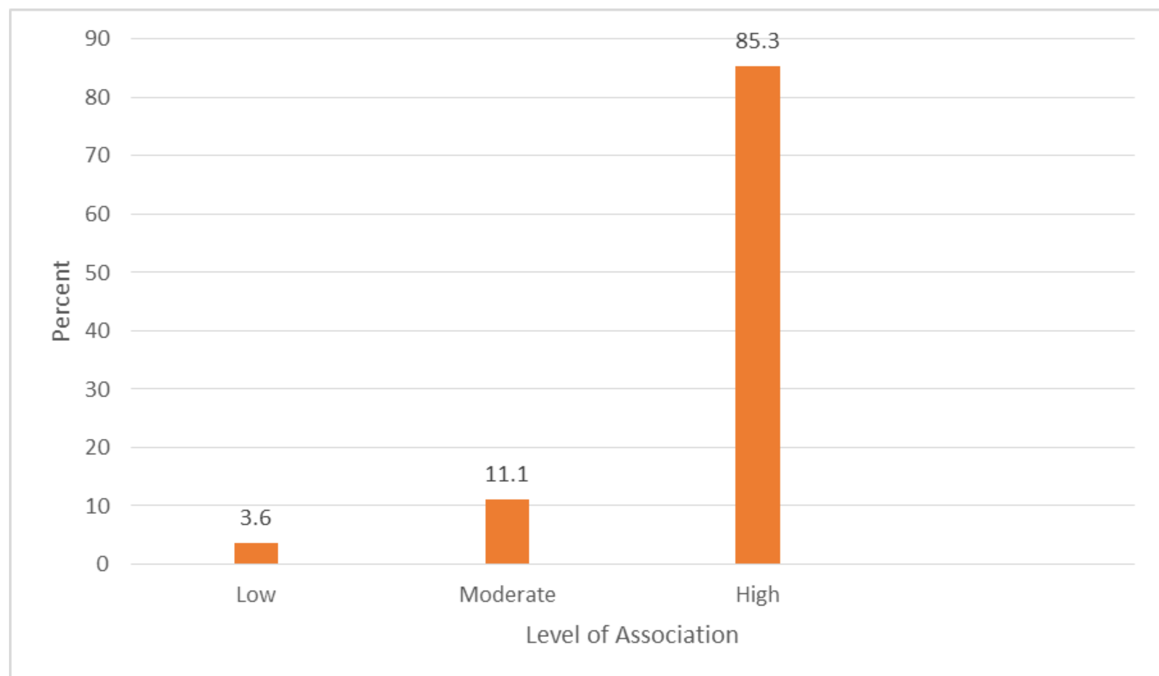

Figure 5. 6: Level of Association of Health Personnel Attitude on Utilisation of Healthcare services. Source: Field Data (2017).

5.4.14. Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Health Personnel Attitude on Utilisation of Healthcare Services

This sub-section presents the bivariate results of the association between the predisposing, enabling and need factors and health personnel attitude on utilisation of healthcare services at KBTH. The chi-square test did not show any significant association between the health personnel attitude and the predisposing and enabling factors ($p>0.05$).

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Association between Need Factors and Health Personnel Attitude on Utilisation of Healthcare Services

The results revealed that, among the need factors, only the proportion of the elderly participants who attended the primary, secondary and tertiary OPDs showed a significant association with the health personnel attitude (χ^2 = 27.99; $p<0.001$). The proportion of the elderly participants who attended the primary OPD and rated health personnel attitude as low was the highest, 9 (9.9%) compared with those who attended the tertiary, 0 (0.0%) and secondary OPDs, 4 (1.4%). The proportion of the elderly who attended the primary OPD rated health personnel attitude as high was lowest, 63 (69.2%) compared with those who attended the secondary, 198 (90.4%) and tertiary OPD 47 (92%). The results suggested that, generally the health personnel attitude were not friendly in utilisation of healthcare services at all the OPDs.

Table 5.11 shows the bivariate results of the association between predisposing, enabling and need factors and health personnel attitude on utilisation of healthcare services. For each category factor, the table presents the percentage of the elderly participants who rated health personnel attitude as low, moderate or high.

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Table 5. 11: Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Health Personnel Attitude on Utilisation of Healthcare Services

Factors	Categories	Health Personnel Responses Factor						Chi-square	p-valve
		Low		Moderate		High			
		n	%	n	%	n	%		
Predisposing Factors	Gender								
	Female	7	4.0	22	12.4	148	83.6		
	Male	6	3.3	18	9.8	160	87.0	0.809	0.667
	Age								
	< 70 years	5	2.6	21	11.0	165	86.4		
	≥ 70 years	8	4.7	19	11.2	143	84.1	1.146	0.546
	Educational Level								
	<Secondary	9	4.0	28	12.4	188	83.6		
	≥ Secondary	4	2.9	12	8.8	120	88.2	1.484	0.476
	Employment Status								
	Unemployed	8	2.8	35	12.2	243	85.0		
	Employed	5	6.7	5	6.7	65	86.7	4.155	0.125
	Marital Status								
	Spouse	6	3.0	23	11.3	174	86.7		
	No Spouse	7	4.4	17	10.8	134	84.8	0.571	0.752
Enabling Factors	Monthly Earnings								
	<GHS 500.00	10	4.5	28	12.6	184	82.9		
	≥GHS 500.00	3	2.2	12	8.6	124	89.2	2.929	0.231
	Financial Assistance								
	Not Assisted	8	3.3	28	11.6	205	85.1		
	Assisted	5	4.2	12	10.0	103	85.8	0.355	0.838
	NHI Status								
	Uninsured	0	0.0	3	11.5	23	88.5		
	Insured	13	3.9	37	11.0	285	85.1	1.047	0.593
	Accompanied								
	Unaccompanied	4	2.3	15	8.6	155	89.1		
	Accompanied	9	4.8	25	13.4	153	81.8	3.973	0.137
Need Factors	Chronic Disease								
	One	8	4.8	20	12.1	137	83.0		
	Two or more	5	2.6	20	10.2	171	86.1	1.797	0.407
	Frequency of Visits								
	Every Month	6	6.3	10	19.5	79	83.2		
	More than a Month	7	2.6	30	11.3	229	86.1	2.745	0.254
	OPD Attended								
	Primary	9	9.9	19	20.9	63	69.2		
	Secondary	4	1.8	17	7.8	198	90.4		
	Tertiary	0	0.0	4	7.8	47	92.2	27.996	**<0.001***

***: Significant at 5%.**
Source: Field Data (2017).

5.4.15. Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Health Personnel Attitude on Utilisation of Healthcare Services

This segment presents the results of the ordinal logistic regression indicating the association between the Predisposing, enabling and need factors of the elderly participants and health personnel attitude on utilisation of healthcare services using Odds ratio. Predisposing factors were not significantly associated with health personnel attitude ($p>0.05$).

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Association between Enabling Factors and Health Personnel Attitude on Utilisation of Healthcare Services

Among the enabling factors, the elderly who were accompanied to the health facility were 0.49 times less likely to rate the health personnel attitude on utilisation of healthcare services on a higher scale compared with those who were unaccompanied (OR = 0.49, 95% Cl; 0.25-0.97). Adjusting for the effects of other factors, accompanied by a person was the only variable among the enabling factors that was significantly associated with health personnel attitude on utilisation of healthcare services.

Association between Need Factors and Health Personnel Attitude on Utilisation of Healthcare Services

The elderly participants who attended the secondary OPDs were 5.11 times more likely to rate the health personnel attitude on influencing on a higher scale than those who attended the primary OPD, (OR = 5.11, 95% Cl; 2.40-10.88). The elderly who attended the secondary OPD was significantly associated with health personnel attitude on utilisation of healthcare services ($p<0.001$). Similarly, the elderly participants who attended the tertiary OPD were 8.14 times more likely to rate it on a higher scale compared with the elderly participants who utilised the primary OPD (OR=8.14, 95% Cl; 2.40-27.55). The elderly participants who utilised the tertiary OPD were significantly associated with health personnel attitude on utilisation of healthcare services ($p<0.001$). Frequency of visits and number of chronic diseases diagnosed were not significantly associated with health personnel attitude on utilisation of healthcare services.

Table 5.12 details the results of the ordinal logistic regression showing the adjusted relationship between the predisposing, enabling and need factors and health personnel attitude on utilisation of healthcare services.

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Table 5.12: Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Health Personnel Attitude on Utilisation of Healthcare Services

			95% Cl for OR		
Factors	**Categories**	**OR**	**Lower**	**Upper**	**P-value**
Predisposing Factors	Gender				
	Female [Ref]				
	Male	1.27	0.64	2.50	0.493
	Age				
	<70 years [Ref]				
	≥70 years	0.77	0.40	1.50	0.447
	Educational Level				
	< Secondary [Ref]				
	≥ Secondary	0.97	0.47	2.00	0.929
	Employment Status				
	Unemployed [Ref]				
	Employed	1.01	0.44	2.29	0.982
	Marital Status				
	Spouse [Ref]				
	No spouse	1.55	0.78	3.07	0.213
Enabling Factors	Monthly Earnings				
	<GHS500.00[Ref]				
	≥GHS500.00	1.21	0.58	2.50	0.609
	Financial Assistance				
	Not Assisted [Ref]				
	Assisted	1.02	0.49	2.13	0.954
	NHI Status				
	Uninsured [Ref]				
	Insured	1.23	0.33	4.53	0.759
	Accompanied				
	Unaccompanied [Ref]				
	Accompanied	0.49	0.25	0.97	**0.040***
Need factors	Chronic Disease				
	One [Ref]				
	Two or More	1.26	0.67	2.35	0.472
	Frequency of Visits				
	Every Month [Ref]	0.65	0.31	1.38	0.264
	More than a Month				
	OPD Attended				
	Primary [Ref]				
	Secondary	5.11	2.40	10.88	**<0.001***
	Tertiary	8.14	2.40	27.55	**< 0.001***

Cl: Confidence Interval, *: Significant at 5%, [Ref:] Reference category.
Source: Field Data (2017).

5.4.16. Level of Association of Physical Support on Utilisation of Healthcare Services

This sub-section presents results of the level of physical support on utilisation of healthcare services. One hundred and forty-one, 141 (39.1%) elderly participants rated the physical support as low. The results indicated that majority of the elderly viewed physical support as not aiding in the utilisation of healthcare services. A summary on the results is shown in figure 5.7.

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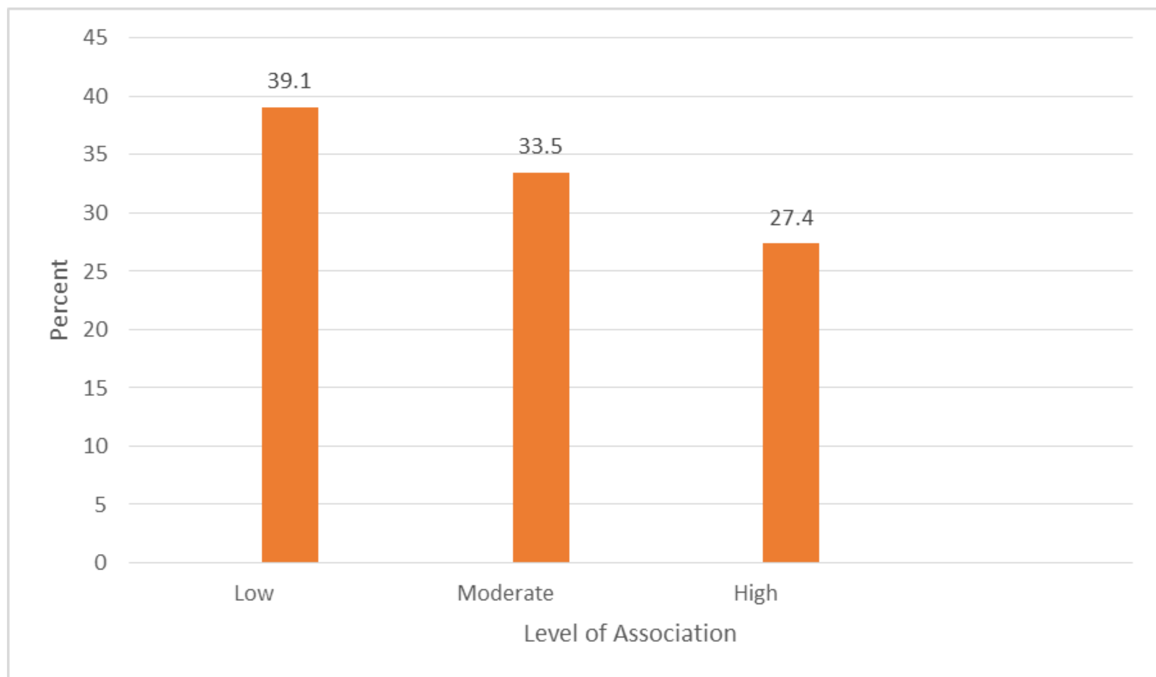

Figure 5. 7: Level of Association of Physical Support on Utilisation of Healthcare Services.
Source: Field Data (2017).

5.4.17. Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Physical Support on Utilisation of Healthcare Services

This sub-section presents the results of the analysis on the bivariate relationship between the predisposing, enabling and need factors of the elderly and physical support on utilisation of healthcare services at KBTH. Enabling factors were not significantly associated with physical support on utilisation of healthcare services ($p>0.05$).

Association between Predisposing Factors and Physical Support on Utilisation of Healthcare Services

The proportion of the elderly females, 78 (44.1%) who rated physical support as low was higher than the proportion of elderly males, 63 (34.2%). The proportion of elderly males, 61 (33.2%) who rated physical support as high was higher than the elderly females, 38 (22.5%). The results suggest that the elderly males viewed physical support as a factor on utilisation of healthcare services more than their female counterparts. The results indicated that, the elderly male participants viewed physical support at the facility as not

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encouraging utilisation of healthcare services. The chi-square test results showed that there was a significant association between gender and physical support on utilisation of healthcare services (χ^2= 6.814; p=0.033). The other variables (age, education, employment and marital status) showed no significant association with physical support on utilisation of healthcare services.

Association between Need Factors and Physical Support on Utilisation of Healthcare Services

The proportion of the elderly participants, 49 (51.6%) who visited the health facility monthly who rated physical support as low was higher than the proportion of elderly participants, 92 (34.6%) who visited the health facility every two or more months. In addition, the proportion of the elderly, 21 (22.1%) who visited the health facility every month who rated physical support as high was lesser than the elderly participants, 78 (29.3%) who visited the facility more than once every month. The results were indications that the elderly participants who visited the hospital every two or more months viewed the physical support as aiding utilisation of healthcare services more than the elderly participants who visited the facility monthly. This implied that the elderly who visited the facility every two or more months viewed the physical support as a factor not aiding in the utilisation of healthcare services. The chi-square test results showed a significant association between frequency of visits and physical support (χ^2=8.5; p=0.014). The remaining variables (chronic disease and OPD attended) did not show any significant association with physical support.

Table 5.13 shows the bivariate associations between the predisposing, enabling and need factors and physical support on utilisation of healthcare services. For each category factor, the table presents the percentage of the elderly participants who rated physical support as low, moderate or high.

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Table 5.13: Bivariate Analysis: Association between Predisposing, Enabling and Need Factors and Physical Support on Utilisation of Healthcare Services

Factors	Categories	Physical Support Factor						Chi-square	p-value
		Low		Moderate		High			
		n	%	n	%	n	%		
Predisposing Factors	Gender								
	Female	78	44.1	61	34.5	38	21.5		
	Male	63	34.2	60	32.6	61	33.2	6.814	0.033*
	Age								
	< 70 years	82	42.9	50	30.4	51	26.7		
	≥ 70 years	59	34.7	63	37.1	48	28.2	2.837	0.242
	Educational status								
	< Secondary	92	40.9	72	32.0	61	27.1		
	≥ Secondary	49	36.0	49	36.0	38	27.9	0.944	0.624
	Employment status								
	Unemployed	112	39.2	100	35.0	74	25.9		
	Employed	29	38.7	21	28.0	25	33.3	2.069	0.355
	Marital status								
	Spouse	76	37.4	65	32.0	62	30.5		
	No spouse	65	41.1	56	35.4	37	23.4	2.267	0.322
Enabling Factors	Monthly Earnings								
	<GHS500.00	89	40.1	72	32.4	61	27.5		
	≥ GHS500.00	52	37.4	49	35.3	38	27.3	0.361	0.835
	Financial Assistance								
	Not Assisted	98	40.7	84	34.9	59	24.5		
	Assisted	43	35.8	37	39.8	40	33.3	3.154	0.207
	NHI Status								
	Uninsured	13	50.0	5	19.2	8	30.8		
	Insured	128	38.2	116	34.6	91	27.2	2.679	0.262
	Accompanied								
	Unaccompanied	60	34.5	59	33.9	55	31.6		
	Accompanied	81	43.3	62	33.2	44	23.5	3.961	0.138
Need Factors	Chronic Disease								
	One	65	39.4	52	31.5	48	29.1		
	Two or more	76	38.8	69	35.2	51	26.0	0.68	0.712
	Frequency of Visits								
	Every month	49	51.6	25	26.3	21	22.1		
	More than a Month	92	34.6	96	36.1	78	29.3	8.5	0.014*
	OPD Attended								
	Primary	46	50.5	26	28.6	19	20.9		
	Secondary	73	33.3	78	35.6	68	31.1	8.838	0.065
	Tertiary	22	43.1	17	33.3	12	23.5		

***: Significant at 5%.**
Source: Field Data (2017).

5.4.18. Ordinal Logistic Regression: Association between Predisposing, Enabling and Need Factors and Physical Support on Utilisation of Healthcare Services

This segment presents results of the ordinal logistic regression indicating the association between the predisposing, enabling and need factors and physical support on utilisation of healthcare services using Odds ratio. Unfortunately none of the factors (predisposing, enabling and need) were significantly associated with physical support on utilisation of healthcare services (p>0.05).

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Table 5.14 displays the results of the ordinal logistic regression showing the adjusted association between the demographic characteristics of the elderly participants and physical support on utilisation of healthcare services.

Table 5.14: Ordinal Logistic Regression: Association between Predisposing, Enabling and Need factors and Physical Support on Utilisation of Healthcare Services

			95% Cl for OR		
Factors	**Categories**	**OR**	**Lower**	**Upper**	**P-value**
Predisposing Factors	Gender				
	Female [Ref]				
	Male	1.33	0.86	2.05	0.194
	Age				
	<70 years [Ref]				
	≥70 years	1.29	0.85	1.97	0.229
	Educational Level				
	< Secondary [Ref]				
	≥ Secondary	1.01	0.64	1.57	0.979
	Employment Status				
	Unemployed [Ref]				
	Employed	1.25	0.73	2.14	0.412
	Marital Status				
	Spouse [Ref]				
	No spouse	0.98	0.63	1.53	0.936
Enabling Factors	Monthly Earnings				
	<GHS500.00[Ref]				
	≥GHS500.00	0.88	0.56	1.37	0.566
	Financial Assistance				
	Not Assisted [Ref]				
	Assisted	1.31	0.82	2.09	0.256
	NHI Status				
	Uninsured [Ref]				
	Insured	1.30	0.58	2.88	0.526
	Accompanied				
	Unaccompanied [Ref]				
	Accompanied	0.77	0.51	1.17	0.222
Need Factors	Chronic disease				
	One [Ref]				
	Two or More	0.91	0.61	1.37	0.655
	Frequency of Visits				
	Every Month [Ref]				
	More than a Month	1.57	0.95	2.59	0.076
	OPD Attended				
	Primary [Ref]				
	Secondary	1.66	0.98	2.83	0.061
	Tertiary	1.30	0.64	2.61	0.468

Cl: Confidence Interval, *: Significant at 5%, [Ref:] Reference category.
Source: Field Data (2017).

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5.5. Health Provider Factors and Quality of Healthcare Services

This sub-section presents results on the quality of healthcare accessed by the elderly participants who attended the KBTH. The first sub-section shows the components of quality of care, which is followed by the level of quality of healthcare accessed and results of the bivariate analysis of the relationship between socio-demographic characteristics and quality of care. Additionally, results of the Generalised Linear Model (GLM) show the relationship between the socio-demographic characteristics and quality of care.

5.5.1. Components of Quality of Healthcare Services

In this sub-section, the study presents the percentage of the elderly participants who agreed (agree and strongly agreed) to a set of quality of care based on health provider factors. Each statement had a five point Likert scale responses (strongly disagree, disagree, neutral, agree and strongly agree) based on literature (Jamous et al., 2014). Due to the nature of the questions, the higher the percentage of the agreed items on quality of health provider factors, the lower the quality of healthcare accessed by the elderly participants. Table 5.15 shows the details of the percentage of the elderly participants who agreed to the quality of health provider factors.

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Table 5.15: Components of Quality of Healthcare Services

Category Health provider factors	Number (out of 361)	Percentage that agreed %	Confidence 95% CI	Interval
			Lower	*Upper*
Waiting areas are spacious and comfortable	203	56.23	51.1	61.3
There are enough consulting rooms at the unit	223	61.77	56.8	66.8
Have confidence in the doctors	334	92.52	89.8	95.2
Have confidence in the nurses	310	85.87	82.3	89.5
There are enough nurses at the unit	208	57.62	52.5	62.7
There are enough doctors at the unit	176	48.75	43.6	53.9
You are able to access your medication at the unit	137	37.95	32.9	43.0
You are able to go to other units to perform investigation	238	65.93	61.0	70.8
The unit is accessible	282	78.12	73.9	82.4
The waiting time at the unit is excellent	65	18.01	14.0	22.0
The waiting list is excellent at the unit	54	14.96	11.3	18.6
The doctors involve you in decisions concerning your treatment	320	88.64	85.4	91.9
The doctors listen carefully to you and then writes	341	94.46	92.1	96.8
Pharmacist gives clear instructions about drugs	322	89.20	86.0	92.4
The OPD waiting room is conducive	237	65.65	60.8	70.5
The doctor is not responsive to your concern	320	88.64	85.4	91.9
The sitting arrangements are comfortable enough for you	213	59.00	53.9	64.1
The floor is non-slippery and well maintained	311	86.15	82.6	89.7
The furniture and fittings are well arranged to reduce possible falls or injuries	214	59.28	54.2	64.3
NHIS beneficiary is able to access healthcare services at the unit	249	68.98	64.2	73.8
NHIS beneficiary is able to have their drugs covered	117	32.41	27.6	37.2
NHIS beneficiary is able to have their investigation(s) covered	84	23.27	18.9	27.6
Nurses provided physical support to you at the unit	157	43.5	38.4	48.6
Doctors provided physical support to you at the unit	150	41.6	36.5	46.6
Family members provided physical support to you at the unit	158	43.8	38.6	48.9
Other staff members provided physical support to you at the unit	148	41.0	35.9	46.1

CI: Confidence Interval.
Source: Field Data (2017).

5.5.2. Level of Quality of Healthcare Services

This section presents results of the quality of healthcare services accessed by the elderly participants at the KBTH. Majority of the elderly participants, 305 (84.5%) rated the quality of healthcare services as moderate; 55 (15.2%) rated it as high, and 1(0.3%) rated it as low. This was an indication that, the elderly participants viewed the quality of healthcare services accessed at the KBTH as average. The results are detailed in figure 5.8.

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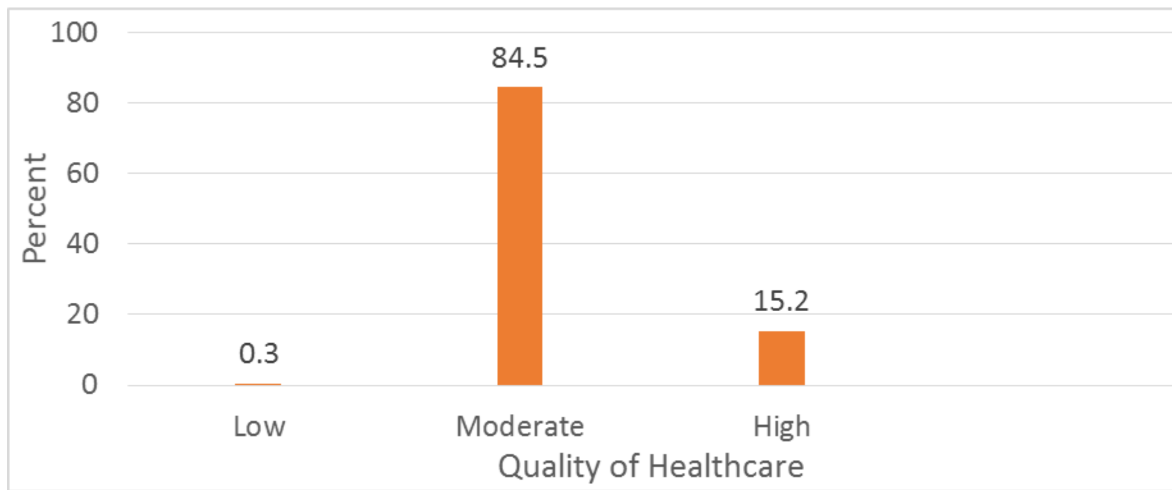

Figure 5.8: Level of Quality of Healthcare Services.
Source: Field Data, (2017).

5.5.3. Bivariate Analysis: Association between Socio-Demographic Characteristics and Quality of Healthcare Services

This sub-section presents results of the bivariate analysis of the association between socio-demographic characteristics and quality of healthcare services. The elderly participants who were married and those who were not married rated the average quality of healthcare services the same 68.65. Marital status was significantly associated with quality of healthcare services ($F=0.995$; $p<0.001$). The result is an indication that, the elderly persons viewed quality of healthcare services the same. The elderly participants diagnosed with one chronic disease rated the quality of healthcare services the highest with an average of 69.54. In the case of the elderly participants who were diagnosed with four chronic conditions, they rated quality lowest, with an average of 65.5. The chronic conditions were significantly associated with quality of healthcare ($F=2.97$; $p=0.032$). This result revealed that the greater the number of chronic diseases diagnosed, the lower the average quality ratings of the healthcare services accessed by the elderly. There was a decreasing trend in the rating of quality of healthcare services with increasing number of chronic diseases.

The elderly participants who attended the primary OPD rated the quality of healthcare highest, with an average of 70.9. The elderly participants who attended the tertiary OPDs,

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rated the quality of healthcare lowest, with an average of 64.8. The results indicated that there was a statistically significant difference in the quality of healthcare with decreasing trend in quality and increasing level of OPD (F=14.611; p<0.001).

The remaining socio-demographic characteristics did not have any significant differences on the average quality ratings, and were not significantly associated with the quality of healthcare services accessed at the KBTH.

Table 5.16 shows results of the bivariate analysis of the association between socio-demographic characteristics and quality of healthcare.

Table 5.16: Bivariate Analysis: Association between Socio-Demographic Characteristics and Quality of Healthcare

Factor	Categories	Quality Healthcare		F-statistic	p-value
		Mean	Std. Deviation		
Gender	Female	68.48	6.48	0.214	0.644
	Male	68.81	7.02		
Age	<70 years	68.99	6.29	1.004	0.317
	≥70 years	68.27	7.24		
Educational Level	< Secondary	69.11	6.34	2.762	0.097
	≥ Secondary	67.89	7.34		
Marital Status	Spouse	68.65	6.68	0.995	**<0.001***
	No Spouse	68.65	6.86		
Monthly Earnings	<GHS 500.00	68.88	6.33	0.678	0.411
	≥GHS 500.00	68.28	7.38		
NHI Status	Uninsured	68.33	6.69	0.063	0.803
	Insured	68.68	6.77		
OPD Attended	Primary	70.90	7.01	14.611	**<0.001***
	Secondary	68.62	6.38		
	Tertiary	64.75	6.13		
Chronic Disease	One	69.54	7.20	2.970	**0.032***
	Two	68.41	6.31		
	Three	66.74	6.40		
	Four	65.50	4.39		
Locality	Korle-Bu Environs	68.93	7.94	0.067	0.935
	Greater-Accra Region	68.62	6.33		
	Outside GAR	68.51	7.14		

***: Significant at 5%.**
Source: Field Data (2017).

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5.5.4. Generalised Linear Model: Association between Socio-Demographic Characteristics and Quality of Healthcare Services

This sub-section presents results of the associations between socio-demographic characteristics and quality of healthcare accessed by the elderly persons who attended KBTH. In adjusting for the mutual effects of the variables, the elderly male participants rated quality of healthcare on an average of 0.18, which was higher than the elderly female participants. However, the effect was not significant (p=0.808). The results indicated that both elderly female and male participants regarded quality of healthcare to be the same. The elderly participants who attended the secondary OPDs rated quality of healthcare on an average of 2.19, which was lower than the elderly participants who attended the primary OPDs. The effect was significant (p=0.011). The elderly participants who attended the tertiary OPD rated quality of healthcare on an average of 6.24, which was less than the elderly who attended the primary OPD. The effect was significant (p<0.001). This implied that the elderly participants who utilised the primary OPD valued the quality of healthcare services higher than those who attended the other OPDs.

Furthermore, the elderly participants who were diagnosed with three chronic diseases significantly rated quality of healthcare with an average of 2.79, which was less than the elderly participants diagnosed with one chronic disease (p=0.020). This was an indication that the more chronic diseases an individual was diagnosed with, the lesser the quality of healthcare accessed.

The rest of the socio-demographic characteristics were not significantly associated with quality of healthcare when mutual effects were adjusted (p>0.05). Table 5.17 shows the details.

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Table 5. 17: Generalised Linear Model: Association between Socio-demographic Characteristics and Quality of Healthcare

Categories	Effect	Wald Statistic	95% Cl for Effect Lower	Upper	p-value
Gender					
Female **Ref**					
Male	0.18	0.24	-1.27	1.63	0.808
Age					
<70 years **Ref**					
≥ 70 years	-0.21	-0.3	-1.62	1.19	0.765
Educational level					
<70 Secondary **Ref**					
≥ 70 Secondary	-0.69	-0.88	-2.22	0.84	0.379
Marital Status					
Spouse **Ref**					
No spouse	-0.56	-0.72	-2.07	0.96	0.471
Monthly Earnings					
< GHS 500.00 **Ref**					
≥ GHS 500.00	0.48	0.61	-1.07	2.03	0.542
NHI Status					
Uninsured **Ref**					
Insured	-0.78	-0.57	-3.45	1.90	0.570
OPD Attended					
Primary **Ref**					
Secondary	-2.19	-2.53	-3.89	-0.49	**0.011***
Tertiary	-6.24	-5.2	-8.60	-8.60	**<0.001***
Chronic Diseases					
One **Ref**					
Two	-1.35	-1.79	-2.84	0.13	0.074
Three	-2.79	-2.38	-5.13	-0.44	**0.020***
Four	-3.80	-1.92	-7.67	0.07	0.054
Locality					
Korle-Bu environs **Ref**					
Greater-Accra Region	-0.02	-0.02	-1.95	1.90	0.982
Outside Greater-Accra Region	-0.31	-0.26	- 2.68	2.05	0.794

*** Significant at 5%, Cl: Confidence interval, Ref: Reference category.**
Source: Field Data (2017).

5.6. Summary of the Chapter

This chapter presented the quantitative results of the study. The analysis was done by using bivariate and logistic regression to find the associations between the predisposing, enabling and need factors and utilisation of healthcare. The results revealed that cost was a factor on utilisation of healthcare, which did not aid in utilisation of healthcare services. Additionally, waiting time was rated by majority of the participants as the highest. Thus, waiting time was also observed to have on influence on utilisation of healthcare. In the case of accessibility, the results revealed that accessibility on utilisation of healthcare was low, an indication that accessibility motivated the elderly in the utilisation of healthcare.

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Furthermore, majority of the elderly participants rated physical support (39.1%) and information (84.5) as low. This indicated that physical support and information influenced the elderly participants in utilisation of healthcare service. Majority of the elderly participants rated health personnel attitude (85%) as high, which indicated that it did not promote utilisation of healthcare services.

The second objective was analysed by the use of bivariate and GLM to find the association between the sociodemographic variables and quality of healthcare. The findings indicated that quality was rated highest for elderly participants who were diagnosed with one chronic disease (69.5%), more than their counterparts who were diagnosed with more than one chronic condition ($p=0.032$). The elderly participants who attended the primary OPD showed that the services provided were of a better quality than their counterparts who attended the secondary and tertiary OPDs ($p<0.001$). The elderly participants viewed the quality of healthcare services accessed at the KBTH as average. The next chapter presents the findings from the qualitative study.

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CHAPTER SIX

QUALITATIVE FINDINGS

6.0. Introduction

This chapter presents the qualitative findings derived from the in-depth interviews. The interviews were centred on the influence of factors (predisposing, enabling and need) on utilisation, quality of healthcare accessed by the elderly and the elderly persons' satisfaction with healthcare services.

The first section of this chapter presents the socio-demographic characteristics of the 76 elderly persons involved in the qualitative study who utilised healthcare services at KBTH. The ensuing findings are presented according to the objectives of the study. The findings presented were supported by verbatim quotations of the elderly interviewees' responses using codes (IDI M: male participant: IDI F: female participant).

6.1. Socio-Demographic Characteristics of Participants

The study engaged 76 elderly persons who participated in the in-depth interviews from the seven OPDs in KBTH. The elderly males were 37 and the females were 39 in number. Thirty-eight of the elderly persons were married, and also thirty-eight of them were without spouses (widows, widowers, divorced or separated). The elderly persons who attained above secondary school education were 28. Forty-eight elderly persons had obtained secondary school education qualification. With regards to the age of the participants, 43 elderly persons were above the age of 70 years and 33 were below 70 years. In relation to their ethnic background, 31 were Akans, Gas were 18, 16 were Ewes, seven were Dagombas and four were Gonjas. Only six were still working – the remaining 70 had retired from work. The elderly persons who had been diagnosed with multiple chronic conditions were 54 and those with one chronic condition were 22. Six of them

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commuted from Korle-Bu environs to KBTH, 54 commuted from outside Korle-Bu environs but in the Greater-Accra Region; only sixteen (16) commuted from other regions to KBTH. Table 6.1 presents the socio-demographic characteristics of the elderly persons.

Table 6.1: Socio-demographic Characteristics of Participants

Variables	Categories	Frequency
Gender	Male	37
	Female	39
Age	< 70 years	43
	≥ 70 years	33
Marital Status	Spouse	38
	No spouse	38
Educational level	Above sec sch.	28
	Below sec sch.	48
Ethnicity	Akans	31
	Gas	18
	Ewes	16
	Dagombas	7
	Gonjas	4
Employment status	Retired	70
	Employed	6
Chronic Disease	One chronic	22
	Multiple Chronic Conditions	54
Residence	Korle-Bu environs	6
	Greater Acc Reg.	54
	Other Regions	16

Source: Field Data (2017).

6.2. Predisposing, Enabling and Need Factors on Utilisation of Healthcare Services

This section presents the qualitative findings relating to objective one of the study: to assess the predisposing, enabling and need factors on utilisation of healthcare services by the elderly persons utilising KBTH.

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6.2.1. Predisposing Factors on Utilisation of Healthcare Services

The findings were described under the themes and sub-themes that emerged under the predisposing factors. These were bodily pains and long stressful waiting time.

Bodily Pains

A question was asked to elicit how the predisposing factors affects the elderly on utilisation of healthcare services. One factor that related to that was bodily pains. The elderly participants explained that they experienced bodily pains and swollen feet due to sitting for long hours at the same place. Most of these elderly persons were fragile, weak and their adipose tissues had worn out leading to the described bodily pains and swollen feet. In addition, the seats provided at the OPDs were not comfortable, which worsened the situation in which they found themselves:

> "*I arrived at the units as early as 2.30am. [.....]. My feet get swollen and I experience severe backache for sitting for hours on these uncomfortable seats"* **(IDI F_7 75 years).**
>
> *"The waiting time is very long. I arrived at the unit at 4.00am. [……] I experience waist pains for sitting for very long hours"* **(IDI M_2 65 years).**

The revelation was that the elderly persons were suffering from musculoskeletal pain as a result of sitting on uncomfortable seats for long hours.

Long Stressful Waiting Time

Another sub-theme, which emerged under the predisposing factors was the long stressful waiting time. The KBTH serves patients from all over the country as well as those from neighbouring countries. Patients who report for adult healthcare services are many, including younger age groups of 15 years and above. However, there were no preferences for persons aged 60 years and above. There was no electronic appointment system in place such that different times could be allotted to the patients. This means that for each

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appointment, patients would have to report very early so that they could leave the hospital early as well. Unfortunately, the hospital's OPDs did not start operating until 8.00am. Patients were seen according to who reported first. Thus, in the event that a patient arrived early, they might not be attended to until 8.00am. When this happens, the patients would assume that the waiting time was too long if it was between two and four hours. However, for patients who reported late, the waiting hours could be very lengthy between two and six hours.

The elderly participants in the study described the waiting time as long and stressful because they arrived at the OPDs very early in the morning whilst the doctors started consultation from 8.00am. Some of these elderly persons reported as early as 3.00 am because they might be commuting from outside the Greater Accra Region. Others who resided in the Greater Accra Region preferred to report very early to be seen early. This situation could lead to a long stressful waiting time. In an attempt to find out how the waiting time influenced utilisation of healthcare services, a question was put before the participants. The waiting time to see the doctors was seen as very long:

> *"The waiting time is long, tiring, and stressful. I was at the unit as early as 3am. I met about eight to ten people already here. [...]. I take taxi (drop-in) that is expensive to come early. It is 8.30am, the doctors have not yet arrived at the unit"* **(IDI F_{10}78 years).**

6.2.2. Enabling Factors on Utilisation of Healthcare Services

The sub-themes relating to the enabling factors have been presented here. These included exorbitant diagnostic fees, expensive medication and costly consultation fees. The enabling factors are the resources available to individuals, which make healthcare services accessible. The elderly persons explained that they were on retirement and their monthly income was not sufficient to cater for their basic needs. This situation made it very difficult for them to pay for their consultation fees, medications, and to perform diagnostic

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investigations. The participants stated that they were not on any pension scheme, which had made life unbearable for them. Some of them depended on their children, relatives and churches for financial support. The few that claimed that they were still working also experienced difficulties in paying for the hospital fees.

Exorbitant Diagnostic Investigation Fees

The participants clarified that although the diagnostic investigations were partially covered by the NHI, investigations with exorbitant fees were not covered by the NHI. This prevented them from performing these diagnostic investigations, leading to deterioration of their state of health. In addition, the exorbitant diagnostic investigation fees (above GHS 500.00) prevented them from attending subsequent visits to the units. This led to the postponement of their follow-up visits to the units. They chose to stay at home:

> *"Hmm, well the laboratory investigations fees are very exorbitant, now that I am not working, the doctor asked me to come last year but because of monetary problem I had to wait for my daughter to get money to perform the test before I could come. So, I have to explain to the doctor the reasons why I am now coming. So when the diagnostic investigations are costly for me, I delay in performing the investigations and coming to the clinic"* **(IDI F_{20} 68 years).**

> *"I am not working. The cost of the investigation is very expensive for me. When I ask my children for money for healthcare services then my pocket money also reduces drastically. I am supposed to perform an investigation which cost GHS 800.00. I have not yet done it because I do not have money to pay"* **(IDI M_6 74 years).**

The clue from the analysis was that even though some of the costs relating to diagnostic investigation were covered under the NHIS, there were a few that the elderly persons had to pay personally.

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Expensive Medication Cost

Persons diagnosed with Non Communicable Diseases (NCDs) need to take their medication consistently because NCDs such as hypertension, diabetes, cardiovascular diseases are not curable, but are controllable. All the participants who were diagnosed with NCDs expressed difficulties regarding the expensive cost of medication (above GHS 200.00) as a result of partial coverage on medication by the NHIS. This situation led to the delay or defaulting of participants in reporting back for check-ups. This reportedly resulted in the deterioration of their health and influenced utilisation of healthcare:

> *"My drugs are very expensive and they are not covered by the NHI. The expensive cost of medications delays or prevents me from attending the clinic, this usually deteriorates my health"* **(IDI M_{12} 66 years).**

> *"I am on a pension scheme so I receive pension money every month. This pension money is very small to pay all the costs of healthcare services, which makes life very uncomfortable. Every now and then the costs of drugs are going high, in fact, it is very difficult to come to the unit and not be able to buy the drugs"* **(IDI F_4 80 years).**

The observation was that the elderly persons were willing to access healthcare services but the high cost of medications not covered by NHIS was serving as a challenge.

Costly Consultation Fees

The doctors mostly request that patients report for reviews, the regularity of which depends on the state of health of the patients. The reviews could range from monthly to every three months. In addition, since NCDs are not curable, the elderly need to honour their reviews to be in good health. The participants argued that the consultation fee had an influence on their ability to honour the reviews. They explained that, although they were beneficiaries of NHIS, they still had to pay for consultation fees depending on which OPD they utilised. The consultation fees ranged from GHS 5.00 to GHS 25.00. The elderly

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claimed that the NHI did not cover the consultation fees for some OPDs so they pay GHS 40.00 to GHS 80.00. These circumstances led to default in reviews:

"*At this OPD, money is used to access the services. If I do not have money I cannot access anything, even as a beneficiary of NHI, I have to pay consultation fee of GHS20.00 and if my insurance expired, then I have to pay consultation fee of GHS45.00. So without money I cannot access the healthcare services. […….....]I cannot come to see the doctor if I do not have money to pay my consultation fee"* **(IDI F_{16} 65 years).**

"The consultation fees prevents me from coming to the unit sometimes and I end up just in the house instead of coming to the unit. Today, I have to go to the dietician unit; I do not have money, so I will not go to the dietician, because insurance does not cover the consultation fee there. My money is finished so I have to go home and report at the dietician unit when I get money" **(IDI M_{41} 71 years).**

The issue was that the cost of consultation fees, among others, was serving as a challenge to the elderly persons utilising the OPD services.

6.2.3. Need Factors on Utilisation of Healthcare Services

Most of the elderly persons were diagnosed with various NCDs by doctors at the KBTH. These elderly persons sought professional assistance when they experienced signs and symptoms of the disease conditions such as pain, headache, palpitations, insomnia, and difficulties in walking, forgetfulness, among others. The elderly participants in this current study were diagnosed with at least one chronic condition. This warranted follow-ups to check their state of health so as to ensure good health.

The elderly persons were frail and might be experiencing some complications and disabilities that limited their activities. However, they attended the same OPDs with other age groups. Additionally, majority of the elderly did not reside in the environs of KBTH but journeyed from other places in the Greater Accra and other regions. This situation led to waking up early to report timely, expensive transport fares, and due to their frailty, the

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OPD procedures were too cumbersome for them. The sub-theme which emerged under the need factors have been presented below.

Cumbersome Procedures

At the various OPDs in KBTH, there were procedures the patients had to go through before seeing the doctors: collection of folders from the records section; going to the mobile bank to pay consultation fee; making of photocopies of NHI particulars to be given to the NHI personnel; before seeing the nurses to check blood pressure, temperature, pulse and respiration. The patients would then wait for the doctors to report before been attended to. This situation was putting stress on the elderly persons because of their age and state of health. They were getting worried about the cumbersome procedures they had to go through before seeing the doctors:

> *"I find it very difficult walking to the OPD. The process at the OPD is very cumbersome even with my children with me. I have to go to the insurance personnel, to make some photo-copies, to the nurses and others. The movement around the OPD is a real challenge for me. The cost of transport fare to the unit and the cost of the healthcare services are also a challenge for me"* **(IDI F_3 65 years).**
>
> *"My place of residence is very far from the hospital. I have to change transport twice and this increases the cost of transport fares. At the facility too, the NHI procedure is very cumbersome and tiring for an elderly person like me. I walk from one place to another, I have to go here and there, which makes me very exhausted. At my age and I am not feeling well the procedures worsen my health. In addition, I wait for a long time to see the doctor leading to bodily pains"* **(IDI F_{37} 76 years).**

Waking up Early

The participants were frail and very slow as a result of their ageing. They needed to wake up very early to maintain or to be assisted in maintaining their personal hygiene, take their breakfast and morning medication(s) before setting off to the KBTH. This situation was problematic to these elderly persons as they had to wake up very early:

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> *"I woke up very early in the morning at about 4.00am, so as to report early but most often, I see the doctor very late. I wake up early, to be assisted to bath, have breakfast and take my medications before coming to the OPD. [.....]"* **(IDI M_1 62 years).**

> *"I wake up early to come to the clinic because I did not want to be late. I have to wake up very early in the morning by 4.00am to get to the clinic on time since I am very slow in my activities such as bathing, eating, dressing up and walking. If I do not report early I will not be seen early. There is no preference for the elderly person at this unit"* (with a sad facial expression) **(IDI F_{51} 71 years).**

The impression created was that the lack of scheduled appointment was putting extra pressure on the elderly since they had to have reduced sleep hours on clinic days.

Distance to the Facility

The residences of most of the elderly were far from the KBTH. Some of them had to pick two or more vehicles before reaching the KBTH. In addition, majority of them were not able to use the public transport, which had lower transport fares; but rather used taxis. The elderly specifically used 'drop in' taxis, which were more expensive than the ordinary 'shared' taxis. The 'drop in' taxis dropped them off at the entrance of the OPDs and not the bus stop, which is a distance from the OPDs:

> "*I am coming all the way from the northern part of the Volta Region, the distance is too far, I set off a day before the appointment day, so yesterday, I set off early, I did not eat and I did not drink to prevent me from urinating. I sit in the car, my legs all get swollen. The road to Accra is very bad; I travel a whole day to Accra. When I get to Accra, I board a taxi to the clinic at once to be seen early and then set off again to Jiji. I always feel dizzy anytime I come here. Cost of the transport fare is a big problem and the distance"* **(IDI M_{60} 82years).**

> *"The difficulties I face in accessing the healthcare services at the unit are; waking up early to be at the unit, the cost of the transport to the unit since I am not able to walk for long so I take 'drop in' taxi, which is very expensive"* **(IDI F_{25} 68 years).**

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The elderly persons explained that the distance from their places of residence to the units, which determined the cost of transport fares, and the cost of healthcare services were likely to prevent them from utilising healthcare services. The elderly described that the high external cost [transport fares] and internal cost [healthcare cost] were the key barriers to healthcare service utilisation. The interviewees expressed some of the impediments to healthcare services utilisation:

> *"The distance from my place of residence to the unit is far, the cost of healthcare services and transport fare may likely prevent me from using the services at this unit"* **(IDI M_{44} 84 years).**

> *"The things that will prevent me from coming to the unit are the cost of transport and the cost of healthcare services that I cannot afford. These may prevent me from utilizing the services"* **(IDI F_{50} 68 years).**

The understanding was that the seeming lack of decentralised specialist or geriatric healthcare was creating challenges for the elderly who had to travel long distances to the tertiary facility.

6.3. Quality of Healthcare Services

This section presents results of the perceptions of the participants of the quality of healthcare services. The study sought to explore the elderly persons' perception of the quality of healthcare accessed at the KBTH. They stated that the feedback from the health personnel were harsh, they provided negligible assistance for them at the units, and they sat on very low seats that gave them bodily pains whilst waiting for the doctors. However, they described the health personnel as skilful and knowledgeable. The themes and sub-themes, which emerged under the quality of healthcare services have been presented below.

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Physical Support

The elderly persons were basically not as energetic as they used to be. They were weak, some with disabilities, and had problems with walking. Most health facilities in Ghana do not have gadgets such as grasp bars on the steps, hand rails on the steps, enough wheel chairs, accessible path leading to the lift and other supportive gadgets. The participants explained that at the OPDs, the health personnel provided very minimal physical support. The doctors did not provide any physical support and nurses hardly assisted them physically. However, they were assisted by their family members who accompanied them:

> *"The doctors do not provide any physical support [laughing]. The nurses hardly assist. My wife comes with me to support me"* **(IDI M_{17} 87 years).**

> *"The doctors don't assist me physically but the nurses sometimes provide just wheelchair for me at the unit and my daughter wheels me around. My daughters who mostly accompany me provide physical support when I come to the unit."* **(IDI F_{34} 75 years).**

The seeming absence of geriatric care and associated equipment at the tertiary healthcare facility of the country was brought to light during analysis of the interview data.

Medical Proficiency/Availability of Skilled Personnel

Competencies are expected from qualified workers. The participants described the health personnel at the KBTH as skilful and knowledgeable of their area of work. They explained that the doctors were able to diagnose them and treat them accordingly. In addition, the nurses educated them on their health conditions and they were skilful as well:

> *"The doctors are very excellent, they are knowledgeable and very skilful to detect what was wrong with me. Now I am better"* **(IDI M_5 82years).**

> *"The nurses I see that they know what they are doing. They check my blood pressure and they tell me what it is, they educate me and ask me questions also"* **(IDI F_{14} 69years).**

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An observation that emanated from the analysis of the interview data was that the assessment of the competencies of the healthcare professionals was based on how well they followed the medical procedures.

Health Personnel Attitude

The health personnel are supposed to be in constant interactions with the patients at the hospital. The health personnel have been trained to listen to the patients and address their needs appropriately. However, what the elderly patients expected from these qualified professionals was reportedly missing in their responses to the patients. The interviewees in this study lamented that the health personnel were harsh when responding to them. The conversation with the elderly participants revealed that:

> *"[...] other doctors are harsh with their words and sometimes when I do not understand what they explained to me they get annoyed"* **(IDI F_9 76 years).**

> *"As for the nurses, majority are not the best; they do not have patience at all and do not know how to talk to us, they talk harshly to us"* **(IDI M_{30} 68 years).**

It was observed that, since the participants could not measure the technical aspect of quality of healthcare, they assessed it on basis of how they were addressed by the healthcare personnel.

Poor Seats and Sitting Arrangements

Most of the seats at the waiting rooms were reportedly low and uncomfortable, which made it very difficult for the elderly to get up, and caused bodily pains. In addition, at the waiting room, the arrangements to see the doctors were not orderly, leading to elderly persons arriving early, yet not seeing the doctor on time; instead, those elderly persons who reported late at the unit could see the doctor first. Moreover, there were no spaces for persons in wheel chairs to be located. These situations made the waiting time very stressful:

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"The sitting arrangements to see the doctor is not the best, because those who came in late most often see the doctors before those of us who came in early. Moreover, the seats are very low, getting up from the seats is very difficult. In addition, the seats are not comfortable and I get painful backaches when I sit for some time" **(IDI F_{42} 61 years).**

"The seats are very low and it is very difficult getting up from them. The spaces between the seats are small that passing through is very difficult. The sitting arrangements to see the doctor are not the best, because others come and by-pass persons who came first to the unit" **(IDI M_{21} 71 years).**

"The units have seats for able persons, but persons in wheelchairs have no location at the waiting room. The person wheeling me [children], have to stand till I have seen the doctor and ready to go home. I am placed on the corridor or any available place" **(IDI M_{18} 70 years).**

The view was that there should be the provision of suitable seating arrangements at the departments since patients spent a long time to see the medical doctors.

Waiting Time

The Korle-Bu Teaching Hospital does not practise appointments with time but rather appointments with dates. The elderly persons report on the day they are to see the doctors. They complained of long waiting time:

"The waiting time is very long, stressful, tiring and I experience severe bodily pains, especially my buttocks and also develop swollen feet" **(IDI M_{70} 95years).**

"The waiting time is most often long. I wait for about four or more hours before I see the doctor. I develop back and waist pains" **(1DI F_{66} 66years).**

6.4. Satisfaction with Healthcare Services

The elderly persons had not completed their treatment, it was not possible to measure the outcome using indicators. Thus, they assessed their outcome based on improvements in their health conditions. The themes and sub-themes, which emerged under the satisfaction with healthcare services have been presented below.

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Healthy Life

World Health Organisation's definition of health is "a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity and the ability to lead a socially and economically productive life"(Ahmad & ud Din, 2010, p.95). The elderly persons were not in a state of complete physical and mental well-being because they were diagnosed with one or more NCDs. They considered KBTH healthcare services to be useful for their treatment in order to have a healthy life. The study sought to explore the elderly persons' perception with satisfaction of health care services at the KBTH to attain a healthy life.

Improved Stabilised Health

The elderly persons in the study stated that they were satisfied with the healthcare services provided at the KBTH. They were satisfied with the healthcare services based on their evaluation of their state of health. They explained that their health had improved remarkably and stabilised without any deterioration. In addition, they clarified that the pain, palpitations, poor vision, retention of urine and other signs and symptoms of the diseases they experienced when they first came to KBTH had all stopped. Their state of health had improved and had been stable for a while. With these results, they were satisfied with the healthcare services at the units. Findings from the interview with the elderly on satisfaction with healthcare services revealed that:

> *"The various surgeries (four) that have been done for me at my age; 79 years and am still alive and I have improved in my health and stabilised, I am very satisfied with the services here" [smiling]* **(IDI F_{13}79years).**

> "*My health has improved and stabilised for some time now. It has not deteriorated at all. I am satisfied with the care provided here*" **(IDI M_{15} 66 years).**

Although other participants explained that they were satisfied with the healthcare services, they wanted the hospital authorities to improve on some areas of care such as waiting time and the cost of healthcare service:

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"The services are satisfactory because my health has improved remarkably and now stable, although I face monetary challenges and the long waiting time to see the doctor" [laughing] **(IDI F_{38} 64 years).**

"The services are satisfactory because my health has improved, now better and stabilized so I am satisfied. Although I am satisfied they need to improve on the waiting time" **(IDI M_{24} 91 years)**.

The analysis showed that the elderly persons had achieved some improvement in their health conditions.

6.5. Summary of the Chapter

This chapter discovered that the elderly persons woke up very early in the morning. They did board 'drop in' taxis to report early at the OPDs. At the OPDs, the elderly persons encountered cumbersome procedures before seeing the doctors and experienced long stressful waiting time to see the doctors on uncomfortable seats. As they waited to see the doctors, they developed bodily pains and swollen feet. In addition, they claimed that the arrangements to see the doctors were not orderly. Moreover, the concerns of the elderly persons were the harsh feedback from the health personnel. Additionally, the expensive diagnostic investigations, medications and consultation fees usually prevented them from subsequent reviews. While the elderly persons encountered these impediments at the OPDs, they were at times appreciative of the expertise of the health personnel and the improvement in their health. The next chapter presents the discussion of the study's findings in relation to existing literature.

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CHAPTER SEVEN

DISCUSSION OF EMPIRICAL FINDINGS

7.0. Introduction

This chapter presents a discussion of the findings of both the quantitative and qualitative studies guided by the specific objectives of the study. These findings have been related to existing literature and explained based on the theoretical perspective of the health belief model.

7.1. Utilisation of Healthcare Services

This section presents the analysis of the findings relating to predisposing, enabling and need factors on utilisation of healthcare services by the elderly persons who attended the Korle-Bu Teaching Hospital and their relationship with literature. The elderly persons appeared to use the healthcare services based on certain factors, which tended to influence them to utilise the healthcare services more than other age groups. These factors were the predisposing, enabling and need factors (Andersen, 1995; Andersen & Newman, 2005). The predisposing factors were the age, sex, marital status, chronic disease, education and employment status of the participants. Although the elderly may be susceptible to utilise the healthcare services, they must have some means available. The enabling factors make the healthcare services available for the elderly persons. The enabling factors were the monthly earnings, National Health Insurance, financial and physical support from children, relatives and friends (Andersen, 1995; Andersen & Newman, 2005). The need factors were the direct cause of utilisation of the healthcare services. Additionally, the insight of the disease condition by the elderly persons and the medical diagnosis have an influence on how the individual utilises the healthcare services (Andersen, 1995; Andersen & Newman, 2005). The main findings in relation to these variables have been presented in relation to literature and guided by the Health Belief Model, Donabedian Model and Andersen healthcare utilisation model.

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7.1.1. Predisposing Factors associated with Utilisation of Healthcare Services (Perceived Benefits)

This segment presents the findings relating to predisposing factors on utilisation of healthcare services.

This segment indicates accessibility was a factor on utilisation of healthcare services by the elderly participants. Pre-secondary school holders found it more difficult accessing the healthcare services than the elderly with above secondary education ($\chi^2 = 9.58$; p=0.008). The study is similar to Yunus et al. (2017) who reported that in Malaysia elderly with tertiary education utilised healthcare services significantly higher than the elderly with pre-tertiary education. Gong et al. (2016) stated that, the elderly with higher education were more likely to utilise in-patient care. In Slovenia, education was shown to have influenced the utilisation of healthcare services by the elderly patients (Hren et al., 2015). Additionally, Teng et al. (2013) revealed that persons with education were significant in determining medical services utilisation. These studies also confirmed that higher education experienced less impediments to healthcare services utilisation.

The female elderly participants in this study viewed information as a factor that did not boost utilisation of healthcare services ($\chi^2 = 12.45$; p=0.02). A similar study in Netherlands identified information as an effect to the use of healthcare services by the elderly (Suurmond, Rosenmoller, el Mesbahi, Lamkaddem, & Essink-Bot, 2016).

The qualitative study revealed that, the elderly persons experienced long stressful waiting time and bodily pains while waiting to see the doctors. The Korle-Bu Teaching Hospital OPDs did not have an electronic appointment system to allot different times to the elderly persons. The doctors started consultation at 8.00 am. In the event that elderly persons arrived early, they were not attended to until 8.00 am. When this occurred, the elderly persons assumed that the waiting time was too long. In addition, the elderly persons

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experienced bodily pains and swelling of the feet as a result of sitting for long periods at the same place. Moreover, they had a higher risk of experiencing bodily pains and swelling of feet because of ageing. Majority of the elderly participants (81.4%) in the study experienced long stressful waiting time. The elderly who attended the various OPDs were influenced by the waiting time in utilising the healthcare services (χ^2 = 15.64; p=0.004). Studies conducted in South Africa, Nigeria and Ghana specified similar findings that the elderly experienced long waiting time to see the doctors (Addo & Gyamfuah, 2014; Chukwudi et al., 2015; Nteta, Mokgatle-Nthabu, & Oguntibeju, 2010).

The Health Belief Model specified that, when the benefits of the healthcare overshadowed the barriers, the elderly persons would seek health services (Orji et al., 2012; Rosenstock et al., 1988). The elderly persons in this study appreciated the benefits of the healthcare at the units so they took the decision overlook the difficulties in accessing healthcare services, poor information and to wait as long as they could so that they could be seen by the doctors and given the appropriate health care services to alleviate their ill health and treat their ailments.

7.1.2. Enabling Factors Associated with Utilisation of Healthcare Services (Perceived Barriers)

This sub-section presents a discussion of enabling factors on utilisation of healthcare services and how they relate to current literature. The exorbitant cost of healthcare services the elderly persons who attended KBTH had to pay to access healthcare services was revealed. This study showed that the elderly persons who received monthly earnings less than GHS 500.00 viewed cost as an influence on utilisation of healthcare services compared to the elderly persons who received monthly earnings more than GHS 500.00 (χ^2 = 7.23; p = 0.026). Majority of the elderly persons viewed cost of healthcare services as not aiding in the utilisation of healthcare services. Gong et al. (2016) also explained that

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the elderly persons with a better financial situation were more likely to use the healthcare services because they were able to afford the cost of the services. This situation was evident in China, the wealthy elderly persons were more likely to utilise OPD services than the under privileged elderly persons basically, because the wealthy elderly persons do not encounter much financial constraints compared with the less under privileged elderly persons (Lixia et al., 2015). Similar issues had been documented in support of this current study in terms of the cost of healthcare services (Addo & Gyamfuah, 2014; Agbogidi & Azodo, 2009; Brinda et al., 2015; Gong et al., 2016). These studies indicated that the elderly persons encountered difficulties in paying for their healthcare services. For instance, they had a problem with the payment of their medications since they did not have money or enough money.

Healthcare financing is a major issue in health systems throughout the world, including Ghana (Blanchet, Fink, & Osei-Akoto, 2012). As part of healthcare reforms, Ghana moved away from the former 'cash and carry system' [out-of-pocket payment] to the current 'National Health Insurance Scheme' to offset barriers to utilisation and help with universal coverage of healthcare. However, the latter form of healthcare financing is not without pitfalls. It has brought with it, varying issues that are difficult to overcome (Blanchet et al., 2012).

Almost all the elderly persons in this study were either on pension scheme or not working. They depended on monies from their children, relatives, friends, church and the pension money. These monies were not sufficient to pay for their healthcare expenditures since the health insurance did not have full coverage on the healthcare services. The elderly persons specified that the expensive diagnostic investigations and medications were not covered by the NHI. In addition, they had to pay some fees for consultation, although they were beneficiaries of the NHI. This situation affected the elderly persons by preventing them

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from performing the diagnostic investigation(s), buying their medication(s) and attending the next hospital visit.

Another concern expressed by the elderly persons with less income in the current study was the burden of cost of healthcare services. This was confirmed by Hoeck et al. (2011) who found that the elderly persons living in Belgium within the lower socio-economic status (SES) groups had worse self-assessed health. This may be due to financial constraints related to healthcare costs leading to poor healthcare service utilisation.

The enabling factor refers to the “means” of the elderly person having available resources for themselves for the utilisation of healthcare services (Andersen & Newman, 2005; Andersen, 1995). These include capitals specific to their family, for instance, income (Andersen & Newman, 2005; Andersen, 1995). The elderly persons were financially handicapped to perform diagnostic investigations, buy their medications and pay for their consultation fee to see the doctors. The cost of the healthcare was a barrier as stipulated by the Health Belief Model (Orji et al., 2012; Rosenstock, 1990).

Healthcare costs had an impact on how the elderly persons utilised healthcare services. Healthcare cost is thus, the determining factor as to which healthcare facility the elderly persons would utilise, and if the cost was not affordable, they would not patronise the health facility.

7.1.3. Need Factors Associated with Utilisation of Healthcare Services (Perceived Susceptibility, Perceived Benefits and Perceived Barriers)

The elderly persons in the study diagnosed with MCCs who attended the OPDs were significantly associated with cost on utilisation of healthcare services (χ^2 = 14.78; p = 0.005). The quantitative study showed that, cost on healthcare services did not encourage utilisation of healthcare. The elderly persons with MCCs was more likely to rate the cost

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on utilisation compared to the elderly with one chronic condition (OR=1.56, 95% CI=1.04-2.34). This findings was confirmed by Bähler et al. (2015) that the elderly person with MCCs total cost was 5.5 times higher and each additional chronic condition was associated with an increase in consultations and cost of healthcare. The elderly persons with MCCs in this study explained that the healthcare cost was expensive since they utilised more than one consultations and had to depend on their children for financial assistance.

The elderly persons in this study journeyed to the health facility to access healthcare because of their health condition(s). Andersen (1995) and Rebhan (2008) argued that the direct cause of healthcare utilisation are the functional and medical problems that require healthcare services. The argument was that, the signs and symptoms of the diseases experienced by the elderly persons propelled them to seek medical assistance. In addition, how the individual persons perceived their health condition(s) would help them to comprehend the need to pursue and conform to medical treatment (Andersen, 1995; Rebhan, 2008).

Some analysts have explained that evaluated need denoted medical doctor's diagnosis of an individual's health status and required medical treatment while the medical diagnosis would indicate the kind and amount of treatment that would be administered to the individual person (Ronald Andersen & Newman, 2005; Rebhan, 2008). Furthermore, some researchers indicated that the elderly persons with MCCs increased their hospital visits and out-of-pocket-payment leading to catastrophic health expenditure (Addo & Gyamfuah, 2014; Agbogidi & Azodo, 2009; Brinda et al., 2015; Gong et al., 2016).

Topographical access to healthcare facilities has been identified to influence healthcare services utilisation (Paez, Mercado, Farber, Morency, & Roorda, 2010). Paez et al. (2010)

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argue that as the world's population age, accessibility to healthcare becomes an accumulatively severe public worry and acknowledged that the elderly tend to have lesser movement levels, and it is likely that this might adversely disturb their ability to reach the health facilities and health services. Distance is a recognised impediment to utilisation of healthcare services (Buzza et al., 2011). Over a billion persons, mostly in LMICs, were incapable of utilising the desired medical services as transport fares were very expensive (Harris et al., 2011).

The barriers elderly persons encountered with utilising healthcare services in South Africa were: very long distances, expensive transport fares and costly healthcare services (Harris et al., 2011). This study revealed that the elderly persons who experienced high travel cost also experienced high cost of healthcare services. Awoyemi, Obayelu, and Opaluwa (2011) observed that the aloofness of the hospital staff and the entire healthcare cost affected the use of public health facilities. In this study, majority of the elderly resided in different towns, cities and villages, and commuted to the Korle-Bu Teaching hospital in Accra, the capital city of Ghana. The quantitative study revealed that only (16.1%) elderly persons resided in the Korle-Bu hospital environs. Almost all the elderly persons who utilised the healthcare services at KBTH were referred from other health facilities, which were closer to their residence but these health facilities could not manage the disease condition(s). The elderly persons in this study explained that the distance, the travel cost and the cost of the healthcare services were the issues that might prevent them from utilising the healthcare services. In addition, most of the elderly persons used vehicles, specifically "drop in taxis", which were more expensive than the public buses and the normal shared taxis. This was because they were frail and could not compete with the young persons for seats on the public transport. Regan and Wong (2009) reported that

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patients residing outside the town of the health facility experienced expensive transport fares to the health facility.

The Andersen's health utilisation model states that when the enabling factors [resources in the family] are challenged, the elderly may not be able to utilise the healthcare services (Andersen, 1995; Rebhan, 2008). In addition, the Health Belief Model Rosenstock et al. (1988) presents it as a perceived barrier, which outweighs the benefits of the healthcare services. When a barrier outweighs the benefits, then the elderly persons are not able to honour their appointments for a review or perform their diagnostic investigations but rather stay at home. Studies have revealed that distance is an obstacle to healthcare utilisation. Silver, Blustein, and Weitzman (2012) established that 25% of the hospital clients missed their appointments or had to reschedule their appointments due to transportation challenges. Moreover, hospital clients using a bus as a means of transport were two times as likely to miss their appointments as compared with clients who used their own cars (Silver et al., 2012).

Transport is frequently referred to as a key impediment to healthcare utilisation (Silver et al., 2012). It has been documented that improved transport and soft fee-based transport services would increase utilisation of healthcare services and overall well-being status (Buzza et al., 2011). The elderly in this current study confirmed that the travel cost was one of the key barriers that prevented them from utilising the healthcare services.

7.2. Quality of Healthcare Services

This section describes the socio-demographic characteristics of the elderly to quality of healthcare accessed at the KBTH. The current study revealed that there was a decreasing trend in rating the quality of healthcare services with increasing number of chronic diseases ($F=2.97$; $p=0.032$). In addition, the study discovered there that was a decreased

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trend in quality with increased level of healthcare assessed at OPDs ($F=14.611$; $p<0.001$). The quality of healthcare services are discussed under the following headings: health personnel attitude, accessibility, physical support, waiting time and medical proficiency/available skilled personnel.

7.2.1. Health Personnel Attitude (Perceived Barriers and Cues to Action)

The HBM that should have been applied here was the cue to action, which shows that people take action to accept an intervention when encouraged by health personnel, mass media or other means of communication. However, since the health personnel's attitude was not the acceptable one, it rather turned into a barrier to assessing the quality of care by the elderly persons. The study findings clarified that the main problem the elderly persons had with communication was the manner in which the health professionals spoke to them. The health professionals reportedly used harsh words when speaking with the elderly persons and the elderly persons did not understand what was being communicated to them. The quantitative study indicated that, majority of the elderly persons (85.3%) rated the health personnel attitude as a factor not motivating them in the utilisation of healthcare services. The official mode of communication in Ghana is English. The vernacular that is mostly spoken in Ghana is either "Twi" or "Ga" typically in the city of Accra. Most of the elderly persons sometimes did not understand what was communicated to them by the health personnel in English or in the local dialect, thus leading to a communication barrier. Lai and Chau (2007) identified that most of the elderly Chinese immigrants complained that "professionals there do not speak your language" and most of the barriers the elderly immigrants faced were associated with language. Fundamentally, when one does not understand what is being communicated, it is very difficult to comprehend and act accordingly, which leads to barriers with understanding the services being provided. The elderly in this study, mostly did not understand the treatment regimen.

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Some elderly Japanese experienced difficulties in communication when utilising healthcare services in Thailand (Fukahori et al., 2011). This situation is similar to the difficulties in receiving information the elderly persons in the current study experienced with utilisation of healthcare services. Different types of dialects are spoken in Ghana; and because the Korle-Bu Teaching Hospital is a referral hospital, most patients being referred from other regional hospitals may not be able to speak the English Language or the common dialect [Twi] spoken in Ghana or "Ga" spoken in the city of Accra, mostly spoken around the Korle-Bu environs. The study showed that health personnel attitude was not a factor that motivated utilisation of healthcare services at the various OPDs (OR=5.11, 95% CI; 2.40-10.88; OR=6.14, 95% CI; 2.40-27.55). Furthermore, some of the health personnel may not know how to communicate with these elderly persons in their local vernacular. These difficulties led to a language barrier when using healthcare services. Chjkwudi et al. (2015) noted that health workers were not friendly to the elderly, which was a barrier for the elderly persons in Nigeria. In Ghana, Addo and Gyamfua (2014) established that there were substantial cases of maltreatment of patients by health service providers. Similarly, Lubenow et al. (2016) observed that, in Brazil, the elderly persons complained of the fact that health personnel asked quick questions without identifying their needs.

These findings in the Ghanaian premier health facility (a teaching hospital) has implications for quality as well as health literacy. It is imperative that the health professionals are taken through workshops to inculcate in them the need to act responsibly in their interactions with the elderly. Given their age, frailty and possibly low literacy levels, it behoves the health personnel, especially nurses and doctors to be patient with the elderly; explaining everything to them in simple, clear language for easy understanding.

The second component of Donabedian's model is process (Donabedian, 1990; Ibn El Haj

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et al., 2013). The process involves the interaction between the patients and the health personnel such as communication, performing various diagnostic investigations, physical examinations, and receiving nursing care (Nuckols et al., 2013). In this study, the communication between the health personnel and the elderly persons was not friendly but rather harsh. The harsh response would reduce the quality of healthcare services accessed by the elderly persons at the facility.

7.2.2. Physical Support (Perceived Barriers)

Some of the elderly persons in the study were very frail, weak and had difficulties in walking. The study findings indicated that the health personnel provided negligible physical assistance to the elderly persons at the OPDs when the latter were accessing healthcare services. The nurses provided wheelchairs for the elderly persons and were wheeled around by family members or persons who accompanied them to the health facility. In the case of the doctors, they did not involve themselves in providing any physical support for the elderly participants. The elderly persons who visited the KBTH every two or more months viewed the physical support as a factor not aiding in utilisation of healthcare services (χ^2=8.5; p=0.014). Similar issues have been documented in Spain where family members were responsible for feeding and bathing the ill elderly persons at the health facility as well as provided all the needed care that the elderly persons required whilst the nurses did absolutely nothing to care for them (Hall & Hardill, 2016).

The observation in this study was that both nurses and doctors did not offer physical support for their elderly patients, which was not a positive one, especially where the nurses were concerned. Nurses are expected to assist their patients to do what they (patients) cannot do for themselves. Shirking their responsibilities to family members is against the ethics of the profession. It is important that the Nursing and Midwifery Council, Ghana, as well as the Ghana Registered Nurses and Midwives Association find measures to reverse this trend in order to uphold the image of the profession.

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The children or persons who accompanied the elderly persons to the OPDs in this study assisted them in walking by holding their hands, wheeling them and running errands (such as NHI procedures, buying their medications and other health care activities). Furthermore, the family members or persons who accompanied the elderly persons to the OPDs assisted in providing nurses and doctors with information about the health of the elderly persons to aid medical treatment. Fry, Chenoweth, MacGregor, and Arendts (2015) reported that, in Australia, the family members were involved in providing information about their elderly persons to assist in decision making, treatment and nursing care of the elderly persons.

In this present study, the children or family members provided an atmosphere of security for the elderly persons and did not cause any distraction in the activities of the health personnel, unlike Fry et al. (2015) who reported that the nurses viewed the family members as a barrier to providing quality healthcare.

7.2.3. Waiting Time (Perceived Barriers)

Waiting rooms are areas in the hospitals where patients sit and wait to see their doctors. The elderly in this study clarified that they sat on uncomfortable seats that caused them bodily pains and some of them developed swelling of the feet. The elderly persons reported very early at the hospital to be seen early. However, the consultation starts at 8.00am leading to prolonged sitting, swelling of the feet and bodily pains due to long waiting time. From the Donabedian model (Donabedian, 1990; Ibn El Haj et al., 2013), the hospital organisation forms part of the structure in measuring quality. The hospital consultation policy starts from 8.00am. Moreover, the hospital does not have an electronic appointment system, hence, this leads to the long waiting time when the elderly persons arrive early. Furthermore, there was no policy for the elderly to be given preferential treatment in seeing the doctors, all patients were treated equally. The elderly in the study

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complained bitterly that the elderly persons who reported late were usually seen earlier than those who reported earlier.

7.2.4. Accessibility of Healthcare Services (Perceived Barrier)

This study found that, an increase in the difficulties in accessing healthcare services basically reduces, the quality of healthcare services provided at the healthcare units. The present study showed that the elderly experienced high travel cost (drop-in services to the unit), cumbersome procedures to access the healthcare services, waking very early to report at the unit as early as four o'clock in the morning, and difficulties walking and climbing to the unit. In a similar study, Allerton and Emerson (2012) reported that the elderly with chronic conditions experienced difficulties in accessing healthcare services in terms of transport and difficulties getting into the building of the unit. Gimm et al. (2016) also observed that the elderly had a problem in getting to the consulting room, which is similar to this current study. Accessing the healthcare unit was a barrier to the elderly persons but they took the action to continue utilising the healthcare services because of its benefits of providing them good health, which offset the barriers.

7.2.5. Medical Proficiency/Availability of Skilled Personnel (Perceived Benefits)

The findings of the study indicated that the doctors and nurses were skilful and knowledgeable of their duties leading to an improvement in the health of the elderly persons. The Korle-Bu Teaching Hospital has qualified doctors from the medical doctors to consultants, and also qualified nurses from the registered nurses to the Deputy Director of Nursing Service (DDNS). In addition, the hospital has specialised doctors and nurses in different medical fields. The quantitative findings revealed that both elderly male and female persons regarded the quality of healthcare to be the same. Nuckols et al. (2013) reported that structure in the Donabedian model presents resources that are used to provide healthcare; for instance, health specialties, medical equipment and hospital procedures to

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deliver quality healthcare to patients. The availability of qualified specialist health personnel and the equipment used in caring for the elderly led to improvement of the health of the elderly participants. The improvement in the health of the elderly persons also led to satisfaction with the healthcare services at the KBTH.

7.3. Satisfaction with Healthcare Services

This section presents discussion of the analysis relating to the satisfaction with the healthcare accessed at the KBTH. The elderly persons' satisfaction with the utilisation of healthcare services was evaluated by their outlook concerning the degree at which healthcare services were accessible at the period and place required, and whether the elderly persons observed a positive change in their health status (Andersen & Aday, 1978; Andersen & Newman, 2005; Rebhan, 2008). The sub-themes have been presented below.

Outcome

Satisfaction with healthcare services hinges on whether the elderly persons observed a transformation in their health as an outcome of the healthcare services received (Andersen & Aday, 1978; Andersen & Newman, 2005; Rebhan, 2008). The Korle-Bu Teaching Hospital provides primary healthcare to the elderly persons by curing sicknesses and preventing diseases. Moreover, the hospital provides secondary healthcare to the elderly persons by aiding their health to return to their former state of function. Furthermore, the hospital provides tertiary healthcare services by stabilising long term irreversible ailments such as cardiovascular diseases and diabetes mellitus (Andersen & Newman, 2005; Andersen & Newman, 1973; Rebhan, 2008). The various healthcare services provided at the hospital led to the satisfaction of the elderly persons. The elderly persons in the study observed that the benefits of healthcare service utilisation outweighed the barriers they encountered because their state of health became better and stabilised. Regarding healthiness, Awoyemi et al. (2011) maintain that a better health leads to perfection in life expectation, that is a strong pointer of a person's improvement.

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7.3.1. Healthy Life (Cues to Action and Self Efficacy)

The Korle-Bu Teaching Hospital receive referred cases from other hospitals and clinics in and outside Ghana. Since the elderly persons in this present study were diagnosed with NCDs, they perceived that they were susceptible to disease conditions(s). The health personnel informed the elderly about the benefits of the treatments. The elderly persons had confidence in the treatments and took action(s) although there were barriers and challenges such as expensive cost of medication(s), laboratory investigation(s) and other healthcare services. The elderly persons observed a positive change in their health status and mentioned that they were satisfied with the healthcare services rendered to them because their objective(s) of having a better, improved and stabilised health was achieved.

The argument of Rosenstock (1990) and Rosenstock et al. (1988) was that, when an individual observes that he or she is susceptible to a serious disease condition(s), the individual person will take an action when the benefits of the action outweigh the barriers of the action. In addition, when the individuals have confidence to undergo the treatment(s), although the treatments may involve unpleasant and painful procedures, the individuals will adhere to the treatment protocol in order to have good health. Although the procedures may be expensive, the individual will take an action to utilise the healthcare services because of the benefits to prolong life, prevent complications and live a healthy life. When the individual person perceives that his/her health status has improved and become stabilised, the individual will describe the healthcare services rendered as satisfactory (Andersen, 1995; Rosenstock 1990; Rosenstock et al., 1988).

Improved Stabilised Health (Perceived Susceptibility, Perceived Benefits and Self-Efficacy)

In relation to the Health Belief Model, the elderly persons who attended the KBTH observed that they were highly vulnerable to a more serious condition(s) and developing

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complication(s) of the disease(s) if they did not utilise the health facility to receive medical care. The elderly persons analysed the benefits [reducing the severity of the disease, pain, pre-mature death] and the barriers [cost of healthcare services, waiting time, journey to KBTH, health personnel attitude] and took an action [utilising the healthcare services], which in effect, reduced the threat of the disease, pain, complication and pre-mature death (Orji et al., 2012; Rosenstock et al., 1988). The elderly persons in this study placed an importance on a specific goal, which was improved health. The elderly persons estimated the likelihood that a given action [utilising the healthcare services] would achieve their goal of improved health and overcome the disease threat, the severity of the disease or avoid illness and to get better and live their later years gracefully (Janz & Becker, 1984; Orji et al., 2012).

The elderly persons analysed the vulnerability of developing complications. This perceived vulnerability produced a force leading to a behaviour to take an action; this behaviour was to utilise the healthcare services. The course of action offset the barriers (cost of healthcare services and cost of transportation to the unit) because their main objectives were to have improved health and that, their health would be stabilised. Their objective to have a better health was attained. This made the elderly satisfied although they faced challenges utilising the healthcare services (Janz & Becker, 1984; Orji et al., 2012).

Similar issues have been documented in America and Europe on satisfaction with healthcare services based on the improvement of their health (Fenton et al., 2012; Stankunas et al., 2016). Aliman and Mohamad (2016) identified that satisfaction had a high positive effect on the intention of the clients with respect to healthcare service utilisation. From the findings of this study, the clients faced various barriers and challenges but due to their improved health, which was a positive sign, they continued to utilise the healthcare units.

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The present study revealed that the elderly persons were satisfied with the healthcare services because their health had improved but were dissatisfied with the waiting time. Apparently, the elderly who waited to see the doctor in less than two hours were as dissatisfied as those who waited to see the doctor for more than two hours. The elderly participants stated that the waiting time should be improved. In a similar study, Hassali et al. (2014) documented that, waiting time was significantly associated with client satisfaction. The authors specified that participants who waited for more than two hours were less satisfied than those participants who waited for less than two hours. In addition, the authors stipulated that waiting time was the key factor that affected satisfaction, and other issues that influenced satisfaction included duration of consultation period and the procedure of client registering (Hassali et al., 2014).

7.4. Summary of the Chapter

This chapter discussed the findings of the study in relation to relevant literature and was guided by the Health Belief Model (Ajzen, 2012; Rosenstock et al., 1988), Andersen healthcare utilisation model (Ronald Andersen & Newman, 2005) and Donabedian model of quality care (Ibn El Haj et al., 2013; McCance, 2003). The organisation of the discussion chapter was based on the objectives of the study.

The elderly in this study perceived that they were susceptible to complications from chronic diseases they had, and utilised the healthcare services. The elderly were cognizant of the benefits of the healthcare services that outweighed the barriers to the healthcare services utilisation. The elderly used the resources in the family to empower them to utilise the healthcare services. It was observed that, when there was no assistance, they stayed at home or defaulted in utilising the healthcare services.

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The interaction between the elderly and the health personnel was observed to involve minimal support and harsh responses from the health personnel. The qualified health personnel and the available equipment used to care for the elderly persons led to an improvement in their health.

The elderly were generally satisfied with the healthcare services because their health improved. Thus, they were able to manage the threat by taking an action, which was to utilise the healthcare services. The next chapter presents the summary, conclusion and recommendations of the study.

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CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

8.0. Introduction

This chapter presents the summary, conclusions, contribution to knowledge (contribution to policy and practice, management of health institutions, contribution to theory and contribution to methodology) recommendations and future research as the key sections therein.

8.1. Summary of the Study

Quality and utilisation of healthcare services among the elderly persons are of very significant concern for both the elderly person as well as the health personnel. The study was conducted at Korle-Bu Teaching Hospital in Accra, to assess the utilisation, quality and satisfaction with healthcare accessed by the elderly persons. The mixed-methods approach was adopted, specifically sequential explanatory mixed methods to collect data. Questionnaires were administered to elicit information for the quantitative study. The elderly were interviewed for more details and clarifications for the quantitative study.

Generally, the study established that the elderly experienced some challenges in the utilisation of healthcare services such as cost and accessibility of healthcare services. The elderly persons explained that cost and accessibility might prevent them from utilising the healthcare services. Additionally, the elderly persons with more chronic conditions experienced low levels of quality of healthcare. However, the qualified and competent health personnel and availability of equipment led to improved health. The elderly persons were satisfied with the care accessed at the hospital because they observed that their health had improved and stabilised. The conclusion drawn in relation to the specific objectives have been presented in the next section.

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8.2. Conclusions of the Study

This section presents the conclusions based on the specific objectives of the study.

Utilisation of Healthcare Services

The study assessed the association between predisposing, enabling and need factors and utilisation of healthcare services by the elderly utilising Korle-Bu Teaching Hospital. The study concludes that, cost is a determining factor in utilising healthcare by the elderly patients at the Korle-Bu Teaching Hospital.

Quality of Healthcare Services

This study described the quality of healthcare accessed by the elderly utilising Korle-Bu Teaching Hospital. The qualitative findings described the health personnel at the Korle-Bu Teaching Hospital as skilful and knowledgeable of their area of work but the quantitative results revealed that, there was a decreased trend in the quality of healthcare received by the elderly patients, which were related to an increased number of chronic diseases.

Satisfaction with Healthcare Service

This study explored the perception of satisfaction with healthcare accessed by the elderly utilising KBTH. The qualified health personnel and availability of equipment contributed to the improvement of the health of the elderly persons in this study. The elderly persons perceived that they were diagnosed with a serious disease condition(s) and adhered to the treatments because the benefits outweighed the barriers. The elderly in this study were satisfied with the healthcare services because they observed that their healthcare were better and had become stable. This is consistent with the findings of Mollaoğlu et al. (2010) who reported that the important factor of the elderly life satisfaction was their health condition and the view of health.

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8.3. Contribution to Knowledge

This section presents the contributions that the study makes to policy and practice, and management of healthcare institutions, theory and methodology.

Contribution to Theory

The study makes some contributions to knowledge in terms of theory. The Health Belief Model has six constructs, namely: perceived susceptibility, seriousness, benefits, barriers, cues to action and self-efficacy. The findings of the study could be extended to the theory of Health Belief Model in terms of how the elderly persons took an action to utilise the healthcare services although they were faced with challenge of healthcare cost. The elderly further acted to seek financial assistance from their children to enable them to complete their action of utilising healthcare services. In addition, the study has added a seventh construct to the existing six constructs. The seventh construct is "satisfaction". The individual who takes an action is satisfied when that individual evaluates his/her health as improved, and he/she is better and healthier.

Although different theories, including the HBM have been applied to explain findings of studies on the elderly either in Ghana or elsewhere, this study appears to be one of the few studies that have applied the HBM to explain the findings of a study among the elderly at a tertiary or teaching hospital such as KBTH. The synchronisation of the concepts of utilisation, quality of care and satisfaction helped to explain the key factors and reasons underling the perspectives of quality of care among the elderly persons. The novel thing was how the findings, from all these concepts were explained by the theoretical perspective of the HBM.

This means that, in providing healthcare to the aged population, there is the need to consider factors that motivate them to utilise a particular healthcare intervention, their understanding of what constitutes quality of care, and how or what makes them satisfied.

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Without considering these interactions, healthcare providers may see utilisation, quality of care and satisfaction based on only the functional and technical aspects as argued in the literature (Ibn El Haj et al., 2013).

Contribution to Management of Health Institutions and Policy and Practice

The findings of this study would enable the management teams of healthcare institutions/hospitals to develop needed elderly friendly healthcare services to enhance access to quality care among this population.

In addition, the findings of this study on accessibility, cost of healthcare services and waiting time on utilisation of healthcare services will provide policy cues to reform policy on ageing. In addition, it will aid in formulation of healthcare polices in Ghana for the increasing number of the elderly population since Ghana is yet to formulate any policy for the elderly.

Currently in Ghana, there appears to no policy or law specific to the needs of the aged and ageing population. Therefore, it is anticipated that, the key findings of this current study could be used by healthcare policy makers and those of the Ministry of Gender, Children and Social Protection, in either developing a policy (where there is none-existing) or support the development of any ageing policy (where there are attempts to develop one). The study argues that there is the need to synchronise efforts between all stakeholders so as to come up with an acceptable and a workable national policy on the aged or ageing population in the country and other setting with similar challenges in dealing with the provision of a quality healthcare for the aged.

Contribution to Methodology

A mixed-methods approach combined quantitative and qualitative approaches in the same study. This enable the researcher to understand the various occurrences that could not have

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been understood totally using one method. The use of the sequential explanatory method also made it easier to determine which questions to pose for more clarification from the previous information provided by the participants. The use of the sequential explanatory method illuminated the rationale behind the observed satisfaction among the elderly although the elderly experienced numerous healthcare difficulties.

Studies which used one research method were unable to explain in detail the rationale of their findings. Lin et al. (2011) used the quantitative approach to examine utilisation of elderly beneficiaries of National Health Insurance in Taiwan. However, the study could not explain the reasons of the low turnout of male beneficiaries on utilisation of healthcare services. Awoke et al. (2017) were unable to further explain the rationale of the findings of their study on reasons that influenced the choice of OPDs services because they used one research method.

The study makes contribution to research methodology by applying the theoretical perspectives of positivism, interpretivism and postmodernism. The choice of these assumptions led to the choice of the mixed methods. This application ensured methodological triangulation such that the deficiencies in one research method were rectified by the strength in the other method. The use of quantitative study helped to qualify the responses while the qualitative study helped to provide meanings and understanding of the elderly person’s understanding of factors that influenced utilisation, quality of care and satisfaction with healthcare services at the Korle-Bu Teaching Hospital.

8.4. Recommendations

This section presents the recommendations based on findings of the study.

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8.4.1. Policy Makers at Ministry of Health, Ghana Health Services

Short Term Goal

The National Health Insurance Act, 650 of2003 (Act 650) and National Health Insurance Regulation, 2004 (L. I 1809) and Acts 852 of 2012 exclude persons aged 70 years and above from paying NHI premium (Blanchet et al., 2012; Gobah & Liang, 2011). Elderly persons less than 70 years also encountered more barriers with the influence of cost on utilisation of healthcare services. This situation calls for the policy on NHI exemption for the elderly 70 years and above to be reviewed to include age 60 years and above. This will enable the elderly persons aged 60 years and above to utilise healthcare services without much difficulties.

Long Term Goal

In Ghana, there is no policy for elderly persons. The ageing bill for the elderly persons should be formulated by policy makers to enable the elderly to age gracefully.

8.4.2. Management and Health Facility

1. The study revealed that, the elderly persons spent long stressful time waiting for the doctors. The Chief Executive Officer and management should revisit the review dates by using "appointment time" to reduce the waiting time.
2. The OPDs are made up of all age groups. The OPD patients see the doctors on the basis of first come, first served. The elderly persons were not given any preferences in seeing the doctors. The CEO of the hospital could provide geriatric unit (an area on the ground floor) solely for the elderly to be seen by the doctors to prevent long stressful waiting time and difficulties in accessing healthcare services.

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8.4.3. Social Support Strengthening

Currently, the elderly and yet-to-be elderly should make provision for healthcare towards their old age to enable them to access healthcare services without challenges. Families should provide financial and physical support for the elderly.

8.5. Future Research

A comparative study on quality healthcare services accessed by the elderly at the public and private health facilities, should be undertaken by future researchers.

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APPENDICES

Appendix 1: KBTH Institutional Review Board

In case of reply the number
And the date of this
Letter should be quoted

My Ref. No. KBTH/MW/9317
Your Ref. No..........................

KORLE BU TEACHING HOSPITAL
P. O. BOX KB 77,
KORLE BU, ACCRA.

Tel: +233 302 667759/673034-6
Fax: +233 302 667759
Email: Info@kbth.gov.gh
pr@kbth.gov.gh
Website: www.kbth.gov.gh

5th May, 2017

DELALI ADWOA WUAKU
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF GHANA, GHANA

CHALLENGES ASSOCIATED WITH THE UTILIZATION OF HEALTHCARE BY THE ELDERLY AT KORLE BU TEACHING HOSPITAL

KBTH – IRB /00013/2017

Investigator: Delali Adwoa Wuaku

5th May, 2017, the Korle-Bu Teaching Hospital Institutional Review Board (KBTH IRB) reviewed and granted approval to the study entitled "Challenges Associated with the Utilization of Healthcare by the Elderly at Korle Bu Teaching Hospital"

Please note that the Board requires you to submit a final review report on completion of this study to the KBTH-IRB.

Kindly, note that, any modification/amendment to the approved study protocol without approval from KBTH-IRB renders this certificate invalid.

Please report all serious adverse events related to this study to KBTH-IRB within seven days verbally and fourteen days in writing.

This IRB approval is valid till 30th April, 2018. You are to submit annual report for continuing review.

Sincere regards,

OKYERE BOATENG (MR)
CHAIR (KBTH-IRB)

Cc: The Chief Executive Officer
Korle Bu Teaching Hospital

The Director of Medical Affairs
Korle Bu Teaching Hospital

University of Ghana http://ugspace.ug.edu.gh

Appendix 2: KBTH Scientific and Technical Committee

In case of reply the number And the date of this Letter should be quoted

My Ref. No. KBTH/MD/G3/17

Your Ref. No.........................

KORLE BU TEACHING HOSPITAL
P. O. BOX KB 77,
KORLE BU, ACCRA.

Tel: +233 302 667759/673034-6
Fax: +233 302 667759
Email: Info@kbth.gov.gh
pr@kbth.gov.gh
Website: www.kbth.gov.gh

5th May, 2017

DELALI ADWOA WUAKU
SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF GHANA, GHANA

CHALLENGES ASSOCIATED WITH THE UTILIZATION OF HEALTHCARE BY THE ELDERLY AT KORLE BU TEACHING HOSPITAL

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Sincere regards,

OKYERE BOATENG (MR)
CHAIR (KBTH-IRB)

Cc: The Chief Executive Officer
Korle Bu Teaching Hospital

The Director of Medical Affairs
Korle Bu Teaching Hospital

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Appendix 3: Permission Letter from the School of Public Health

School of Public Health
College of Health Sciences
University of Ghana, Lagon.
14th February, 2017.

Chief Executive Officer
Korle-Bu Teaching Hospital
P O Box KB 77
Accra.

Dear Sir/Madam,

PERMISSION TO USE YOUR FACILITY FOR RESEARCH STUDY

I am a Ph.D. student of the University of Ghana, School of Public Health. I am conducting a study on healthcare service utilisation by the elderly. The purpose of the study geared towards improving the utilization rate of healthcare services by the elderly. This study will be conducted in partial fulfilment for the award of a Doctorate degree in Public Health. Permission is being sought to use your facility as the setting for the study. Clients will not be coerced to take part in the study. Participants will be made aware they have the right to withdraw from the study at any point in time. The procedure will be explained to the clients (including the fact that there will be no monetary gains to be achieved). Their consent will be sought through the signing of a consent form, before they are given a questionnaire. All data leading to the identification of any participant will be excluded in the study. The researcher and her supervisors will be the only people who will have access to the data. The findings of the study will be disseminated to policy makers, CEO of the hospital, Departmental Heads of the hospital and School of Public Health library.

Thank you for your kind consideration.

Yours faithfully,

Delali Adwoa Wuaku

Cc
DDNS, Korle-Bu Teaching Hospital
DDNS, OPD

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Appendix 4: Invitation Letter to Participate in the Study on Assessment of the Quality Healthcare among the Elderly Patients Utilising the KBTH

Clients who are 60 years and above and have used this healthcare facility for over a month are invited to partake in this study. Please, take five minutes to read the information on the next page and decide whether you would like to complete questionnaires on healthcare services utilisation by the elderly.

It is hoped that the results of this study will inform policy decisions at the hospital.

Thank you.

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Appendix 5: Participant Information Sheet

Research Heading: Assessment of the quality healthcare among the elderly patients utilising the KBTH, Accra.

My name is Delali Adwoa Wuaku. I am pursuing a Ph.D. in Public Health at the University of Ghana, Legon. I would like to invite you to participate in this study if you have been attending this facility and you are 60 years and above. I am carrying out the study as part of my Ph.D. programme.

The purpose of the research

The purpose of the study is geared towards improving the utilisation rate of healthcare services by the elderly.

How was I selected to partake in the research?

The study is being conducted at the Korle-Bu Teaching Hospital. You have been chosen to participant because you are 60 years and above, have utilised this facility for over one month, and you have agreed to participate in the study.

The benefits in the research?

There is no direct or immediate benefit in taking part in this study. No monetary rewards will be given. However, data collected from you may help policy makers meet the needs of the elderly with utilisation of healthcare services and the hospital managers to have an idea on the challenges the elderly associate with the utilisation of health care services.

Cost of partaking

Filling out the questionnaire will be done once. It will take a maximum of 45 minutes. You may be interviewed for more explanations on unclear answers. Your time is valuable, but your participation in this study will go a long way to improve utilisation of the healthcare services for the elderly.

How is my confidentiality secured?

Your privacy is protected through the use of pseudo-names on the demographic data. No material that could identify you will be used in the study. The only people to have access to the questionnaire and the recordings will be the Research Supervisors. The hard copies will be stored safely under a locked cabinet by the researcher and the soft copies will have pass word. These will be destroyed five years after the study.

How will I find out about the research results?

After the thesis has been completed and accepted, copies will be made available at the School of Public Health Library. The work will be made available for publication in medical journals.

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Opportunity to consider invitation

If you have any question about the study, contact these numbers,

Delali Adwoa Wuaku

Phone number: 0248061087

Supervisor: Dr. Reuben K. Esena

School of Public Health

Phone number: 0277220276

Augustine Adomah-Afari

School of Public Health

Phone number: 0265435294

Dr. Patience Aniteye

School of Nursing &Midwifery

Phone number: 0244681352

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Appendix 6: Consent Form of KBTH-IRB

Heading of Research: Assessment of the quality healthcare among the elderly patients utilising the KBTH, Accra.

Primary Investigator: Delali Adwoa Wuaku, a Ph.D. student of School of Public Health, College of Health Sciences, University of Ghana, Legon.

General Information about Research

Objective: To assess the quality of healthcare among the elderly patients utilising Korle-Bu Teaching Hospital, Accra.

Purpose: The purpose of the study is geared towards improving the utilisation rate of healthcare services by the elderly.

Participant's participation in the study will require filling out a questionnaire that will take a maximum of 45 minutes, and 60 to 90 minutes of an interview for few selected elderly.

Possible Risks and Discomforts: participants will not encounter any possible risks or discomfort in the study.

Probable Remunerations: participants involved in the study will be awarded in the form of refreshment after participating.

Privacy: your privacy is protected through the use of pseudo-names (codes) on the demographic data. No material that will identify you will be used in the study. The only people to have access to the questionnaire will be the researcher supervisor. The hard copies will be stored safely under locked cabinet by the researcher and the soft copies will have pass word.

Reward: participants will be compensated in the form of refreshment after participation.

Extra Fee: there will be no additional cost involved in the study.

Voluntary Participation and Right to leave the Research: participants will not be coerced to take part in the study. Participants will be made aware they have the right to withdraw from the study at any point in time. Their withdrawal will not affect their treatment and care at the unit.

Contacts for Further Info: Dr. Reuben K. Esena, PhD, 0277220276

This study has been revised and accepted by the Institutional Review Board of Korle-Bu Teaching Hospital for Health Investigation (KBTH-IRB). If you have any queries about your rights as a study partaker you can contact the IRB office between the times of 8 hours-17 hours through the phone line 0302666766 or electronic mail addresses: rdo@kbth.gov.gh

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AGREE ARRANGEMENT

The overhead document relating the profits, threats and processes for the study title assessment of the quality healthcare among the elderly patients utilising the Korle-Bu Teaching Hospital has been recited and clarified to me. I have been given the chance to ask any queries about the study, and replied to my contentment. I decide to partake as a volunteer.

-- ------------------

Name and signature: Date:

If volunteers cannot read the form themselves, an eyewitness must sign here:

I was present while the profits, threats and processes were recited to the volunteer. All queries were replied and the volunteer has decided to partake in the study.

--- ------------------

Name of signature of eyewitness: Date:

I confirm that the nature and aim, the possible profits, and likely dangers related with the partaking in this study have been clarified to the above person.

-- ------------------

Name of signature of individual who got consent: Date:

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Appendix 7: Questionnaire on Assessment of the Quality Healthcare among the Elderly Patients Utilising the Korle-Bu Teaching Hospital

Name of OPD: Date of interview:

Questionnaire number: Telephone number:

Time of interview started: Time interview ended:

Name of interviewer:

SECTION A: Socio-Demographic Characteristics

	QUESTIONS AND FILTERS	ANSWERS	
A1.	How old are you? (age in years)		
A2.	Gender	Male Female	1 2
A3.	Marital status	Single Married Widow/widower Separate Divorced Co-habitation	1 2 3 4 5 6
A4.	Educational level	No formal education Standard-seven/middle school secondary/vocational /technical Professional/ polytechnic University	1 2 3 4 5
A5.	Are you a worker?	Yes No	1 2
A6.	If No to question A5 are you on pension?	Yes No	1 2
A7.	How much do you earn in a month?	< GH₵500.00 GH₵501.00- GH₵1000.00 GH₵1001.00 - 1500.00 Above GH₵1500.00	1 2 3 4
A8.	How much is your daily expenditure?	Below 20gh₵	1

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		20-50ghȻ 51-100ghȻ Above 100Ȼ	2 3 4
A9.	How much cost of drugs do you spend in a month	Below 50ghȻ 51-100ghȻ 101-150ghȻ 151-200ghȻ Above 200ghȻ	1 2 3 4 5
A10.	How many illnesses are you diagnosed of?		
A11.	Name the conditions you have been diagnosed of?		
A12.	How long have you been diagnosed of these condition(s)?		
A13.	How long have you use this facility?		
A14.	How will you rate your health?	Excellent Good Fair Poor Very poor	1 2 3 4 5
A15.	Are you a beneficiary of NHIS?	Yes No	1 2
A16.	Are you staying alone?	Yes No	1 2
A17.	Who are you staying with?	Spouse Son/daughter Relative Friend No one	1 2 3 4 5
A18.	Place of residence?	Korle-Bu environs Greater-Accra Region Outside Greater-Accra Region	1 2 3
A19.	How long have you utilized this unit?		
A20.	Why do you use this hospital?	Proximity	1

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		Availability of health personal Availability of equipment Healthcare services provision All of the above	2 3 4 5
A21.	By what means do you come to the unit?	Private car Public transport Trekking	1 2 3
A22.	Who accompanies you to the unit?	Spouse Child Grandchild Relative Care-giver No one	1 2 3 4 5 6
A23.	When do you visit the unit?	For review When you fall sick When you are seriously sick	1 2 3
A24.	How often do you visit the unit?	Every month Every two month Every three month Other	1 2 3 4
A25.	What time do you report at the unit?		
A26.	What time do the doctors come?		
A27.	What time do you see the doctor?		
A28.	How many hours do you spend at the unit?		
A29.	Do you receive any financial assistance from your family?	Yes No	1 2
A30.	Do you receive any other financial support?	Yes No	1 2

SECTION B: QUALITY OF HEALTHCARE SERVICES

Instructions: This scale is made up of a list of statement each of which you or may not agree.

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For each statement Tick 1 if you strongly disagree; Tick 2 if you disagree; Tick 3 if you neither disagree nor agree, or not sure; Tick 4 if you agree; and 5 if you strongly agree (Baltussen et al., 2002).

	QUESTIONS AND FILTERS	**Strongly disagree 1**	**Disagree 2**	**Neutral 3**	**Agree 4**	**Strongly agree 5**
B1.	The waiting areas are spacious and comfortable.					
B2.	There are enough consulting rooms at the unit.					
B3.	You have confidence in the doctors?					
B4.	You have confidence in the nurses?					
B5.	There are enough nurses at the unit.					
B6.	There are enough doctors at the unit.					
B7.	You are able to access your medication at the unit?					
B8.	You go to other unit(s) to perform your investigation(s)					
B9.	The unit is accessible.					
B10.	The waiting time is excellent at the unit.					
B11.	The waiting list is excellent at the unit.					
B12.	The doctors involve you in decisions concerning your treatments.					
B13.	The doctor listens					

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	carefully to you and then writes.					
B14.	Pharmacist gives clear instructions about drugs.					
B15.	The OPD waiting area or room is conducive.					
B16.	Doctors are not responsive to your concerns.					
B19.	The seating or sitting arrangements are comfortable enough for you.					
B20.	The floor is non-slippery and well maintained.					
B21.	The furniture and fittings are well arranged to reduce possible falls or injuries.					
B22.	As a beneficiary of NHIS, are you able to access healthcare services at the unit?					
B23.	As a beneficiary of NHIS, are your drug(s) covered?					
B24.	As a beneficiary of NHIS, are your investigation(s) covered?					
B25.	Do you receive physical support from nurses?					

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B26.	Do you receive physical support from doctors?					
B27.	Do you receive physical support from other health workers at the unit?					
B28.	Family members support you physically at the unit					

SECTION C: UTILISATION OF HEALTHCARE SERVICES AT THE UNIT

Instructions: This scale is made up of a list of statement each of which you or may not agree. For each statement Tick 1 if you strongly disagree; Tick 2 if you disagree; Tick 3 if you neither disagree nor agree, or not sure; Tick 4 if you agree; and 5 if you strongly agree (Baltussen et al., 2002).

	QUESTIONS AND FILTERS	**Strongly disagree 1**	**Disagree 2**	**Neutral 3**	**Agree 4**	**Strongly agree 5**
C1.	Availability of healthcare services.					
C2.	Difficulties in getting into the building					
C3.	Cost of medication.					
C4.	Nurses are not responsive to your concerns.					
C5.	Cost of transport to the unit.					
C6.	Shame and embarrassment prevent you to seek medical care.					
C7.	Cost of healthcare services.					
C8.	Communication difficulties in accessing care					

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C9.	Time spent at the unit is a problem.					
C10.	Doctors are not responsive to your concerns.					
C11.	Cost of laboratory investigations					
C12.	You experience long waiting list.					
C13.	You experience long waiting time to see the doctor.					
C14.	Healthcare services are accessible at the unit.					
C15.	Costs of healthcare affect your utilisation of the unit.					
C16.	Partial coverage of NHI affects utilisation of healthcare services at the unit.					
C17	Unaffordable cost of healthcare services affect					
C18.	Other staff are not responsive to your concerns					

Thank you for your time spent.

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Appendix 8: Semi-structured (in-depth) Interview Guide for the Elderly on Assessment of the Quality Healthcare among the Elderly Patients Utilising the Korle-Bu Teaching Hospital

Introduction

The study seeks to assess the utilisation and quality of healthcare by the elderly attending KBTH. It will take a maximum of 60 minutes of your time.

Section A: Demographic Characteristics

Please, I would like to get some information about you. I would be grateful if you could help answer these few questions for me.

Age

Which of these describe your age range?

Below 70 years (…)

Seventy (70) years and above (…)

Gender

What is your sex?

Male (…)

Female (…)

Marital status

Spouse (…)

No spouse (…)

Ethnicity

Which of the following ethnic origins do you belong to?

Akan (…), Ewe (…), Ga (…), Other (specify)……………………………………………..

Are you a beneficiary of NHIS? Yes (…..), No (…..)

Area of Residence

Please where do you reside? ………………………………………………

Number of children

Please, this is a bit sensitive! How many children do you have or look(ed) after?

1-5 (…), 6-10 (…), 11 or more (…)

Level of education

Please, what is your highest level of education?

Pre-secondary school education (…)

Secondary school education and above (…)

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Occupation

What is/was your occupational background?

Farmer or Fisherman (..), Fishmonger (..), Civil or Public Servant (..), Private sector (..)

Name(s) and number of disease(s) diagnosed

Please, this is also a bit sensitive! Do you have an idea of the name or the kind of disease or health condition you have been diagnosed of?

Hypertension (…), Diabetes (…), Stroke (…), Arthritis (…), Prostate enlargement (…), Retinopathy (…), Cataract (…), Glaucoma (…), Heart disease (…), others (specify) …

Section B: Utilisation of Healthcare Services at the Unit

This part of the interview will seek to explore some of the challenges in utilising healthcare services at the unit or hospital. Prompts:

1. Could you please, explain to me, some of the challenges on utilising healthcare services at the unit?
2. Would you be able to enumerate to me, how seeing the doctor influences your utilisation of healthcare services?
3. Would you be able to describe to me, how the waiting time to see the doctor influences you in utilising healthcare services at the unit?
4. Would you be able to describe to me, how the cost of healthcare influences you in utilising healthcare services?
5. Would you be able to describe to me, how you perceive the availability of healthcare to influence you in utilising healthcare services?
6. Would you be able to tell me about any factors that you perceive as likely to influence you in utilising services provided at this unit?
7. This question is a bit sensitive. Would you like to explain to me, how you manage to get money to buy your drugs and pay healthcare services?

Section C: Quality of Healthcare Services at the Unit

This part of the interview will also help us to explore your perception of quality healthcare services received at the unit or hospital. Prompts:

1. Would you be able to describe to me, how the doctors communicate with you at the unit?
2. Would you be able to describe to me, how the nurses communicate with you at the unit?

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3. Would you be able to describe to me, how the health personnel [doctors, nurses and other staff] are responsive to your health concerns?
4. Would you be in a position to tell me how the cost of and availability of drugs at the unit influence your perception of quality of care?
5. Would you be able to explain to me, how the seats and the sitting arrangements at the waiting room help to enhance your perception of quality of healthcare services at the unit?
6. Could you please describe to me the inconveniences you experienced at the unit?
7. To what extent do you perceive the cleanliness of the unit as enhancing your perception of quality of healthcare services?
8. Would you be able to describe to me, how you perceive the quality of healthcare services received from the doctors?
9. Would you be able to describe to me, your perception of the quality of healthcare services received from the nurses?
10. Would you be able to describe to me, your perception of the quality of healthcare services received from the other staff at the unit?
11. I would be interested to know this from you; how do the doctors provide physical support at the unit when you utilise health services?
12. Would you be able to describe to me, how nurses provide physical support at the unit when you access health care services?
13. I would be interested to know this from you; how do the other health workers provide physical support at the unit when you utilise health services?

Section D: Satisfaction of healthcare services at the unit

1. I would be interested to know, are the healthcare services provided at the unit satisfactory?
2. Would you be glad to explain why the healthcare services are satisfactory?
3. I would be interested to know this from you; how would you describe a healthy life.

Thank you.

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Appendix 9: Interview Sessions at the Consulting Rooms

Source: Field Data (2017)

Source: Field Data (2017)

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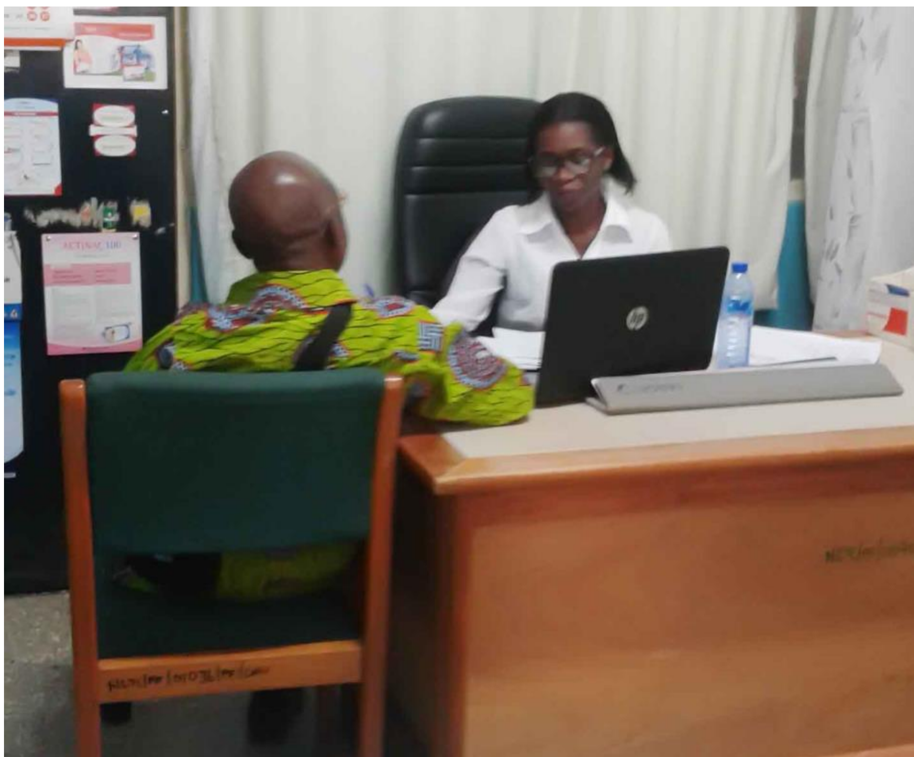
Source: Field Data (2017)



Source: Field Data (2017)

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Source: Field Data (2017)