UNIVERSITY OF CAPE COAST

PERCEIVED QUALITY OF LIFE OF THE AGED WITH DISABILITY IN SELECTED DISTRICTS IN THE UPPER WEST REGION OF GHANA

BISMARK NANTOMAH

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University of Cape Coast

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BY

BISMARK NANTOMAH

Thesis submitted to the Department of Population and Health of the Faculty of Social Sciences, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Doctor of Philosophy degree in Population and Health

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DECLARATION

Candidate's Declaration

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

Candidate's Signature …………………………… Date ………………..

Name: Bismark Nantomah

Supervisors' Declaration

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

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

Name: Prof. Augustine Tanle

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

Name: Prof. Eugene Kofuor Maafo Darteh

ABSTRACT

The rate at which people age with disability is increasing with respect to the growing aged population in Ghana. This increasing number of the aged with disability is occurring at a time when there is declining social support for the aged in the Ghanaian traditional family system. The main objective of this study was to assess the perceived overall Quality of Life (QOL) of the aged with disability in the Wa Municipality, Nadowli-Kaleo, Jirapa and Wa East districts in the Upper West Region of Ghana. The study was guided by the International Classification of Functioning, Disability and Health (ICF) framework. The quantitative and qualitative methods were employed. Questionnaires, In-Depth Interviews (IDIs) and Focus Group Discussions (FGDs) guides were used to collect the data. The study surveyed 810 respondents, interviewed 20 key informants (IDIs) and 62 adult care-givers participated in the FGDs. The Kruskal -Wallis statistical test was used to analyse the data. The study found that the aged with disability who were aged 60 – 69 years and those who were married had the highest mean scores in overall QOL. This notwithstanding, the study revealed that the overall QOL of the aged with disability was generally low and this reflected in their physical, psychological, social relations and environmental health QOL. The study recommends that family members, the government and non-governmental organisations should endeavour to provide physical, psychological, social relations and environmental health needs of the aged with disability. This could be provision of food, medical aids, counselling and leisure centres for the aged with disability.

KEY WORDS

Upper west region

Quality of life

Overall QOL

Physical health QOL

Psychological health QOL

Social relations QOL

Environmental health QOL

Aged with disability

Visual disability

Physical disability

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DEDICATION

I dedicate this work to my loving father Chief Joseph Bugri Nantomah

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LIST OF ACRONYMS

ACP	Africa, Caribbean and Pacific
AFRAN	African Research on Ageing Network
AIDS	Acquired Immunodeficiency Syndrome
ANOVA	Analysis of Variance
BLSA	Baltimore Longitudinal Study of Aging
CBR	Community-Based Rehabilitation
CSPS	Centre for Social Policy Studies
DAB	Danish Association of the Blind
DACF	District Assemblies Common Fund
DFID	Department for International Development
DNA	Deoxyribonucleic Acid
FGDs	Focus Group Discussions
GAB	Ghana Association of the Blind
GAPA	Ghana Association of Persons with Albinism
GBU	Ghana Blind Union
GFD	Ghana Federation of the Disabled
GFD	Ghana Federation of Disability Organizations
GH¢	Ghana Cedis
GHS	Ghana Health Service
GJA	Ghana Journalist Association
GLSS	Ghana Living Standards Survey
GNAD	Ghana National Association of the Deaf

GSB	Ghana Society for the Blind
GSPD	Ghana Society of the Physically Disabled
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
HrF	Health-Related Functioning
IBM	International Business Machines
ICF	International Classification of Functioning, Disability and Health
ICIDH	International Classification of Impairment, Disability and Handicap
ID	Identification
IDI	In-Depth Interview
IDIs	In-Depth Interviews
IG	Inclusion Ghana
ILO	International Labour Organization
JHS	Junior High School
LEAP	Livelihood Empowerment Against Poverty
LI	Legislative Instrument
MCBR	Mobile Community-Based Rehabilitation
MEHSOG	Mental Health Society of Ghana
MMDAs	Metropolitan, Municipal and District Assemblies
MTN	Mobile Telephone Networks
NCPWD	National Council on Persons with Disability

NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
PRB	Population Reference Bureau
NSPS	National Social Protection Strategy
PWD	Person with Disability
PWDs	Persons with Disabilities
PWSD-CT	Persons with Severe Disabilities Cash Transfer
QOL	Quality of Life
RNA	Ribonucleic Acid
SPSS	Statistical Product and Service Solutions
SSNIT	Social Security and National Insurance Trust
TFR	Total Fertility Rate
UCCIRB	University of Cape Coast Institutional Review Board
UDS	University for Development Studies
UN DESA	United Nations, Department of Economic and Social Affairs
UNDP	United Nations Development Programme
US	United States
USEPA	United States Environmental Protection Agency
WHO	World Health Organization
WHOQOL	World Health Organization Quality of Life
WHOQOL-BREF	World Health Organization Quality of Life-BREF

CHAPTER ONE

INTRODUCTION

Background to the Study

Population ageing around the world is increasing in substantial proportions (Ferreira & Kowal, 2006; World Health Organization [WHO], 2015). This phenomenon of population ageing occurs when there is a shift in the population structure where the proportion of people in older age groups increases (WHO, 2015). Globally, the proportion of the aged (60 years and older) population is expected to rise from 8 to 19 percent by 2050 while that of children is to fall from 33 to 22 percent (United Nations, 2002). The pace of population ageing in the world is much greater than had been the case in the 1950s (United Nations, 2009; WHO, 2015). For instance, the world's aged population particularly those aged 60 years and older in 1950 was 200 million, by 1975 it had increased to 350 million, by 1999 it increased to nearly 600 million, it increased further to almost 810 million in 2012 and it is projected to increase to1.2 billion and 2 billion in 2025 and 2050 respectively (United Nations, 2002; Kalasa, 2005; Velkoff & Kowal, 2007; Ghana Statistical Service, 2013a).

Even though, generally, there is global population ageing, there are marked variations across the world (Bloom, Canning & Fink, 2011). For instance in 2012, Europe was considered the oldest region of the world with 22 percent of its population aged 60 years and older, followed by 19 percent in Northern America, 15 percent in Oceania, 11 percent in Asia, 10 percent in Latin America and the Caribbean and 6 percent in Africa (United Nations Population Fund &

HelpAge International, 2012; Kwankye, 2013). It is further projected that by 2050, Europe will continue to have the largest aged population of 34 percent, followed by Northern America with 27 percent, Latin America and the Caribbean with 25 percents, Asia and Oceania with 24 percent respectively, and Africa with 10 percent (United Nations Population Fund & HelpAge International, 2012).

According to Beard *et al*. (2012), the interplay of three major dynamics of population is responsible for this global population ageing: declining fertility, increased longevity, and declining mortality. In relation to fertility, the world's Total Fertility Rate (TFR) declined from 5 children per woman in 1950 to roughly 2.5 in 2011, and is projected to further drop to about 2.2 by 2050 (Beard *et al*., 2012; United Nations, Department of Economic and Social Affairs [UN DESA], Population Division, 2013). In 2010, life expectancy at birth was 68 years in developing countries and 78 years in developed countries and it is projected to increase to 74 years in developing countries and 83 years in developed countries by 2050 (Ghana Statistical Service, 2013a). Besides, there is a global decline in mortality rate due to medical and public health interventions that sharply cut the death toll from the most infectious diseases which enable many more children to survive to adulthood (Mensah, 2003; Population Reference Bureau [PRB], 2014).

In Ghana, the population of the aged (elderly) increased from 213,477 in 1960 to 1,643,381 in 2010 constituting 4.5 and 6.7 percents of the total national populations respectively (Ghana Statistical Service, 2013a). Among the aged population of 1,643,978, females were 918,378 (55.9%) while males were 725,003 constituting 44.1 percent as of 2010 (Ghana Statistical Service, 2013a;

Kwankye, 2013). Unlike the other regions of the world where most of the aged cohort are 80 years and older, in Ghana those aged between 60 and 74 years constitute 68.2 percent of all the aged population (Kwankye, 2013; UN DESA, Population Division, 2013).

Another dimension of the aged population in Ghana is that there is a higher proportion of women than men living up to 70 years and over, resulting in a larger population of older females (WHO, 2014a). Increasing life expectancy is also one of the factors that have brought about population ageing in Ghana (Ghana Statistical Service, 2012). Life expectancy at birth is reported to have increased from an estimated 45.5 years in 1960 to 52.7 years in 1984 and further to 60.2 and 63.4 years for males and females respectively in 2010 (Ghana Statistical Service, 2013a; Kwankye, 2013). People can now live longer because of improved nutrition, sanitation, medical advances, health care, education and economic well-being (United Nations Population Fund & HelpAge International, 2012). Besides, TFR which is the average number of children born to a woman over her lifetime has dropped from 6.5 in 1960 to 3.3 in 2010 (Ghana Statistical Service, 2013b).

Ageing is conceived as a normal biological process, which involves the cumulative deposition of damaged and defective cellular components, loss of cell or organ physiological functions and inability to perform physical activity (Aydos, 2012). The Hayflick Limit Theory posits that the ageing process is controlled by a biological clock contained within each living cell (Hayflick & Moorehead, 1980). In line with this, the immunological theory finds the immune system of an individual as programmed to decline over time, which leads to an increased vulnerability to infectious diseases and thus ageing and death (Jin, 2010).

Globally, ageing has a major influence on disability and as a result there is a higher risk of disability at older ages (WHO, 2011; Kwankye, 2013). This is because aged people experience an accumulation of health challenges throughout their lives which lead them to a state of disability (WHO, 2014a). Disability is described as a limitation of an individual in performing specific tasks functioning at levels considered as normal (Mann, 2004; WHO, 2011). There are many types of disabilities and these include: visual, physical, speech, emotional and hearing disabilities (Ghana Statistical Service, 2013a). In the analyses of the Global Burden of Disease 2004 data, it was observed that out of the nearly 6.5 billion of the world's population, the prevalence of disability in lower income countries among people aged 60 years and older was 43.4 percent while 29.5 percent was recorded of higher income countries (WHO, 2011). Disability can range from mild to severe, constant to episodic, and whether a person is considered to have a disability is highly dependent on their physical, cultural and legal environments (Braithwaite & Mont, 2009).

Throughout the world, severe disabilities among those aged 60 years and older in 2004 was estimated at 10.2 percent with a regional distribution of 16.9 percent in Africa, 9.2 percent in America, 12.6 percent in South-East Asia and 7.2 percent in Europe (PRB, 2007; WHO, 2011). In spite of the fact that the proportion of older people is greater in high-income countries, older people in these countries are relatively less disabled than their counterparts in low and middle income countries (WHO, 2011).

Globally, the majority of the aged population are affected by non-communicable diseases such as stroke, visual impairments, heart diseases, cancers and diabetes, rather than from infectious and parasitic diseases (PRB, 2007; WHO, 2014a). In the world at large, sensory declines including visual and hearing impairments are a broad category of normal age-related changes that often lead to loss of independence which eventually diminishes the Quality of Life (QOL) of aged people (WHO, 2014a). Despite the increase in life expectancy at birth, a substantial part of the old and very old population will have to face frailty and dependency (Tesch-Roemer, 2012).

The loss of independence of the aged with disability calls for support for them but the society which could have provided such support also gives little attention especially during emergency situations (HelpAge International, 2008). It has also been observed that when communities are displaced by natural disasters the disabled aged people are often unable to flee or travel long distances and are left behind without support (HelpAge International, 2008; WHO, 2014a).

People with disability are considered as one of the disadvantaged groups in the society; they are subject to stigma, neglect, discrimination, limited social and economic opportunities and freedom of choice (Ba-Ama & YaabaAckah, 2014; Vergunst, Jenkinson, Burns & Simon, 2014). That is why QOL is viewed as a broad concept which incorporates a person’s physical health, psychological state, level of independence, social relationships, personal beliefs, and environmental factors that affect him or her (WHO, 2011). Though QOL is a multifaceted concept, this study ascribes to the description that “Quality of life is defined as individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.” (WHO, 1996, p. 5). Perception is conceived as the ability of individuals to derive meaning of their behaviour or other people’s behaviour (Can, 2008). In order to discern others’ way of life, individuals need to attend to and perceive the available cues of other people, whether in their verbal or nonverbal behaviour, that contain information about their inner qualities (Jones, 1990; Bodenhausen & Hugenberg, 2009). In many Ghanaian societies for instance, it is perceived that a person's sin is responsible for his/her disability (United Nations Development Programme [UNDP], 2007).

Gabriel and Bowling (2004) contend that within societies there are common core values, and that their presence or absence will determine the overall QOL of the disabled aged. This relates more to the social support that families and the community at large are obliged to make available to the aged with disability in traditional societies (Brown, 1992; Apt, 2007). In this case, the measurement of QOL should reflect the subjective and objective views of the aged with disability taking into account their wider social, economic and psychological circumstances (Brock, 1993; Kwankye, 2013). This all-encompassing measurement is due to the fact that many older people are marginalised and imbedded in chronic poverty which in turn exacerbates their degenerative effects of ageing including hypertension, malnutrition, diabetes, hearing and eyesight challenges (HelpAge International, 2008).

The provision of readily available support in the form of services, assistive devices and financial resources form objective QOL (Li, Ji & Chen, 2014). In a similar vein, the satisfaction the aged with disability derive from the support in the form of services, assistive devices, financial resources and positive self esteem form subjective QOL (Diener & Suh, 1997). Despite the increasing population of the aged with disability and the issue of their QOL, little attention is given by African governments to providing non-contributory public-funded social security schemes for all aged people and this leaves such aged with the traditional family care which has become weak (Kasala, 2011; Kwankye, 2013). Moreover, many African countries turn to focus much of their investments in their young populations, especially in the areas of health and education, to the detriment of the aged people (Ghana Statistical Service, 2013a). Steiner-Asiedu, Pelenah, Bediako-Amoa and Danquah (2010) established that, in Ghana, the aged are particularly vulnerable to food insecurity due to their reduced income and physical capabilities, and they are also predisposed to poverty.

The issue of population ageing in particular seems to have eluded sub-Saharan African countries because they have not made enough economic progress and comprehensive policy action to cater for the aged (Mba, 2007a; Aboderin, 2010). The increasing proportion of older population presents challenges to policymakers, families, non-governmental organisations, religious bodies and health care providers who need to meet the needs of the ageing individuals

(Smith, 2000; Velkoff & Kowal, 2007). Despite these growing challenges, it has been very difficult to promote awareness on ageing as an important issue to be tackled by national policies (Apt, 2005; Tawiah, 2011). In the Ghanaian context for instance, the national ageing policy has not been fully implemented (National Population Council, 2007). In furtherance, despite the fact that a bill had been passed in parliament in 2010 for adequate public attention to be paid to the conditions of all persons with disability in Ghana, its implementation has remained ineffective and inefficient (Ghana Statistical Service, 2013a).

Statement of the Problem

The Ghanaian aged population is increasing with corresponding increase in the proportion of the aged with disability population (Smith, Rayer & Smith, 2008; Ghana Statistical Service, 2013a). Besides, the ageing population is affecting the older-person support ratio (the number of persons aged 15-64 years per older persons aged 65 years and older), which has negative implications for the socio-economic and political structures of most societies (Cohen, 2002; Kalasa, 2005; United Nations, 2009).

As population ages, the potential older-person support ratio tends to fall at different time periods (Cohen, 2002). To illustrate this, between 1950 and 2009, the potential older-person support ratio globally declined from 12 to 9 potential workers per person aged 65 or over (United Nations, 2009). By 2050, the potential older-person support ratio is projected to drop further to reach four potential workers per older person (Cohen, 2002; United Nations, 2009). The declining nature of the potential older-person support ratio means that less people are available in providing care to the aged. Even though medical technological advances have added years to the life of individuals, it does not necessarily mean quality to life (Smith, 2000).

Some of the determinants of QOL of an individual include physical health, social relationships, spirituality, income, education, self-esteem and community participation (WHO, 1996; Bloom, Craig & Malaney, 2001). Income for instance, is a powerful determinant of QOL and has become the dominant measure of human wellbeing (Bloom *et al*., 2001). It is widely stressed that among the most urgent concerns of older persons worldwide, is income security (United Nations Population Fund & HelpAge International, 2012). Though there are many factors which determine the QOL of an individual, this study is guided by the WHOQOL -BREF four domains of QOL which are physical health, psychological health, social relations and environmental health (WHO, 1996).

In many Ghanaian communities especially among the Akan, a person who becomes disabled is precluded from holding any traditional political office or occupying any leadership position in the community (UNDP, 2007). There is empirical evidence that, in Ghana, most aged people especially the disabled and women have arrived in old age after a lifetime without formal education, worked in the informal sector and devoid of pension benefits (Ogwumike & Aboderin, 2005; Ghana Statistical Service, 2013a). Even those who benefit from the Social Security and National Insurance Trust (SSNIT) pension scheme are still found in the poverty trap because the amount offered to majority of pensioners is too meagre to serve them adequately (National Population Council, 2007).

Although both children under age 15 years and adults aged 65 years and older fall within dependent population, health interventions in Ghana concentrate on children to the neglect of the aged (HelpAge International, 2008; Aboderin, 2010). For instance, policy interventions on vitamin A supplementation and nutrition tend to focus on the needs of children below five years, lactating mothers and other younger population groups while few or little interventions are available for the aged (Ministry of Employment and Social Welfare, 2010; Ghana Statistical Service, Ghana Health Service, and ICF International, 2015). Equally, assistive devices such as optical glasses, wheelchairs, crutches, hearing aids, hand braces and leg braces could have been provided free of charge to the aged with disability (Bateni & Maki, 2005; Mann, 2004). Besides, in most hospitals in Ghana, there are paediatric wards but geriatric wards are unavailable and this might be compounded by the fact that most health care professionals may not be trained in geriatric care to serve the aged professionally (HelpAge International, 2008; Ministry of Employment and Social Welfare, 2010; Kwankye, 2013).

Further, it has been observed that the QOL of the aged with disability is threatened because many of the aged people particularly the disabled are engaged in begging in the streets of cities and major towns in Ghana (Apt, 1993; HelpAge International, 2008). This begging enterprise is worrying just as the proportion of disability among the aged has increased to about 12.3 percent as compared to 2.3 percent of the population aged less than 60 years in 2010 (Apt, 1993; Ghana Statistical Service, 2013a). Mont (2007) has pointed that the World Bank in 2002, upon realising the crucial link between disability, equity and poverty, started mainstreaming disability into its operations and analyses. Mont (2007) is, however, quick to state that the availability of high quality data on disability that is important for planning, implementation, monitoring, and evaluation of inclusive policies are often not available.

Other studies including the 2010 Population and Housing census of Ghana have been carried out on issues related to the aged, however, limited information on the QOL of the aged with disability in Ghana appears to exist (Mba, 2006; Steiner-Asiedu *et al*., 2010; Ghana Statistical Service, 2012). It is significant to note that the way the aged with disability construct their QOL at various levels remains a neglected but increasingly important area for research and public policy (Gabriel & Bowling, 2004). Besides, some studies have shown evidence of declining social support provided by the traditional family system as informal source of social protection to the aged in Ghana (Apt, 1993; Mba, 2007b; Makoni, 2008; Ghana Statistical Service, 2013a, Darteh, Nantogmah & Kumi-Kyereme, 2014), therefore, there is the need to research into the perceived QOL of the aged with disability.

Objectives of the Study

The main objective of this study was to assess the perceived overall Quality of Life (QOL) of the aged with disability in the Wa Municipality, Nadowli-Kaleo, Jirapa and Wa East districts in the Upper West Region of Ghana. The specific objectives were to:

1. analyse the perceptions of the aged with disability about their physical health QOL;

2. examine the psychological health QOL of the aged with disability;
3. analyse the social relations QOL of the aged with disability;
4. examine the environmental health QOL of the aged with disability; and
5. explore the perceptions of community members about QOL of the aged with disability.

Research Questions

This study sought to find answers to the following questions:

1. How do the aged with disability perceive their overall QOL?
2. How do the aged with disability perceive their physical health QOL?
3. What is the psychological health QOL of the aged with disability?
4. What is the nature of social relations QOL of the aged with disability?
5. What are the environmental health QOL conditions under which the aged with disability live?
6. How do community members perceive the QOL of the aged with disability?

Hypotheses of the Study

Based on the objectives of the study and the adapted conceptual framework, the following hypotheses were set to guide the study:

H_0: Socio-demographic characteristics (age, type of disability and marital status) have no significant effect on overall QOL of the aged with disability;

H_1: Socio-demographic characteristics (age, type of disability and marital status) have significant effect on overall QOL of the aged with disability;

H_0: Socio-demographic characteristics (age, type of disability and marital status) have no significant effect on physical health QOL of the aged with disability;

H_1: Socio-demographic characteristics (age, type of disability and marital status) have significant effect on physical health QOL of the aged with disability;

H_0: Socio-demographic characteristics (age, type of disability and marital status) have no significant effect on psychological health QOL of the aged with disability;

H_1: Socio-demographic characteristics (age, type of disability and marital status) have significant effect on psychological health QOL of the aged with disability;

H_0: Socio-demographic characteristics (age and marital status) have no significant effect on social relations QOL of the aged with disability;

H_1: Socio-demographic characteristics (age and marital status) have significant effect on social relations QOL of the aged with disability;

H_0: Socio-demographic characteristics (sex, age and marital status) have no significant effect on environmental health QOL of the aged with disability; and

H_1: Socio-demographic characteristics (sex, age and marital status) have significant effect on environmental health QOL of the aged with disability.

Significance of the Study

Disability in old age is complex and the interventions required to overcome this disability are numerous and vary depending on individuals' experiences of disability (WHO, 2011). Individuals who survive up to old age are experiencing increasing limitation in functioning and require some particular attention to maintain or improve upon their QOL (WHO, 2011). There is therefore the need to research into the QOL of the aged with disability so as to inform people to plan in advance for old age disability.

This study therefore provides the basis for understanding the peculiar concerns of the aged with disability (Mont, 2007). Also, the findings of the study could inform policies and programmes aimed at providing either specific or general services to the aged with disability (Apt, 2005; Mont, 2007). This is because evidence-based research is needed in QOL of the aged with disability to guide the formulation of policies and programmes meant to improve upon the QOL of the aged with disability (Janneh, 2008; WHO, 2011).

Further, the study augments the limited literature on issues concerning the aged with disability in Ghana (Gabriel & Bowling, 2004; Amao, 2014). In addition, it could serve as bedrock on which similar research can be conducted. Furthermore, it is in fulfilment of Ghana's National Ageing Policy objective that there is the need for scientific research on issues of ageing so as to address individual and societal health implications of ageing (Ministry of Employment and Social Welfare, 2010).

Organisation of the Study

The study is organised into seven chapters. Chapter One consists of the background to the study, statement of the problem, objectives of the study, research questions, hypotheses of the study and significance of the study.

Chapter Two comprises review of conceptual and theoretical literature. This chapter discusses issues on quality of life (QOL), concepts of ageing and old age, theories of population ageing and ageing, concept and models of disability, activities of daily living and instrumental activities of daily living, social care models for the elderly, social capital for the aged, concept of self esteem, conceptual framework for the study and summary.

Chapter Three presents contextual and empirical literature on issues of global population ageing, ageing policy in Ghana, disability trend in Ghana, disability among the aged in Ghana, persons with disability Act, 2006 Act 715 of Ghana, poverty and disability, and social exclusion of Persons with Disabilities (PWDs) in Ghana. This Chapter also discusses social protection programmes for the aged and PWDs, PWDs organisations, Non-Governmental Organisations (NGOs) for the aged in Ghana, participation of the aged in society, assistive devices and human assistance for PWDs, quality of life of the aged and summary.

Chapter Four focuses on the research methods of the study. This Chapter comprises the introduction, research philosophy, research design, study area, study population, sample size, sampling procedure, data collection instruments, training of field assistants, pre-testing of instruments, data collection procedures, challenges encountered on the field, ethical issues, data processing and analyses and summary.

Chapter Five describes the socio-demographic characteristics of the aged with disability by sex and type of disability. Also, it assesses the overall quality of life (QOL) by socio-demographic characteristics of the aged with disability. Again, this chapter presents findings on physical health QOL, psychological health QOL, social relations QOL, and environmental health QOL by socio-demographic characteristics of the aged with disability respectively. A discussion of the results and summary is presented as the last section**.**

The socio-demographic characteristics of key informants and adult care-givers are presented in Chapter Six. Perceptions of the key informants and adult care-givers on quality of life (QOL) of the aged with disability are discussed. The analyses and discussion cover overall QOL, physical health QOL, psychological health QOL, social relations QOL and environmental health QOL of the aged with disability and summary. Chapter Seven presents a summary of the study, summary of main findings, conclusions, recommendations, contributions to knowledge, strengths and limitations of the study and areas for further research.

CHAPTER TWO

REVIEW OF CONCEPTUAL AND THEORETICAL LITERATURE

Introduction

This chapter discusses issues on the concept of quality of life (QOL), concepts of ageing and old age, theories of population ageing and ageing, concepts and models of disability, activities of daily living and instrumental activities of daily living, social care models for the elderly, social capital for the aged, concept of self esteem, and the conceptual framework for the study.

Concept of Quality of Life

There are divergent views regarding QOL (Tsakiri, 2010). It is a construct used in many disciplines including psychology, marketing, medical care, ecology, economics and sociology (Smith, 2000; Murphy, O'Shea, Cooney & Casey, 2007). This concept has been viewed in objective and subjective perspectives by many researchers (McCall, 1975; Kerce, 1992; Li *et al*., 2014). The hallmark of objective QOL is based on explicit standards of quantitative statistics while that of subjective QOL concerns self-appraisals based on implicit criteria (Kerce, 1992; Veenhoven, 2000; Li *et al*., 2014). For instance, the issue of how much income an individual earns at the end of the month is objectively viewed but as to how much satisfied or dissatisfied an individual perceives his or her income is based on subjective stance (Diener & Suh, 1997; Veenhoven, 2000). Subjectively, QOL is viewed as a judgment of one's own life which arises from the overall perception that the individual holds towards what is seen to be significant at a particular point in time (Tsakiri, 2010; Amao, 2014).

Kerce (1992) argues that QOL is the degree at which the experience of an individual's life satisfies his / her wants and needs, both physically and psychologically. QOL could be an accumulated experience of feelings of joy, pleasure, contentment and life satisfaction (Diener & Suh, 1997). QOL has also been viewed in the parameters of happiness and unhappiness of an individual’s life (Nordenfelt, 1993). If an individual’s needs and wants are attained, he or she would be happy with life otherwise he or she would be unhappy (Nordenfelt, 1993; Diener & Suh, 1997). Salvador and Pilar (2013) suggest that the QOL of an individual is driven by external and internal factors. The external factors are the available services provided to the individual by institutions established by the society (Tesch-Roemer, 2012; Li *et al.*, 2014). Some of these services include education, health, transportation, security and financial services (Nordenfelt, 1993; Wilson & Cleary, 1995; Salvador & Pilar, 2013). Hence, individuals, in particular, objectively achieve high QOL when their income is high, health is good, social support systems are available and reliable, and when they have accessible means of transportation (Tesch-Roemer, 2012).

The internal factors of QOL, in contrast, are innate and include optimism, spirituality, self-esteem, perceived control and adaptation (Veenhoven, 2000; Bloom *et al.*, 2001, Salvador & Pilar, 2013). In this sense, individuals are perceived to have either positive or negative QOL (Salvador & Pilar, 2013). Individuals who have positive QOL have better attitudes to face the challenges and problems of life (Veenhoven, 2000; Li *et al.*, 2014). For instance, their perception of a health problem is being positive and they participate more in social activities within their community (Vest, Murphy, Araujo & Pisani, 2011).

Diener and Suh (1997) contend that QOL is based on the satisfaction obtained from one’s preferences because in the midst of scarce resources individuals will select those things that will most enhance their lives. In this perspective, goal attainment brings about happiness among individuals and this correlates positively with good QOL (Amao, 2014). It equally conveys an overall sense of well-being, including aspects of happiness and satisfaction with life as a whole (Centers for Disease Control and Prevention, 2000; Tripathi, 2012).

In the same vein in which QOL is described, it is equally measured based on objective and subjective parameters (Tesch-Roemer, 2012; PRB, 2015). Objective measurement of QOL determines the level at which individuals’ basic needs such as food, shelter, economic security, social relationships, and health care are being met (Kerce, 1992; Veenhoven, 2000). In contrast, subjective QOL finds out about an individual’s judgment concerning how satisfying his or her life is on the availability or non-availability of material and non-material needs over an extended period of time (PRB, 2015). It particularly determines how well individual needs are being met (Diener & Suh, 1997).

In this discourse, issues of QOL will be centred upon an individual’s ‘perceived’ way of life and it is not expected to provide the means of measuring the symptoms or conditions of diseases of individuals but rather the effects of disability on their life (WHO, 1996; Amao, 2014). Additionally, one of the ways of measuring QOL of individuals is by the subjective evaluation of their cultural, social and environmental context (WHOQOL Group, 1997; Amao, 2014).

In other literature, QOL is viewed from four different domains: physical health QOL, psychological health QOL, social relations QOL and environmental health QOL (WHO, 1996). Physical health QOL is described as the way individuals perceive their ability to use their motor skills (WHO, 1996; WHOQOL Group, 1997). Psychological health QOL is depicted as the feeling of good or bad about an individual's life (WHO, 1996). On the other hand, social relations QOL is considered as the satisfaction individuals derive from their relationship with other people (WHOQOL Group, 1997). Environmental health QOL is conceived as the perception individuals have about their safety and availability of resources in their environment (WHO, 1996; WHOQOL Group, 1997). In addition, perceived QOL is the perception individuals have about themselves or other people in the context of their culture and goals (WHO, 1996).

Notwithstanding diverse views on the meaning and measurement of QOL, Schalock *et al*. (2002) have grouped QOL into eight domains, namely interpersonal relations, physical wellbeing, self determination, social inclusion, emotional wellbeing, material wellbeing, personal development, and rights. These domains have other specific dimensions such as:

- Interpersonal relations; affection, affiliations, friendships, intimacy, and interactions.
- Physical wellbeing; health care, mobility, wellness, and nutrition.

- Self determination; choices, personal control, decisions and personal goals.
- Social inclusion; natural supports, integrated environments, and participation.
- Emotional wellbeing; safety, stable and predictable environments, and positive feedback.
- Material wellbeing; ownership, possessions and employment.
- Personal development; education and habilitation, purposive activities, and assistive technology.
- Rights; privacy, ownership, due process and barrier free environments (Schalock *et al*., 2002).

In brief, three approaches have been identified in determining QOL. The first is based on the systems available which could be social, economic, religious and political. The second is the satisfaction individuals derive from their needs. The third is life experiences of individuals (Brock, 1993; Schalock *et al*., 2002, Amao, 2014).

Concepts of Ageing and Old Age

Ageing and old age are viewed differently by different scholars, societies and regions (Kinsella & Phillips, 2005). Harman (1981) defines ageing as the progressive accumulation of physiological changes with time which result in an ever-increasing susceptibility of an individual to disease and death. Similarly, ageing means declining vision, hearing loss and wrinkles as the skin’s underlying structure of an individual becomes more and more brittle (Giddens, Duneier &

Appelbaum, 2005). Ageing is not only fatal, but also costly because the elderly must constantly undergo treatment for their age associated diseases (Hung, 2011).

In a differing perspective based on modernisation theory, ageing is perceived as the period where the status, knowledge, traits and skills of older people are deemed less relevant or less valuable as the society becomes more civilised (Kinsella & Phillips, 2005). Further, the disengagement theory of ageing argues that ageing is the mutual withdrawal of an individual from life roles at the point where his or her productivity declines (Putnam, 2002). In a broader perspective, ageing means reduced physical ability, declining mental ability, the gradual giving up of social roles, and a shift in economic status - moving from economic independence to economic dependence (Weeks, 1999; Dubey, Bhasin, Gupta & Sharma, 2011).

Wiley (2007) and Mercado-Sáenz, Ruiz-Gómez, Morales-Moreno and Martínez-Morillo (2010) have identified some characteristics of ageing and they include:

- Universality: Ageing affects all living beings.
- Irreversibility: Unlike diseases, ageing can neither be stopped nor reverted.
- Heterogeneity and individualism: Every species has a typical speed of ageing but the functional decline speed changes widely from subject to subject within the same species, and from organ to organ within the same individual.

- Detrimental: Ageing leads to a progressive loss of function. It differs from the process of growth and development in which the purpose is to reach a maturity in the function.
- Intrinsic: Also ageing is not due to environmental modifiable factors.

Old age is that late part of the human life span which creates a framework of physical and mental capability which becomes more restricted than that of the younger age groups (Heslop & Gorman, 2002; WHO, 2002a). In some regions, individuals are considered to be old when they reach age 55; in other areas, it is age 60 or 65 (Giddens *et al*., 2005; National Population Council, 2007). In Asia for instance, old age sets in at retirement age which ranges from 55 in Indonesia, Malaysia, and Thailand, to 65 in the Republic of Korea and the Philippines (Park & Estrada, 2012).

Similarly, in Ghana public sector workers go on retirement at age 60 and old age sets therein (National Population Council, 2007). Besides, old age is grouped into three based on the chronological threshold considered; the ‘young old’ for those aged 65 to 74, the ‘old old’ consisting of those aged 75 to 84, and the ‘oldest old’ for those aged 85 and older (Giddens *et al*., 2005).

Demographic Transition Theory

The theory of demographic transition was first formulated by Warren Thompson in 1929. Thompson described how traditional societies which originally had high death and high birth rates, over time transform into decreasing mortality, followed by decreasing birth rate in modern societies (Caldwell, 1976; Bygbjerg & Meyrowitsch, 2007). The shift towards low mortality and fertility rates occur as a result of modernisation systems including industrialisation, urbanisation, education and empowerment of women (Thompson, 1929; Economic Commission for Africa, 2001). Though, it was initially a three stage theory but has been modified and the modification has chartered the history of population growth into four stages characterised mainly by different rates of fertility and mortality (McCarthy, 2001; Eastwood & Lipton, 2011; Haub & Gribble, 2011).

Societies which are in the first stage are classified as traditional societies and are marked by high fertility and mortality rates (Nagnur & Nagrodski, 1990; Crampton, 2009). These high fertility and mortality rates are as a result of the absence of modern forms of public health services, transportation, sanitation and agriculture (Thompson, 1929; Teitelbaum, 1975). The mainstream argument for the high fertility particularly, within poor traditional societies is because of the lack of opportunities for individual advancement, and the economic value attached to having more children (Caldwell, 1976). For instance, families consider children as sources of labour on farm lands and a kind of informal social security during old age (McCarthy, 2001). These traditional societies are also characterised by rising dependency ratio driven by a rising young-age dependency rate (Eastwood & Lipton, 2011).

At the beginning of the second stage, societies are characterised by low death rates but with high birth rates (Nagnur & Nagrodski, 1990). However, at the latter part of this stage, fertility rates then slowly decrease to replacement level (Crampton, 2009). Public health plays a key role here as improved sanitation and health interventions promote infant, child and maternal health outcomes (Crampton, 2009). This stage is also associated with falling dependency ratio driven by falling young-age dependency (Eastwood & Lipton, 2011). Ghana could be placed in this stage because TFR has declined from 6.4 in 1988 to 4.4 in 2003 and further to 4.0 in 2008; this has brought about a decline of 2.4 children per woman within 20 years (Badasu, 2003; Haub & Gribble, 2011; National Population Council, 2011). The decreasing trend of the TFR in Ghana could be linked to a combination of factors including improvements in health conditions, increasing education and modernisation over the years (National Population Council, 2011). Equally, mortality rates in Ghana have been steadily declining within this same period, infant mortality declined from 77 per 1000 live births in 1988 to 57 in 1998 and further to 50 in 2008 (Haub & Gribble, 2011; National Population Council, 2011). By implication, both declining fertility and increasing life expectancy contribute to population ageing in the Ghanaian society (Lee, 2003).

In the third stage, there is low birth and death rates which in turn result to low growth rate (Nagnur & Nagrodski, 1990). Factors such as the rise in women's education, delayed marriage, and contraceptive use contribute immensely because parents no longer need to have children as an informal social insurance policy (Crampton, 2009). Societies in this stage experience slow rising dependency ratio driven by rising old-age dependency (Eastwood & Lipton, 2011). Countries including India, Gabon and Malaysia have reached this phase (Haub & Gribble, 2011).

In the fourth stage, fertility and mortality rates are considered very low which will result to large but stable population (Crampton, 2009; Haub & Gribble, 2011). This stage is characterised by rising dependency ratio driven by rising old-age dependency (Eastwood & Lipton, 2011). The fact is that the aged offer less labour and capital to various economies but inversely require more socioeconomic needs including long term health care (Crampton, 2009; Bloom *et al*., 2011). Developed countries such as Brazil, Germany and Japan are within this phase (Haub & Gribble, 2011). Generally, countries in this stage undergo structural changes including improved medical knowledge and increased access to education from the first stage to the second stage; and behavioural changes like individuals' intention to have fewer children from the third stage to the fourth stage (McCarthy, 2001).

There are some shortcomings associated with the demographic transition theory. The claim that rationality of child birth comes only with industrial urban society is highly ethnocentric and characterised by Western values (Caldwell, 1976). Also, it remains practically unclear the discontinuity between the first and the second stages of the demographic transition (Cliquet, 1991; Sobotka, 2008).

Again, it does not predict how large the population of any country will be in the future (McCarthy, 2001). Another criticism of this theory is the assertion that mortality decline always precedes fertility decline because in some communities in Europe, fertility and mortality declined simultaneously (Kirk, 1996).

Epidemiological Transition Theory

According to Agyei-Mensah and de-Graft Aikins (2010), the epidemiological transition theory was developed by Omran in 1971 to explain the consequences of the interplay between the patterns of health and disease and their socio-demographic determinants in the society. This theory as proposed by Omran has three stages: ‘age of pestilence and famine,’ ‘age of receding pandemics,’ and ‘age of degenerative and man-made diseases’ (Omran, 1971; Caselli, Mesle & Vallin, 2002). The first stage is referred to as the ‘age of pestilence and famine’ (Omran, 1971; Nagnur & Nagrodski, 1990). It has a number of characteristics including a high and fluctuating birth and death rates that reflected pre-modern day’s epidemics of infection and famine; major causes of death are infectious and parasitic diseases; and low life expectancy at birth (Nagnur & Nagrodski, 1990; Agyei-Mensah & de-Graft Aikins, 2010). Besides, the average life expectancy at birth varies between 20 and 40 years (Omran, 1971; Vallin & Meslé, 2004).

The second stage is the ‘age of receding pandemics’ (Nagnur & Nagrodski, 1990). The typical characteristics of any society in this stage are: Decreasing death rate; shift from death caused by infectious and parasitic diseases to degenerative disease mortality; increasing life expectancy at birth; and high fertility with its corresponding increase in population size (Nagnur & Nagrodski, 1990; Caselli *et al*., 2002; Harper & Armelagos, 2010). The focus of society at this level is improving the health care services which reduces the impact of infectious diseases on death rates (Agyei-Mensah & de-Graft Aikins, 2010). At this stage, the average life expectancy at birth increases steadily from about 30 to about 50 years (Omran, 1971; Vallin & Meslé, 2004). In terms of the causes of death, Ghana could be situated in this stage. The major causes of death in Ghana have shifted from predominantly communicable diseases to a combination of communicable and chronic non-communicable diseases over the last few decades (de-Graft Aikins, Addo, Ofei, Bosu & Agyemang, 2012). For instance, the prevalence of non-communicable diseases is increasing with malaria, diarrhoea, respiratory infection, and neonatal conditions being the major causes of child mortality in Ghana (WHO, 2009).

The third stage of the transition constitutes the ‘age of degenerative and man-made diseases’ (Harper & Armelagos, 2010). Its characteristics include: Decline in mortality till it reaches low levels; increasing rate of degenerative diseases; continuous rise in life expectancy at birth; and slowed population growth (Nagnur & Nagrodski, 1990; Caselli *et al*., 2002; Harper & Armelagos, 2010). Infectious and parasitic diseases are replaced with degenerative diseases as a result of much improvement in lifestyle, diet and occupation (Caselli *et al*., 2002; Agyei-Mensah & de-Graft Aikins, 2010). The average life expectancy at birth at this stage rises gradually until it exceeds 50 years (Omran, 1971; Vallin & Meslé, 2004). Based on the average life expectancy at birth as postulated by Omran (1971), Ghana could equally be fitted in this stage because life expectancy at birth is reported to have increased from an estimated 45.5 years in 1960 to 60.7 and 61.8 years for males and females respectively in 2010 (Kwankye, 2013).

This is a belated trend because the life expectancy at birth of the United States of America reached 68.2 years in 1950 (Himes, 2002). The theory contend that, at this level, with increased life expectancy, morbidity is delayed at least slightly, such that persons within a given age group are healthier and will cost the health system less in future years (Seshamani & Gray, 2004).

The epidemiological transition theory like any other theory has its limitations. Infectious and parasitic diseases can never be completely eradicated as postulated by the theory (Vallin & Meslé, 2004). For instance, the re-emergence of infectious diseases like diphtheria and tuberculosis in the former Soviet republics brought about increasing inequity and poverty to the people (Bygbjerg & Meyrowitsch, 2007). Also, the theory focuses solely on trends in mortality and fertility but remains silent on increased longevity for QOL and well-being among individuals (Barrett, Kuzawa, McDade & Armelagos, 1998). Besides, it has failed to consider the influence of cultural and social beliefs, political forces and national health policies in epidemiological transitions of various countries (Global Health Action, 2014). Further, it fails to foresee that the rise of man-made diseases would be curbed by efficient policies, and especially, that a scientific revolution could prevail to treat cardio-vascular diseases (Caselli *et al*., 2002).

Active Ageing

Ageing affects all organisms, however, among and within human populations a noticeable inter-individual variability exists with respect to the rate and the quality of ageing (D’Aquila, Rose, Bellizzi & Passarino, 2013). The term active ageing was adopted by the WHO in the late 1990s as a policy framework to promote the QOL of the elderly (WHO, 2002b). This concept is grounded in the United Nations principles of independence, participation, dignity, care and self fulfilment of individuals (United Nations, 1991). Hence, active ageing is viewed as a process of optimizing opportunities for health, participation and security in order to enhance QOL as people grow old (WHO, 2002b; Tesch-Roemer, 2012). This concept also refers to the activities that increase endurance, strength, flexibility, balance, and injury prevention among the elderly (United States Environmental Protection Agency [USEPA], 2009).

According to the WHO (2002b), older people who retire from work and those who live with disabilities can continue contributing to their families, peers, communities and nations depending upon a number of factors. These factors of active ageing include: culture and gender; health and social service systems; behavioural factors; personal factors; physical environment; social environment; and economic factors (WHO, 2002b; WHO, 2007).

Culture and gender are multifaceted themes of active ageing because societies offer different opportunities in enhancing QOL among individuals (Tesch-Roemer, 2012). Cultural values and traditions determine, to a large extent, how a given society conducts itself towards older people and the ageing process (WHO, 2002b; WHO, 2007). For instance, the culture of a given society will determine whether or not elderly co-residency with younger generations could enhance their QOL (Mba, 2007b). Gender issues cannot be left out because girls and women have lower social status and less access to nutritious foods, education and meaningful work in traditional societies and these increase their level of poverty and ill health during old age (WHO, 2002b).

Health and social service systems are purported to provide services without any sort of discrimination relating to the age of individuals (WHO, 2002b). Therefore, long term care for the aged living with disability is considered as a joint responsibility for both formal and informal caregivers so as to enhance their ageing with dignity and respect (United Nations, 1991; Walker, 2002). For instance, the National Health Insurance Scheme (NHIS) of Ghana which the vulnerable including people with disability and the aged who are 70 years and above subscribe to free health services serves as a basic health system which enhances the QOL of the aged with disability (Boon, 2007).

In terms of behavioural factors, determinants like healthy lifestyles and active participation in one’s own care are important at all stages of the life course (WHO, 2002a; Stenner, McFarquhar & Bowling, 2010). For instance, when people engage in appropriate physical activity, practice healthy eating, avoid smoking and alcoholism, they help themselves by reducing the onset of chronic diseases in their lives (WHO, 2002b).

Personal factors are conceived as biological and genetic factors which are natural determinants of life (WHO, 2002b; WHO, 2007). This means that an individual is born with a unique code and a predetermined tendency to certain types of physical and mental functioning that regulates the rate at which he or she ages and how long he or she lives with chronic diseases (Hossain, 2014). Despite this, for many people, lifestyle behaviours such as the avoidance of smoking, eating a balance diet, personal coping skills, and a network of close kin and friends can effectively modify the influence of heredity on functional decline and the onset of chronic diseases (WHO, 2002b; WHO, 2007).

Physical environment factors that are age friendly can make the difference between independence and dependence of older people in their daily activities (United Nations, 1991; WHO, 2002b). For example, the presence of sidewalks, parks and lifts in storey buildings will make the aged with disability independent in terms of their mobility (Tesch-Roemer, 2012). Also, accessible and affordable public transportation services will enhance older people's mobility in their bid to access health care, shop and participate in family and community activities (WHO, 2002b).

The social environment serves as the basis for enhancing health, community participation and security of individuals as they grow old (United Nations, 1991). In this sense, staying connected with friends and family members provides elderly people the platform to share their time, wisdom and experience which help them maintain their sense of purpose, get support, and avoid loneliness and social isolation (USEPA, 2009). In the Ghanaian context, older people who have distinguished themselves in various capacities in both public and private sectors have been appointed to membership of the Council of State, District Assemblies, Boards and Committees at both national and local levels after their retirement so as to continue to share their expertise in national development (National Population Council, 2007). This emphasises the importance of intergenerational solidarity which involves the exchange of resources between older and younger generations in the society (WHO, 2002b).

Economic factors such as work and income have significant effects on active ageing (WHO, 2002b). While poor people of all ages face an increased risk of ill health and disabilities, older people are particularly vulnerable due to the absence of regular sources of income (WHO, 2002b). Older people with lower economic status, especially those in rural areas face an increased risk of falls which worsen their disability status (WHO, 2007). As a result of this, sheltered workshops are established to promote active ageing in some countries. These sheltered workshops are work places which specifically employ disabled people (Mallender *et al*., 2015). Sheltered workshops are established by benevolent individuals, non-governmental organisations or the government and are put into two main types: traditional sheltered workshops; and transitional sheltered workshops (Mallender *et al*., 2015). The traditional sheltered workshops employ people with severe disabilities who cannot be integrated into the open labour market. On the other hand, transitional sheltered workshops provide disabled people with the requisite skills in order to enable them gain employment in the labour market (Visier, 1998; Mallender *et al*., 2015).

Successful Ageing

The concept of successful ageing is not only a matter of living longer in life but also, maintaining QOL in the accumulated chronological years (Kinsella & Phillips, 2005). This goes beyond health and longevity as it is rooted in a broader definition of 'the good life' in late-life (Glass, 2003). Successful ageing is viewed as maximizing desired outcomes and minimizing undesired ones (Kinsella & Phillips, 2005). Rowe and Kahn (1997) argue that successful ageing is achieved as a result of an interaction between three main components: reducing the risk of diseases and disease-related disability; engaging in activities that will promote good cognitive and physical functional capacity; and actively engaging in life's activities.

In a similar way, Glass (2003) regards successful ageing from two perspectives thus psychosocial and biomedical perspectives. In the psychosocial perspective, successful ageing is described as the mental state of an individual which makes him to be content with his available resources and to accept death when it strikes a loved one (Steverink, Westerhof, Bode & Dittmann-Kohli, 2001; Glass, 2003). In the biomedical perspective, successful ageing refers to the promotion of good lifestyle behaviour in order to avoid diseases and disability (Glass, 2003; Bowling & Dieppe, 2005). These perspectives explain why some people remain more active and healthier at older ages than other people (Kinsella & Phillips, 2005).

Dowd (1975) maintains that whether or not one age successfully depends on one's position in the political economy. Dowd establishes that where one works determines what one can expect during old age. For instance, if one works in the monopoly sector, he or she is likely to age successfully because of higher lifetime wages, private pensions and the accrual of more resources that serve to buffer the challenges that most elderly people experience during old age (Dowd, 1975; John, 1984).

On the basis of the activity theory, successful ageing is the continual execution of middle age activities and attitudes during old age (Havighurst, 1961). This theory suggests that both the frequency of participation in middle age activities and their level of intimacy are fundamental for life satisfaction among the elderly (Menec, 2003). On the contrary, the disengagement theory indicates that successful ageing is experienced by elderly people when they discontinue their middle age activities and attitudes (Cumming & Henry, 1961; Wadensten, 2006). By disengaging from middle age activities, the elderly attain a higher level of satisfaction while preparing themselves for death which is inevitable (Hochschild, 1975; Wadensten, 2006).

Baltes and Baltes (1990) developed the model of selective optimisation with compensation to explain the concept of successful ageing. This model postulates that people are in a continuous process of adaptation in their life course and by doing so, there are three interactive components which result to successful ageing: selection, optimisation and compensation (Cerrato & de Trocóniz, 1998). Selection pertains to the process of prioritising activities and resources to meet the basic needs of the individual (Baltes & Baltes, 1990). Optimisation means that the individual chooses possible functioning activities which will optimise his living standard in a specific number of areas of life (Cerrato & de Trocóniz, 1998).

Compensation concerns the process where an individual uses assistive devices or resources to compensate for his/her depreciating physical functioning (Baltes & Baltes, 1990). It can be concluded that, successful ageing is not only about not having to face any losses, but about dealing successfully with emerging chronic diseases and disabilities (Ouwehand, de Ridder & Bensing, 2007).

Theories of Ageing

The theories of ageing have been divided into three broad categories. These are biological theories of ageing, sociological theories of ageing, and psychological theories of ageing (Lueckenotte, 2000; Hossain, 2014; Cabrera, 2015). All these theories exist because there is no single theory that can explain all aspects of the ageing individual (Hossain, 2014; Cabrera, 2015). In this context, some of the biological, sociological and psychological theories of ageing are considered. The biological theories of ageing viewed are the genetic control theory, telomere theory, free-radical theory, mitochondria theory, and the 'wear-and-tear' theory (Lata & Walia, 2007; Park & Yeo, 2013). Also, some of the sociological theories of ageing looked at are the activity theory, disengagement theory, continuity theory, exchange theory, and modernisation theory (Cutler, 1977; Kinsella & Phillips, 2005). Again, the psychological theories of ageing discussed are Maslow's hierarchy of human needs theory, and selective optimisation with compensation (Jerome, 2013; Hossain, 2014).

The biological theories of ageing believe that ageing occurs as a result of limited genetic lifespan and the damage caused by overuse and abuse of the body and its cells (Lata & Walia, 2007). Also, the sociological theories of ageing focus on changing roles and relationships of the ageing individual while that of the psychological theories of ageing are concerned with the emotional or mental response of individuals to the task of their age as they chronologically age (Lueckenotte, 2000; Hossain, 2014).

Genetic Control Theory of Ageing

The genetic control theory of ageing argues that there is a genetic programming encoded within the Deoxyribonucleic Acid (DNA) of every individual and each individual is born with a unique genetic code (Lata & Walia, 2007). The unique genetic code determines how long each individual will live (Lata & Walia, 2007). These life span determining genes are inherited and they determine the process of ageing (Singh, 2009). This theory indicates that the presence of senescence genes control ageing-related phenomena due to a slowdown of the biochemical metabolic pathways (Park & Yeo, 2013).

The theory indicates that each individual has a biological clock ticking away and set to go off at a particular time (Lata & Walia, 2007). When that clock goes off, it signals that the body of that individual has to first age and then latter die (Burzynski, 2005; Lata & Walia, 2007). The theory has been supported by the fact that the average lifespan of humans has constantly increased in the past 100 years without big changes in the maximum lifespan of humans (Park & Yeo, 2013). Among the facts that support the involvement of genes as determinants of ageing are the following: The relatives of people with exceptional longevity have high probability of being well or long lived; the maximum life of each species is fixed and specific to that species; and the existence of genetic diseases that are expressed phenotypes of ageing (Cabrera, 2015).

Though, development is genetically set, there is doubt over which factor of the organism controls ageing (Linares, Rossell & Fuentes, 2005). Also the molecular mechanisms underlying the patterns of tissue and cell specificity are not yet clearly understood (D'Aquila *et al*., 2013).

Telomere Theory of Ageing

The continuous changes that occur during the process of ageing can be observed not only in the individual's anatomy and physiology, but also at the cellular and molecular levels (D'Aquila *et al*., 2013). The telomere theory of ageing suggests that the successive shortening of telomeres due to the division of cells results in the onset of ageing (Hung, 2011). The theory considers telomere shortening to be the main trigger of ageing (Bernadotte, Mikhelson & Spivak, 2016). The shortening of telomeres occurs in rapidly proliferating cells of the skin, gastrointestinal system and blood (Shay & Wright, 2007).

Telomeres are special DNA structures that cap the ends of eukaryote chromosomes (Aydos, 2012). They act to maintain the integrity of chromosomes by protecting the ends of the chromosome from DNA degradation (Lata & Walia, 2007; Hung, 2011). However, the imperfection of DNA replicating itself exists in eukaryotes only due to their linear DNA (Hung, 2011). When the telomeres reach a critical length, the cell stops replicating at an appreciable rate, and so it dies off and this eventually leads to the death of the entire organism (Jin, 2010). It is noticeable that this theory focuses on some biological aspects of ageing but fails to make any convincing arguments for the aetiology of ageing (Linares *et al*., 2005). Also, this theory is criticised on the basis that there is no proportional relationship between telomere length and biological age because in meta-analysis studies, the association of this parameter with mortality decreases with age (Boonekamp, Simons, Hemerik & Verhulst, 2013; Cabrera, 2015). Again, telomerase appears to be a feasible and viable option to delay or reverse ageing (Hung, 2011).

Free Radical Theory of Ageing

The free radical theory proposes that ageing is the cumulative result of oxidative damage to the cells and tissues of the body that arises primarily as a result of aerobic metabolism (Wickens, 2001; Park & Yeo, 2013). Free radicals cause cross linking of proteins and formation of age-pigments, hence irreversible damage to the human body system (Singh, 2009). A free radical is any chemical species such as an atom, ion or molecule that contains an unpaired or odd number of electrons (Halliwell & Gutteridge, 1989; Wickens, 2001). Free radicals are required by individuals for physiological functioning, however, they also attack the structure of an individual’s cell membranes, creating metabolic waste products like lipofuscins (Lata & Walia, 2007). Lipofuscins accumulate with increasing age and interfere with the ability of cells to repair and reproduce themselves (Lata & Walia, 2007; Wickens, 2001).

Free radicals also prevent the body from building muscle mass and destroy cellular enzymes, which are needed for vital chemical processes (Lata & Walia, 2007). Free-radical disruption of cell metabolism is part of what ages an individual’s cells (Frisard & Ravussin, 2006; Lata & Walia, 2007). Besides, oxidative damage contributes to many age-related diseases, such as cancer, heart disease, diabetes, and Alzheimer’s disease (American Federation for Aging Research, 2011). Again, electron leakages inherent to mitochondrial energy generate reactive oxygen free radical species that may place the ultimate limit on lifespan (Kidd, 2005). However, the body possesses some natural antioxidants in the form of enzymes which help to curb the dangerous build-up of these free radicals, without which cellular death rates would be greatly increased, and subsequent life expectancies would decrease (Pandey, Devmurari, Goyani & Bhavika, 2010).

Critiques of this theory suggest that some laboratories have shown in some cases that, with increased oxidative stress there is an increased longevity (Gladyshev, 2014; Cabrera, 2015). Also, if the free radical theory is correct, the lifespan should be prolonged by preventing free radical-induced oxidative damage when administering antioxidants in experimental animals (Park & Yeo, 2013). Besides, it is difficult to establish whether free radical reactions are a cause of the ageing process or not because of the fact that oxidative damage occurs in the cells and tissues of the body do not prove to be a causal agent of ageing (Wickens, 2001).

Mitochondria Theory of Ageing

The mitochondrial theory argues that ageing occurs due to mitochondrial dysfunction (Trifunovic & Larsson, 2008). The loss of effectiveness of one of the cell's key organelles paves the way for age-related degenerative diseases (Pandey *et al*., 2010). Damaged mitochondrial DNA leads to some biological changes including a decrease in energy production, an increase in free radical production, and accumulation of harmful molecules in the body system (Park & Yeo, 2013). For instance, oxidative damage to the mitochondrial DNA is associated with various degenerative diseases, cancer and ageing (Mandavilli, Santos & Houten, 2002).

The cumulative oxidative injuries to the mitochondria triggered by endogenous metabolic processes and exogenous oxidative influence cause the mitochondria to progressively become less efficient (Kidd, 2005). The theory indicates that increasing age in mammals correlates with accumulation of somatic mitochondrial DNA mutations and decline in respiratory chain function (Trifunovic & Larsson, 2008). Besides, exogenous factors that damage the mitochondria tend to accelerate cellular deterioration (Kidd, 2005).

Mitochondria are one of the easiest targets of free-radical injury because they lack most of the defences found in other parts of the cell (Lata & Walia, 2007). However, mitochondria are considered as the energy powerhouses of the cells because the unique function of mitochondria is to generate life energy (Kidd, 2005). A cell can contain hundreds of mitochondria DNA which encodes a subset of mitochondrial Ribonucleic Acid (RNA) and proteins (Kelly, 2011).

The link between mitochondrial DNA mutations and reactive oxygen species production is questioned because reactive oxygen species are certainly toxic and may damage a variety of cellular component (Trifunovic & Larsson, 2008; Kelly, 2011). However, there are also data to suggest that an organism may cope with increased reactive oxygen species damage without developing premature ageing (Trifunovic & Larsson, 2008). Besides, the theory fails to express to what extent the changes in the structure and function of mitochondria are causes or consequences of an individual's ageing (Passos, Zglinicki & Saretzki, 2006).

Wear and Tear Theory of Ageing

The wear and tear theory of ageing explains that ageing is as a result of the continued exposure of cells to noxious factors from both endogenous and exogenous sources throughout life which cause progressive deterioration of the human body system for survival (Linares *et al*., 2005). Particularly, cells and tissues have vital parts that wear out resulting in ageing (Jin, 2010). The wear and tear theory likens the human body to a machine which becomes damaged and eventually break down when utilised for a certain period of time, in this same vein, the human body also undergoes ageing due to damage from accidents, diseases, radiation, toxic substances, food, and many other harmful substances when it is utilised for a long time (Park & Yeo, 2013).

It has been stressed that so many years of damage to the human cells, tissues and organs wear them out, kill them and finally lead to the death of an individual (Singh, 2009). Also, it is indicated that with age, the body loses its ability to repair damage caused by diet, environmental toxins, bacteria or a virus and this explains why many elderly people die from diseases that they could have resisted when they were younger (Hossain, 2014).

Nevertheless, if human body system were wearing out with age, then it would be expected that exercises that individuals undertake would have shortened their life span but the opposite is true for individuals (Mitteldorf, 2014). Besides, if this theory were true, the life expectancy of human beings would be regulated to a great extent by the metabolic rate at which their body cells function (Troy, 1968).

Activity Theory of Ageing

The activity theory is described as the oldest theory and the basis of social gerontology (John, 1984). According to Nilsson, Bülow and Kazemi (2015), the activity theory was developed by Havighurst and Albrecht in 1953 to project the benefits individuals derive by engaging in activities during old age. The theory focuses on personal adjustment to the ageing processes and emphasises that role loss serves as a stimulus for making these adjustments (John, 1984). Though role losses will occur as a result of ageing, these roles should be replaced with new and different roles, interests or people (Wadensten, 2006). Participation in activities appears to promote physical and psychological wellbeing among elderly people (Jenkins, Pienta & Horgas, 2002). That is why the WHO (2002b) supports and promotes elderly people to continue participating in social, economic, cultural, spiritual and civic affairs of the society.

The theory argues that engaging in socioeconomic activities in old age could help the elderly insulate themselves from shocks of situations including retirement, illness and loss of loved ones through death (Katz, 2000; Menec, 2003). The theory argues that when individuals involve themselves more in socio-economic activities, then the tendency for them to become more satisfied with life is higher (Hossain, 2014). Most of these activities are informal, like child care and backyard gardening, hence, do not put pressure on the elderly (Menec, 2003).

Even after retirement from formal work, part-time work will enable the elderly people to remain active in the labour force while pursuing leisure activities (Kinsella & Phillips, 2005). When an older person remains active, he/she stays young and alive and does not withdraw from society because of an age parameter (Lueckenotte, 2000).

The theory advocates against sedentary lifestyle which could cause ill health (Havighurst & Albrecht, 1953). It has been indicated that physical and intellectual activities could generate better health outcomes (Lueckenotte, 2000; Jenkins *et al*., 2002). Therefore, socio-economic activities are major contributory factors to successful and meaningful ageing because these activities reflect the perceptions of individuals in the roles that they play (Hossain, 2014). These roles might not be limited to middle age roles, as in the case of continuity theory but opened to any activity which could bring satisfaction to the aged (Wadensten, 2006). Activity is necessary to maintain a person's satisfaction in life and a positive self-concept (Lueckenotte, 2000).

One of the limitations of the activity theory is that, older people who try to maintain the activities of their middle ages have the greatest tendency of failure because they may be unable to sustain the pace they did when they were younger (LaBauve & Robinson, 1999). Also, the theory does not consider the fact that ageing is associated with disability which might impede the activity of an individual during old age (Murphy *et al*., 2007). Further, the emergence of the continuity theory has refuted the activity theory as being universal, adequate and a mutually exclusive theory of ageing (John, 1984).

Disengagement Theory of Ageing

The disengagement theory which was developed in the early 1960s contends that there is a gradual behavioural and psychological withdrawal by older individuals from the various activities which they had engaged in during their middle ages (Cutler, 1977; Kinsella & Phillips, 2005). As proposed by Cumming and Henry, the theory argues that this withdrawal is not only on the side of older individuals but rather a mutual withdrawal between them and the society (Cumming, Dean, Newell & McCaffrey, 1960; Cutler, 1977; McGuire & Norman, 2005). For instance, mandatory retirement systems are put in place in various countries within formal sectors to disengage the elderly from their occupational roles (Choi, 1996).

It is evident in Ghana that, the mandatory retirement for formal sector employees is 60 years (SSNIT, 2009). These retirement systems apparently show that the society and the individual prepare in advance for the gradual and mutually satisfying process of social disengagement prior to death (Hochschild, 1975; Wadensten, 2006). This disengagement process paves way for the older person to die more peacefully, without the distractions that come with a more socially involved life (Wadensten, 2006; Nilsson *et al*., 2015). The gradual shift of the older person from being socio-economically active to inactivity is permanent in the ageing process with death as the ultimate (Cumming & Henry, 1961; McGuire & Norman, 2005). It has been argued that the elderly experience a double withdrawal from the society; thus, withdrawals from social roles and with time the departure from the entire society as a result of death (Hochschild, 1975; Wadensten, 2006).

The theory suggests that as individuals grow old, their rate of interaction and variety of interaction within the social structure decreases because they receive less enforcement to conform to societal values (Cumming *et al*., 1960). Also, the process of urbanisation, combined with education and a redefinition of the labour force silently pushes the elderly aside (Weeks, 1999). The theory indicates that individuals disengage from the society by reducing the number of roles they play and weakening the intensity of those that remain while the society provides them with a sound environment to relinquish their roles (Cumming & Henry, 1961; Hochschild, 1975). This could possibly be due to the onset of degenerative diseases associated with old age (WHO, 2014a). Therefore, the process of disengagement is satisfying both for the individual and for society (Wadensten, 2006).

According to Murphy *et al*. (2007), this theory has two limitations: first, it fails to deal directly with the social forces that impact on individual ageing; and second, it place emphasises on normal ageing that is, ageing without disability. Also, it reduces rather than improving the QOL of individuals because a discontinuity in social and economic roles of the elderly will make them isolated and depressed (LaBauve & Robinson, 1999). Besides, the theory is deflated in the sense that some politicians remain socially and politically active with high morale in old age rather than being withdrawn from societal activities (Cutler, 1977). In addition, the generalisation that older adults prefer to withdraw from the society is not readily accepted by the older population in all societies (Lueckenotte, 2000).

Continuity Theory of Ageing

The continuity theory, as pioneered by Atchley in 1989 postulates that individuals try to preserve and maintain their middle age activities as they grow old (Putnam, 2002). This theory argues that people who grow older achieve a higher level of satisfaction when they continue with their middle age habits, personalities, beliefs, preferences, and life styles (Atchley, 1989; Hossain, 2014). This theory views activities during old age as a continuation of the earlier part of life and the continual involvement of the elderly in similar activities will bring happiness (Lueckenotte, 2000; Minhat, Rahmah & Khadijah, 2013). For instance, in formal activities where retirement is due, similar informal activities must be found for the individual to continue to lead a satisfactory older life (Hossain, 2014). Part-time work could be a way of ensuring continuity of middle-age activities during old age (Kinsella & Phillips, 2005). Also, participating in activities one enjoys doing at leisure times could be helpful. For the elderly, such could mean a continuation of previous activities performed (Minhat *et al.*, 2013).

Unlike the disengagement theory, old age is not viewed as a terminal stage of life separated from the rest of life but a continuation of the life cycle (Lueckenotte, 2000; Wadensten, 2006). In this sense, the theory posits that elderly people who were highly engaged in the society in their middle ages may continue to be highly engaged while those who have had less social activities would equally have fewer activities in old age (Cutler, 1977). Basically, the theory assumes that as individuals strive to achieve their goals and cope with ageing, their past experiences, decisions and behaviours will form the foundation for their present behaviour (Wadensten, 2006). The continuity theory is relevant to social gerontology since it provides evidence to reject both disengagement and activity theories as adequate and mutually exclusive theories of ageing (John, 1984). This confirms the argument that theories exist to challenge current practices, create new approaches to practices and remodel the structure of rules and principles (Wadensten, 2006).

A number of criticisms are mounted against the continuity theory (Marshall, 2006). First, the theory is silent on pathological elements of ageing, hence, neglects the older people who are battling with chronic illness (Quadagno, 1999; Quadagno, 2007; Hossain, 2014). Second, the continuity or replacement of certain unhealthy middle age activities such as armed robbery and prostitution in old age might not be possible (Minhat *et al*., 2013). Third, it is gender bias because much of the literature on continuity theory in defining normal ageing is male domineering (Quadagno, 1999; Quadagno, 2007).

Exchange Theory of Ageing

The exchange theory of ageing developed by Homans (1950) proposes that people who share the same sentiments have the tendency to relate well within the society. The theory attempts to explain exchange behaviour between younger generations and older generations as a result of the shift in roles, skills, and resources that accompany advancing age (Putney, Alley & Bengtson, 2005).

Therefore, the accumulation of resources allows one to be a powerful exchange partner particularly during old age (Dowd, 1975; John, 1984).

In typical African societies, elderly people exchange their resources in the form of land, knowledge, and wisdom while adult children and grandchildren bring on board their support in the form of instrumental activities of daily living including meal preparation, housekeeping and shopping (Caldwell, 1976; Crampton, 2009). Besides, adult children do not only work in the household but also on the farm by caring for animals and weeding the crops in order to ensure that food is made available in the family (Caldwell, 1976). That is why the provision of assistance to older people by their adult children is critical to the QOL among many of them (Lee, Netzer & Coward, 1995).

One of the basic principles of this theory is that people bring resources to an exchange and that such exchanges are governed by norms of reciprocity, thus, an obligation to repay the receipt of valued assets, services or sentiments (Putney *et al*., 2005). Also, individuals continue to be in an exchange relationship as long as they benefit from the relationship (Lawton, Silverstein & Bengtson, 1994). However, individuals who benefit in an exchange relationship and have little in return are dependent on their partners for these benefits and in effect have no power in the relationship (Dwyer, Lee & Jankowski, 1994).

Bengtson and Roberts (1991) have identified objective and subjective aspects of exchange of resources between individuals. Bengtson and Roberts suggest that the objective exchange component shows the quantity and worth of material things shared between people. However, the subjective aspect concerns the non-material resources such as love, affection and companionship shared between individuals (Bengtson & Roberts, 1991). The principles of the exchange theory impact negatively on the aged with disability since they do not have much in return upon their dependence on family members for assistance such as washing, bathing and financial management (Dwyer *et al*., 1994). For instance, it has been argued that intergenerational exchange, particularly insufficient assistance provided to parents by children, may be responsible for parental depression at old age (Lee *et al*., 1995).

In summary, John (1984) identifies four cardinal ways in which individuals try to maximise their resources in an exchange relationship: Individuals withdraw from exchange relations that are too costly; they expand their resources by widening their network; they limit exposure of their experience so that they will continue to be useful; and they promote group solidarity so as to benefit from others in times of challenges.

This theory is criticised on the basis that its principles work appropriately only for capitalist societies that are in the process of thorough rationalisation and for that matter does not fit in socialist societies (Dowd, 1975; John, 1984). It also fails in its rational choice and behavioural varieties to recognise the distinctive social character of exchanges that are not fully reducible to their particular economic and psychological dimensions (Zafirovski, 2005).

Modernisation Theory of Ageing

The modernisation theory was propounded by Cowgill and Holmes in 1972 to postulate that modern societies have less use of older persons than that in the pre-modern societies (Hossain, 2014). That is, in pre-modern societies, older people commanded respect through their control of resources, knowledge, and counselling roles (Cowgill & Holmes, 1972; Crampton, 2009). However, the theory suggests that in modern societies the status and role of the elderly seem dysfunctional as technological progress takes place (Cowgill & Holmes, 1972; Hossain, 2014). For instance, industrialisation has caused a separation of work from home to other particular geographical areas and as a result weakened family ties (Kamo & Zhou, 1994; Weeks, 1999). Also, modern education has led to changes in values and intellectual development across generations and the younger generation no longer turn to the elderly for advice as they grow into responsible members of the society (Kamo & Zhou, 1994; Crampton, 2009).

Four major factors including improvement in health technology, economic technology, formal education and urbanisation have been identified as the drivers of modernisation (Kamo & Zhou, 1994; Choi, 1996). Urbanisation in particular has made the extended family lose grip of its members because the younger generation has come to place greater emphasis on self-fulfilment as individuals, rather than on their responsibilities toward their kin (Kamo & Zhou, 1994). In a growing economy where individuals obtain higher levels of knowledge and specialisation, they are normally compelled to move away from their families of orientation to other areas where their knowledge and skills are most needed (Silverstein, Burholt, Wenger & Bengtson, 1998; Weeks, 1999). This underscores the reason why modernisation makes the extended family system less attractive but rather promotes nuclear family living arrangements (Kamo & Zhou, 1994;

Weeks, 1999). Basically, the modernisation theory argues that the total transformation of societies from a relatively rural way of life toward a predominantly urban way of life contributes significantly to the diminishing status of older people in the society (Cowgill & Holmes, 1972; Choi, 1996).

The validity of the claims of the modernisation theory has been dented in a number of ways (Global Health Action, 2014). The processes of modernisation push elderly people who could have continued working out of formal sector employment due to mandatory retirement systems put in place across various countries (Choi, 1996). Also, the modernisation theory is silent on the increasing level of poverty of the aged with disability which is one of the consequences of the modernisation processes (Matunhu, 2011).

Political Economy Theory of Ageing

The political economy theory of ageing as developed through Marxian capitalist ideology views aged people as a burden to the economy (Estes, Swan & Gerard, 1982; Biggs & Powell, 1999). This theory emphasises the social construction of age and examines the influences of social structures and processes on public policy for older people (Townsend, 1981). In this sense, political power relations matter in developing shared understandings of ageing and old age, and in establishing rights, responsibilities and obligations of the aged within society (Murphy *et al*., 2007). The political economy theory of ageing explains how the interaction of economic and political forces determine the unequal allocation of resources, thereby shaping the experience of ageing that result in older persons' loss of power, autonomy, and influence (Putney *et al*., 2005). This theory sees the primary determinant of poor health outcomes of the aged with disability as a socially and politically mediated exclusion from material resources (Szreter & Woolcock, 2004). It has been stressed that political power differentials translate into structural influences that determine resource allocation and public policy for older people, thereby affecting how ageing is interpreted and experienced by individuals (Murphy *et al*., 2007).

The political economy theory, just like any other theory is bedevilled with some challenges. For one, this theory does not address crucial issues regarding the attitudes and structure of good nursing care for the aged with disability in either formal, informal or quasi-formal levels (Wadensten, 2006). Also, it has failed to recognise and project the rich experiences accumulated by the aged for socio-economic development but rather considers them as a burden on the economy (Biggs & Powell, 1999; Kumari, 2001).

The Concept and Models of Disability

The concept of disability is complex, dynamic and multidimensional, hence, has no single definition (HelpAge International, 2004; WHO, 2011). Some of the domains of disability are seeing, hearing, mobility, cognition, self-care and communication (WHO, 2011). Disability, in one way, refers to an individual's inability to do certain things as a result of having impairment thus the total loss or partial loss of a physical function including seeing, hearing, talking and moving (HelpAge International, 2004; WHO, 2014b). In another vein, it is defined as a limitation in performing tasks, activities, and roles at expected levels in physical and social contexts (Mann, 2004).

The WHO (2004a) asserts that disability is any impairment which makes a person unable to perform an activity in the manner considered to be normal for a human being. Disability is considered as a state of having difficulty in performing certain functional tasks including seeing, hearing, eating and dressing (Saleeby, 2007). Similarly, the Ghana Statistical Service (2012) asserts that disability is a condition where an individual is unable to perform specific activities due to loss of function of some part of the body as a result of impairment or malformation. Individuals who fall into this category include those with visual/sight impairment, hearing impairment, mental retardation and behavioural disorders (WHO, 2011; Ghana Statistical Service, 2012).

The European Commission, Directorate-General for Employment and Social Affairs (2002) considers disability to be in two folds: one is the lack of work capacity or earning capacity of an individual; and two is the limitations in relation to activities such as eating, moving and personal hygiene. In this case, a disabled person can then be described as an individual who cannot take care of himself/herself either wholly or partly, in providing for the necessities of a normal individual as a result of deficiency, in his or her physical or mental capabilities (United Nations, 1949; United Nations, 1975). Further, disability is the outcome of complex interactions between the functional limitations arising from a person’s physical, intellectual, or mental condition and the social and physical environments (Department for International Development [DFID], 2000).

In this study, visual disability is a limitation in the performance of an individual’s sight due to loss of function of the eye (s) as a result of impairment or malformation (Ghana Statistical Service, 2012). On the other hand, physical disability is a limitation in the performance of an individual's motor skills due to loss of function of either/or the neck, hand, arm, waist, leg and knee as a result of impairment or malformation (Castañer, Torrents, Anguera, Dinušová & Jonsson, 2009; Ghana Statistical Service, 2012). The motor skills of an individual involves skills needed in performing actions that involve movements of his or her arms, legs, feet, or the entire body (Castañer *et al*., 2009).

Mitra, Posarac and Vick (2011) have identified three measures of disability: impairment, functional limitation and activity limitation measures. Mitra *et al*. explain that impairment as a measure of disability focuses on the presence of impairment intrinsic to the individual including blindness, deafness and mental retardation. The functional limitations as a measure focuses on limitations of an individual's particular bodily functions such as seeing, walking, and hearing irrespective of whether the individual has an impairment or not (Mitra *et al*., 2011). Activity limitations measures focus on limitations in activities of daily living including bathing, washing, cooking and dressing (Mitra *et al*., 2011).

As indicated earlier, because there is no consensus on what constitutes disability; many models of disability have emerged in an attempt to explain the concept (Mitra, 2006). These models include: the medical model, social model, economic model, human rights model, capability approach, and the international classification of functioning, disability and health (Albert, 2004; Mitra, 2006; Sullivan, 2011).

Medical Model of Disability

The medical model which traces its roots to the rise of the medical profession in the late 19th and early 20th century conceives disability as an individual problem (Midgley & Michelle, 2009; Sullivan, 2011). The medical model views disability as a problem that is directly caused by diseases, trauma, accidents or other health conditions and this ill condition requires professional medical care (Rowlingson & Berthoud, 1996; WHO, 2001). It has been stressed that disability is a personal tragedy borne by the victim (Waddell & Aylward, 2010).

The medical model is skewed to the individual by regarding the difficulties that an individual with impairments experiences as being caused by the way in which his/her body is shaped and experienced (Rowlingson & Berthoud, 1996; Carson, 2009). For instance, if a person is visually impaired, he or she would find it difficult to properly see (Carson, 2009). In this case, the model describes people with disabilities to be weak and defective; needy and dependent; and generally incapable of getting good jobs and living on their own (Midgley & Michelle, 2009; Sullivan, 2011).

The WHO (1980) in line with the medical model perceives the concept of handicap as a disadvantage for a given individual, resulting from an impairment that prevents the fulfilment of a role that is normal depending on age, sex, social and cultural factors for that individual. The WHO in this same vein describes impairment as any loss or abnormality of psychological, physiological or anatomical structure or function of an individual. The medical model suggests that the desired solution to disability challenges or impairments is often a medical cure or rehabilitation of the individual in order to fix the impairment so that he or she can attain some level of normalcy (Rowlingson & Berthoud, 1996; Midgley & Michelle, 2009; Waddell & Aylward, 2010; Sullivan, 2011). For instance, specific medical advances including cataract surgery, antidepressant medication and hip replacements have been most important in preventing and curing the functional limitations associated with impairments among individuals (Cutler, Wise & Woodbury, 2009).

The medical model is challenged in a number of ways. It has been argued that the model, aside focusing on diagnosis of diseases and treatment of individuals sometimes leads to management challenges and the neglect of the disabled person (Waddell & Aylward, 2010). Also, because this model has maintained its original values of care for physical diseases, it has little attention on the psychological and socio-cultural factors associated with the treatment of mental illness (Kiesler 1999; Waddell & Aylward, 2010).

Again, it has failed to realise what the individual can do irrespective of the diagnosis of disability that is why the social model of disability emerged and takes functioning into consideration and consequently, the provision of service needs (Bricout, Porterfield, Tracey & Howard, 2004). Further, it is discriminatory because the needs of people with disability have been marginalised by being categorised as special or different from those of the larger population (DFID, 2000).

Social Model of Disability

The social model of disability is contrary to the medical model (Gilliard, Means, Beattie & Daker-White, 2005). The existence of this model does not invalidate the medical model of disability but rather shows its weaknesses (Shakespeare & Watson, 2002). It has been stressed that the social model critique of the medical model of disability is, at least in part, not rejecting medical interventions (Albert, 2004). The social model sees disability mainly as a socially created problem and does not limit it only to the individual who has impairments and physical limitations (WHO, 2001; Mitra, 2006; Murphy *et al*., 2007). This model in its broader context proposes that disability resides in the social, physical, economic and political environments within which people live (Murphy *et al*., 2007).

The capability approach strongly supports this argument by emphasising that there is the need for the society to move beyond the individual body level to understanding the influence of the environment on individual functioning and disability; and the dynamic interaction of the individual with his/her environment (Saleeby, 2007). For instance, much of disabilities among individuals are created by the society through motor accidents, inter-ethnic wars, civil wars, and terrorism which cause disabilities not only through direct injuries but also through the spread of diseases (Wendell, 1996).

Besides, because disability is a social construct, disabled people are subjected to oppressive treatments including discrimination and segregation through attitudinal, physical, political and economic barriers (Mitra, 2006). The social environment determines the extent to which impairment results in incapacity from mainstream social processes, rather than merely the impairment itself (Schriner & Scotch, 2001). For instance, poor architectural planning creates physical obstacles for people who use wheelchairs, those who cannot climb stairs and for other people who cannot open doors and all these in effect exclude them from participating in major aspects of life in their societies (Wendell, 1996). It is disturbing to note that, disabled people are disadvantaged by society's failure to accommodate everyone's abilities (Rowlingson & Berthoud, 1996; Waddell & Aylward, 2010). The social environment has enforced the social isolation and dependency of people with disabilities, substantially limiting their participation (Schriner & Scotch, 2001). As a result they are found in a web of unemployment, poverty, inadequate personal and medical care, and many other disabling situations that hurt them (Wendell, 1996).

Since the problem of disability emanates from the society itself, then, what is needed is to change the society but not the individual (Gilliard *et al*., 2005; Yeo, 2005). More importantly, if society were constructed in a more egalitarian, inclusive manner, then discrimination of disabled people could be addressed (Albert, 2004; Yeo, 2005). That is why it has been argued that it is better to pursue a strategy of social change instead of the society pursuing a strategy of medical cure or rehabilitation for people with disability (Shakespeare & Watson, 2002). It is important to note that managing disability requires social restructuring and it is the collective responsibility of society at large (Rowlingson & Berthoud, 1996; Waddell & Aylward, 2010).

Cutler *et al*. (2009) suggest that the society could effectively reduce disabilities among individuals by preventing adverse health conditions and events before they develop. Cutler *et al*. further indicate that these preventive strategies could be done in a number of ways. It coud be by early diagnosis and management of the symptoms of a health condition, and by use of effective assistive devices (Cutler *et al*., 2009). In this same bid, disability rights activists have advocated and reshaped the way people view disability as a condition which is without hope and beyond help to a state of hopefulness by encouraging people to see disability as everyone's responsibility (Gilliard *et al*., 2005). Besides, some disabled people do not see themselves as disabled, hence demystify the significance of their impairments and even seek access to a mainstream identity (Shakespeare & Watson, 2002).

The social model lends itself to much more positive and humanistic portrayals of people with disability (Sullivan, 2011). It provides the framework for exploring the experiences of ageing with disability within the person-environment relationship from broader contextual standpoints, allowing for a rich assessment of age-related issues including QOL (Putnam, 2002). The social model has also provided a powerful fabric for bringing disabled people together in a common struggle for equality and rights (Albert, 2004).

One of the weaknesses of the social model of disability is that it permits the consideration of social class, ethnic and cultural-based biases and discrimination which are detrimental to the disabled person (Bricout *et al*., 2004). Also, it downplays the reality of what impairment means for disabled people and takes disability as an ordinary part of life (Albert, 2004). Again, the model fails to consider the degree of extreme poverty in which most disabled people in the developing world live (Rowlingson & Berthoud, 1996; Albert, 2004; Waddell & Aylward, 2010).

Economic Model of Disability

The economic model of disability suggests that population ageing brings about the demand for special goods and services by the aged with physical limitations (Jongbloed, 2003; Travability, 2011). It has been noticed that disability generally leads to greater medical and care giving expenses, and in some cases, these expenses are unbearable (Cutler *et al.*, 2009). The aged with disability are seen either as past contributors to the economic system and thus deserving assistance or as outside the economic system and so deserving only charity (Jongbloed, 2003). Notwithstanding all these, the real issue is for the society to compensate the aged by providing facilities and services that they need (Travability, 2011).

The principles of the economic model are geared towards the distribution and reduction of the costs associated with limited productivity by the aged with disability (Jongbloed, 2003). In doing so, social assistance legislations in many societies reflect a response to medical and economic needs by providing minimal financial support to those unable to work (Jongbloed, 2003; Wiseman & Yčas, 2008). In this regard, disability becomes a commodity and a source of income for business people, doctors, rehabilitation professionals, and disability activists (Oliver, 1998). This is because the strategies of the business industry changes, making the industry aware of the market size and the specific products to produce regarding the desires and needs of people with disability (Travability, 2011).

Schultz (1969) suggests that the family structure and the government have economic responsibilities at the institutional levels in caring for the aged. The combination of loss of earnings and increased expenses can impose a very significant financial burden, not only on individuals, who become disabled, but their families and society at large (Cutler *et al*., 2009). It has been established that people with disabilities and households that have people with disabilities experience worse social and economic outcomes compared with persons without disabilities (WHO, 2011). In part, on the structure of the family, income and wealth are transferred between generations; from active workers to inactive workers and as such, the extended family tends to shelter both the aged and the young (Schultz, 1969). The government, on the other hand, institute support programmes for the aged by providing insurance programmes for disability, medical care, and retirement (Schultz, 1969). In Ghana for instance, the government through the NHIS exempts the elderly who are aged 70 years and older from paying their premium (Durairaj, D'Almeida & Kirigia, 2010).

The economic model of disability is flawed by its generalisation that the aged with disability are an economic burden to the society (Cutler *et al*., 2009). The argument here is that, some of the aged contribute significantly in caring for children therefore allowing family members to contribute to productivity (Brown, 1992). Also, the aged indirectly contribute to the economy by creating market for manufacturers who are producing assistive devices such as walking frames, wheelchairs, hearing aids and knee braces (Mann, 2004; Bateni & Maki, 2005). Again, the model violates the United Nations principles for older people's rights of independence, respect, self-fulfilment and dignity (United Nations, 1991).

Human Rights Model of Disability

According to Rioux and Carbert (2003), the human rights model of disability emanates from the human rights movements that have developed over the latter half of the 20th century. These human rights movements brought about many international conventions on the rights of older people (United Nations, 2010). The United Nations principles for older persons for instance, sets out older people's rights to include; independence, participation, care, self-fulfilment and dignity (United Nations, 1991).

Also, the Madrid International Plan of Action on ageing in 2002 called for the promotion and full participation of older people with disabilities in developmental projects (HelpAge International, 2004; United Nations, 2010). Again, the resolution on the rights of the disabled people and older people in Africa, Caribbean and Pacific (ACP) countries in 2001 urged governments in ACP countries to promote and protect the basic human rights and freedoms of disabled and older people (HelpAge International, 2004).

Hence, disability rights approach is the outcome of complex social negotiations concerning the changing definitions of impairment, disability and notions about the rights and responsibilities of individuals and groups (Fox & Wills, 1989; Jongbloed, 2003). The human rights model of disability perceives variation in human characteristics associated with disability, whether in cognitive, sensory, or motor ability, as inherent to the human condition (Rioux & Carbert, 2003). Disability rights activists have rejected the assumption that having a disability inevitably means that someone is unable to participate in everyday economic, political, or social life (Schriner & Scotch, 2001).

This model recognises that societal values change over time and they in turn shape policies which meet the current demands of the society (Jongbloed, 2003). In this direction, people with disabilities are provided with the needed services and aids to enable them attain social and economic integration, self-determination, and the enjoyment of legal and social rights (Rioux & Carbert, 2003).

Until recently, building construction standards did not allow for wheelchair access, and public programmes contained assumptions about minimum mobility needed for participation (Schriner & Scotch, 2001). Women who happen to be disabled have argued that the view that women are care givers in the society should be changed because women need much care too (Lloyd, 2001).

Capability Approach of Disability

The capability approach, introduced by Amartya Sen in the 1980s is one of the most important and influential theoretical frameworks that has contributed greatly to the assessment and understanding of human QOL (Nussbaum, 2000; Nussbaum, 2001; Robeyns, 2005; Vergunst *et al*., 2014). Sen’s capability approach is concerned with a person's actual ability to achieve various valuable ‘functionings’ as part of his or her living (Fukuda-Parr, 2003). ‘Functionings’ are the ‘beings and doings’, of the individual (Sharma, 2005; Saleeby, 2007). The ‘beings’ indicate the state of an individual as to whether he/she is being physically challenged or not physically challenged; having enough food to eat or having no food to eat; being literate or illiterate; and being happy or unhappy (Charusheela, 2008; Robeyns, 2011).

The ‘doings’ involve physical activities of the individual including travelling, caring for a child, sweeping, washing, dressing and cooking (Nussbaum, 1998; Robeyns, 2011). In one view, ‘functionings’ represent the various activities that disabled individuals do or manage to do as part of their life (Saleeby, 2007). In another view, ‘functionings’ reflect the health status of disabled individuals and what they are effectively able to do in regard to their capabilities (Robeyns, 2005). Further, ‘functionings’ are the various activities individuals perform in everyday life to achieve their objectives in life (Sharma, 2005). Some ‘functionings’ such as access to food, shelter and clothing are basic while others may be more complex, but still widely valued such as achieving self respect or being socially integrated (Sen, 2005; Robeyns, 2011).

The capability approach is based on the position that life is a combination of various ‘doings and beings’, with QOL of an individual to be assessed in terms of the pursuance of the value associated with available resources in life (Nussbaum, 2011; Robeyns, 2011). Capability involves the alternative combinations of material and nonmaterial things from which the individual can choose one combination and with this, the person is free to make use of the opportunity or not (Sen, 2005; Sharma, 2005). Capability is also viewed as the things a person can achieve or could have achieved in life based on real opportunities (Sharma, 2005).

The capability approach emphasises the need to assess what individuals are able to do in their real-life environments rather than capacity or functional status (Saleeby, 2007). The capability of an individual is reflected in the individual’s social arrangements and well-being (Robeyns, 2005). The social arrangements are the political, educational, economic and religious institutions which can influence the individual’s lifestyle (Nussbaum, 1998). The individual’s well-being concerns the advancement of his or her own personal objectives in life (Nussbaum, 2000; Nussbaum, 2001). In this context, an individual concentrates on his or her own welfare and freedom to enjoy the various possible opportunities within the society (Robeyns, 2005; Robeyns, 2011).

Therefore, the freedom to lead different lifestyles is reflected in the individual’s personal characteristics (Nussbaum, 2011; Robeyns, 2011). The freedom to have any particular thing can be substantially distinguished from actually having that thing (Sen, 2005). The capability approach emphasises the importance of determining what an individual succeeds in doing with the resources available to him or her (Saleeby, 2007). The capability approach is useful in studying several aspects of people’s QOL such as inequality, poverty, and the well-being (Nussbaum, 2000; Nussbaum, 2001; Robeyns, 2005). Also it is used as an evaluative framework within which policy makers design and evaluate policies in developed and developing countries and among non-governmental organisations (Sen, 1980; Robeyns, 2005). Besides, it helps to explain the importance of the economic causes and consequences of disability (Mitra, 2006). Further, the capability approach provides a rich avenue for understanding what obligations countries owe their citizens in ensuring that their QOL is achieved (Stein & Stein, 2007).

However, the capability approach fails to consider individuals as part of their social environment and in that case it is being too individualistic (Robeyns, 2005). Meanwhile, the society might create a restrictive environment that will not allow individuals to function in accordance to their capabilities (Nussbaum, 2011). Also this approach remains largely silent on the issue of capitalism which strains individuals' perceptions and experience of work (Dean, 2009). Besides, capabilities of individuals may not be universally valued due to cultural and other differences (Cobb, 2000).

Concept of Social Exclusion

Peace (2001) argues that social exclusion is a contested term and is used to refer to a wide range of phenomena and processes related to poverty, deprivation and hardship. Beall and Piron (2005) describe social exclusion from two lenses, as a condition and as a dynamic process. Beall and Piron explain that as a condition, social exclusion is a state in which individuals or groups of individuals are unable to participate fully in their society. As a dynamic process, social exclusion refers to the social relations and organisational barriers that block the attainment of livelihoods, human development and equal citizenship of individuals (Beall & Piron, 2005). Dorsner (2004) contends that if participation is understood as inclusion at different stages in the development process, then exclusion relates to the mechanisms through which participation is hampered. For instance, in some cases employers may require a person to be able to see, hear or walk before a job opportunity is offered (HelpAge International, 2004).

In another perspective, “Social exclusion refers to limited/inequitable opportunities and capabilities to participate in decision making, gain access to meaningful livelihood opportunities and social services due to discriminatory institutional practices in the political, economic and social spheres based on gender, ethnicity, geographical location, age, income status, health status, educational attainment, and disability”. (United Nations Development Programme, 2007. p.12). For example, transport and buildings that have staircases may be inaccessible to people who have difficulty walking, or those who use wheelchair (HelpAge International, 2004).

Mikkonen and Raphael (2010) have identified four aspects of social exclusion. The first is denial of participation by individuals in civil affairs due to legal sanctions and other institutional mechanisms. The second is individuals’ denial of social goods such as health care, education, housing and income security. Third is cultural exclusion of individuals from the opportunity to participate and contribute to social and cultural activities. The fourth is economic exclusion of individuals from economic resources and opportunities like participating in paid work. In addition, there is physical exclusion of people with disability where certain barriers limit their movement / transportation in accessing institutional structures (UNDP, 2007).

According to the UNDP (2007), exclusion occurs in varied forms including stigmatisation, marginalisation, lack of recognition, lack of access to services and opportunities, abandonment and neglect. It has been emphasised that an individual's inability to participate in, and be respected by mainstream society is a violation of his/her basic human rights (Appleton-Dyer & Field, 2014 & Islam, 2015). The principles of participation call for equal freedom for everyone to enjoy all aspects of citizenship (Islam, 2015). It is clearly noted that disability is a common source of social exclusion, especially visual and physical disabilities have been treated as reasons for isolation (United Nations Development Programme, 2007). The survival of persons with visual and physical disabilities is largely influenced by the compassion of those who have responsibility for them, rather than any commitment on the part of their care providers to their basic rights (United Nations Development Programme, 2007).

Activities of Daily Living and Instrumental Activities of Daily Living

Activities of daily living refer to basic self-care tasks of an individual such as eating, bathing, dressing, using the toilet and getting around inside the home (Wiener, Hanley, Clark & Nostrand, 1990; WHO, 2015). Activities of daily living are mostly activities directly concerned with caring for the body of an individual and require less use of energy (WHO, 2015). By contrast, instrumental activities of daily living are non-personal activities necessary for independent living and are considered more complex than the basic activities of daily living (Graf, 2008; WHO, 2015). Instrumental activities of daily living consist of tasks including transportation, telephone use, meal preparation, medication management, financial management, housekeeping, laundry, and shopping (Gold, 2012; WHO, 2015). Instrumental activities of daily living are more of indirect activities needed in caring for an individual’s body and require the use of more energy (WHO, 2015). When people with disability are unable to perform these activities, they would either need help from people or assistive devices or both depending upon the task at stake (Wiener *et al*., 1990; Kimbler, 2013). This assistance could come from either informal social support or from formal support services (Kimbler, 2013).

Generally, assessment of functional status of the elderly is critical for their QOL (Graf, 2008). The fact is that, knowing the activities of daily living / instrumental activities of daily living status of the aged with disability is a good predictor of a wide range of their health-related behaviour and needs (Wiener *et al*., 1990). For instance, as individuals grow old, issues including acute illness, worsening chronic illness, and hospitalisation normally occur and all these contribute to a decline in the ability of individuals to perform tasks necessary to live independently (Graf, 2008).

Social Care Models for the Elderly

Social care models are designed to explain the interaction between formal and informal support systems in the provision of care to the elderly (Nasvadi & Wister, 2006). The availability of both formal and informal care networks will probably enhance the QOL of the elderly and thereby enable them to live longer (Hlebec, Nagode & Hrast, 2014). Some of the social care models including the hierarchical compensatory model, the task specificity model, and the complementary model are discussed subsequently (Nasvadi & Wister, 2006).

Hierarchical Compensatory Model of Social Care

Cantor's (1979) hierarchical compensatory model of social care shows that social support systems for the elderly people are in a form of a hierarchy (Figure 1). The hierarchical compensatory model hypothesises that elderly people are more likely to look first to spouses, next to adult children, then to other relatives and friends, and finally to formal services for support (Cantor, 1979; Armi, Guilley & Lalived'Epinay, 2008).

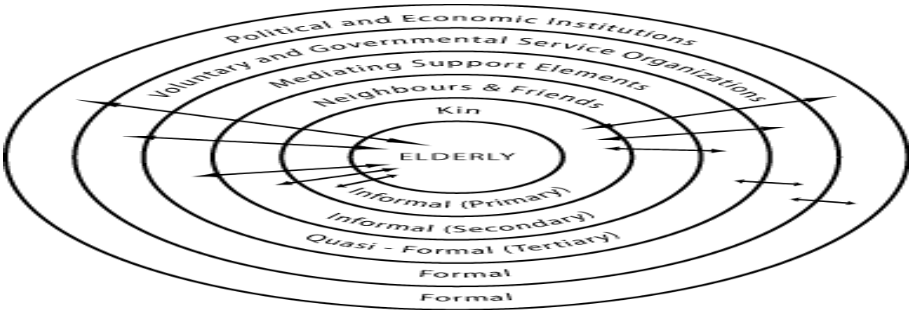

***Figure 1*: Hierarchical compensatory model of social care**

Source: Cantor (1979) cited in Asharaf (2007).

This theory contends that the primary demands of the elderly are provided by the kin who are family members, however, complex and other demands which cannot be catered for by the family are sought for subsequently from one level of support system to the next (Cantor, 1979; Nasvadi & Wister, 2006). It has been stressed that formal care would compensate for informal care only in the absence of an informal network (El-Bassel, Chen & Cooper, 1998; Hlebec *et al*., 2014). In this regard, elderly people seek social support from social networks based on a set of ordered preferences rather than the types of assistance required (Cantor, 1979; Li *et al*., 2014). In the family, the spouse is generally the first to provide assistance when older adults are in need of help with the activities of daily living and in the absence of a spouse; adult children then step in to perform those activities (Dykstra, 2007).

The assumptions in Cantor's (1979) hierarchical compensatory model of social care provide an extensive representation of the available care systems for the elderly in the Ghanaian society. The elderly are found within the nucleus of the various support systems ranging from informal to formal (Cantor, 1979; National Population Council, 2007). The immediate care system to the elderly in Ghana is the kin which consists of both patrilineal and matrilineal levels of family systems (Cantor, 1979; Brown, 1990). The extended family members by custom are obliged to provide support including food, clothing, activities of daily living and instrumental activities of daily living to the elderly (Brown, 1992; Assimeng, 1999). It has been strongly argued that family support has a strong effect on increasing older adults' QOL, and this effect is even stronger than it does for friends support (Li *et al*., 2014).

The second care system is neighbours and friends who are members of the community (Cantor, 1979). The support provided by neighbours and friends to the elderly in Ghana are similar to that of the kin, however, such neighbours and friends are not under any obligations to provide support (Cantor, 1979). Even though, members of the extended family, friends, and neighbours often step in when needed, instrumental support provided by these relationships has a fragile basis (Dykstra, 2007).

The third support system is mediating support institutions which are religious bodies that provide both spiritual and material needs of the elderly (Cantor, 1979). For example, the Centre of Hope in Accra which is operated by the church serves as a non-residential centre for the elderly where they meet weekly for prayer sessions and occasionally receive material support such as food and clothing (Steiner-Asiedu *et al*., 2010).

The fourth support system is voluntary and governmental agencies which provide support in the form of food, cash transfers and health needs (Cantor, 1979). For instance, HelpAge Ghana has established day-care centres in Accra to give old people a place to go for company, get a daily meal and also receive medical assistance when it is needed (National Population Council, 2007). Also, the government has established a Livelihood Empowerment Against Poverty (LEAP) programme which provides cash transfers to the vulnerable in Ghanaian society for which the elderly are no exception (Abebrese, 2011).

The last but not the least support system that encloses all the other systems is the political and economic policy framework which provides policies and legal grounding for the elderly (Cantor, 1979). In Ghana, the elderly, particularly those who worked in the formal sector, are entitled to full old age pension if they are at least 60 years (Boon, 2007). Also, previous policies and the current NHIS in Ghana exempt persons aged 70 years and older from paying premiums for their health insurance (National Population Council, 2007).

According to Murphy *et al*. (2007), social interaction of elderly people within these support systems is beneficial and has a positive influence on their QOL. For instance, the elderly who have good social network are often free from loneliness, which improves their QOL (Salvador & Pilar, 2013; Li *et al*., 2014).

Some criticisms have been levelled against this model. Its emphasis on the specific order of preference for support groups is being questioned by the task-specific model which holds that elderly people turn to certain groups for support depending on the tasks for which support is needed (Vanden, 1997; El-Bassel *et al*., 1998). Also, the model focuses on the association between support giving and certain social roles but failed to explain the independent effect of social roles on the flow of social support to the elderly (El-Bassel *et al*., 1998). Besides, the assumption that certain ties are more important than others among family and community members overlooks the variety of circumstances that shape an individual's relationship (Campbell, Connidis & Davies, 1999). Further, it is centred on the customary obligational roles of the family and fails to address the complexities in commitments that arise with divorce and the quality of care provided (Dykstra, 2007).

Task Specificity Model of Social Care

Hopp (1999) indicates that the roots of the tasks specificity perspective of social care could be traced to the scholarly work of Litwak in 1985. The task-specific model holds that people turn to certain groups for support depending on how well the features of those social groups match the characteristics of the tasks for which support is needed (El-Bassel *et al*., 1998). The model suggests that the sources of assistance for the elderly who need assistance depend on both the nature of the task and the availability of the support system (El-Bassel *et al*., 1998; Hopp, 1999). The support system most likely to avail itself to manage a particular task will have structural features that match those of that task (Messeri, Silverstein & Litwak, 1993; Campbell *et al*., 1999). This model contends that informal and formal resources are needed to accomplish different types of tasks (Litwak, 1985; Nasvadi & Wister, 2006). Informal support systems, particularly the family, are better suited for performing instrumental activities of daily living of the beneficiary (Hlebec *et al*., 2014). For instance, daily preparation of meals for a frail person is a task that requires family members with continuous proximity to perform that specific role (Messeri *et al*., 1993; Hopp, 1999).

However, among older persons living in boarding care settings, formal helpers will be most likely to assist in their daily activities of living including bathing, toileting, and getting in and out of bed (Hopp, 1999). This suggests that in a situation where the services required are of a higher level of technical knowledge, like aid on life supporting machines, formal organisations are more likely to provide such services (Hlebec *et al*., 2014). In Australia for example, residential care is provided at an aged care facility for the aged whom community care is not feasible or access to informal care is limited (Access Economics, 2010). It is argued that strict task division is therefore not expected because for some tasks of activities of daily living, informal care is predominant while for other tasks, formal care is most frequently used (Hlebec *et al*., 2014).

The task specificity model has some weaknesses. The model does not address how social factors such as gender, religion and education may influence the elderly persons' decision to access and use formal long-term care services (Campbell *et al*., 1999). It also fails to indicate explicitly the quality of services provided by either formal or informal institutions to the aged (Dykstra, 2007). Again, the model goes wrong by not examining the independent effect of social roles on the flow of social support while controlling for the effect of relational properties and network structures (El-Bassel *et al*., 1998).

Complementary Model of Social Care

The complementary model suggests that informal and formal care complement each other aiming at providing the elderly with the maximum needed support (Armi *et al*., 2008). Unlike the hierarchical compensation and task-specific models, there is more evidence for informal and formal supports being complementary (Nasvadi & Wister, 2006). It has been argued that as formal services are provided, there will be a subsequent decrease in informal care (Ward-Griffin & Marshall, 2003).

Though informal networks respond to increasing incapacity of the aged, there is a point beyond which the needs of the older adult exceed the resources of the network and hence requires formal services (Dykstra, 2007; Armi *et al*., 2008). Australia, for instance, has a home and community care programme which provides services including transportation, nursing, home maintenance, counselling and personal care in complementing informal care for the aged (Access Economics, 2010). One of the limitations of this model is that the complementarities of formal and informal care systems are less compatible than is often assumed because resources and authorities differ within these systems (Ward-Griffin & Marshall, 2003).

Social Capital for the Aged

The definition of social capital is at a moot point (Kawachi & Berkman, 2000; Cannuscio *et al*., 2003). Bourdieu (1986) defines social capital as the benefits individuals derive from their social connections and mutual acquaintances. It is also viewed as the material and non-material resources available to individuals and groups through their social connections to their communities (Kawachi & Berkman, 2000; Cannuscio, Block & Kawachi, 2003). Again, social capital is seen as all those characteristics of the social structure that might facilitate positive actions of individuals within the social structure itself (Coleman, 1988; Rocco & Suhrcke, 2012).

Although there is no single definition of social capital, most definitions emphasise its characteristic as a collective good (Kawachi & Berkman, 2000; Cannuscio *et al*., 2003). That is why, basically, social capital is associated with two features: first, the social relationship itself that allows individuals to claim access to resources possessed by their associates; and second, the amount and quality of those resources (Bourdieu, 1986; Portes, 1998).

Individuals derive several benefits from social capital. Rocco and Suhrcke (2012) have identified three ways in which individuals enjoy the fruits of social capital in relation to their health. First, individuals get information on how to prevent diseases and what the best remedies are. Second, individuals secure financial support to cover occasional out-of pocket expenditures on their health care. Third, individuals get free means of transport to health facilities. All of these are necessary for QOL of the aged with disability (Kerce, 1992). Portes (1998) argues that for an individual to possess social capital, he must be related to other people, and it is those other people, not he, who are the actual sources of his advantage. In this context, social capital could be viewed from two perspectives in relation to care for the aged living with disability, thus, social network component and social support component (Bourdieu, 1985; Cannuscio *et al*., 2003).

The social network of a person includes his family members, friends, work associates and neighbours (WHO, 2002b). Cantor (1979) identifies three network systems of the elderly; informal, quasi-formal and formal. According to Cantor (1979), the informal network system consists of the immediate family and the community at large. For example, a typical Ghanaian family stretches in two wings; both patrilineal and matrilineal and consists of grandparents, brothers and sisters and their children, and grandchildren (Brown, 1990; Banga, 1993). The quasi-formal network system comprises religious bodies and non-governmental organisations while the formal network system concerns governmental institutions (Cantor, 1979).

Social networks directly or indirectly provide social support to the aged living with disability (Cantor, 1979). Instrumental support including preparation of meals, driving, using public transportation and shopping are the most concrete direct form of social support provided by the family to the elderly (House, 1981). Also, functional social supports such as cooking, sweeping, communication of helpful information and guidance are also provided by the family to the elderly (Moreno, 2004). Customary responsibilities in the Ghanaian family system urge family members to provide food, clothing, errand services and emotional support for the aged (Brown, 1992; Assimeng, 1999).

There is a phenomenon of reciprocity in the Ghanaian family system in the sense that adult family members care for younger members and the aged while the aged in turn advise the adults and socialise children (Boon, 2007). Even though modernisation has brought about formal systems of elderly care, the extended family system remains the cornerstone of support for the aged in Ghana and many other developing countries (Zimmer & Dayton, 2003; Darteh *et al*., 2014).

Maslow's Hierarchy of Human Needs Theory

The Maslow's hierarchy of human needs theory as the name implies was developed by Maslow in 1943 to explain how an individual is motivated to acquire his/her needs (Maslow, 1943; Jerome, 2013). It has been suggested that this theory is applicable to how nations develop and improve upon the QOL of their citizenry since quality is related to the progressive satisfaction of the hierarchy of needs (Sirgy, 1986). According to Maslow, all needs of human beings can be grouped under five domains (Ojha & Pramanick, 2009). These needs are arranged in a hierarchical order from physiological needs, followed by safety needs, social needs, esteem needs and finally self-actualisation (Maslow, 1943; Maslow, 1954). Once the physiological needs are nearing complete satisfaction, effort is allocated to the next level thus safety needs and so on for each of the higher needs (Hagerty, 1999). Figure 2 illustrates Maslow's hierarchy of human needs theory.

Physiological needs are the needs at the bottom of the triangle and include the lowest order and most basic needs (Kaur, 2013). These include food, clothing, air, water and shelter (Maslow, 1954). The availability or non-availability of these basic necessities of life determines the QOL of the aged with disability (Kerce, 1992; Hagerty, 1999; Martin & Joomis, 2007).

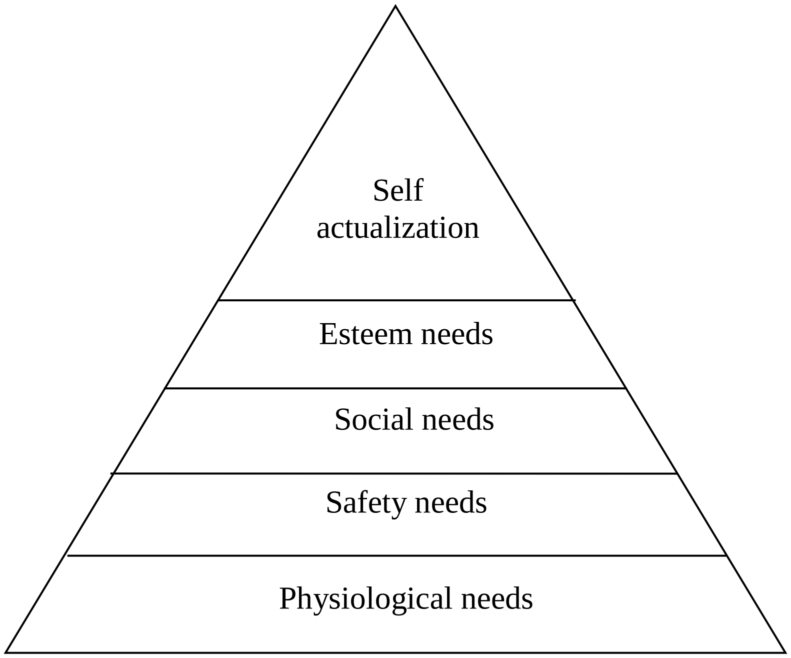

***Figure 2*: Maslow's hierarchy of human needs theory**

Source: Maslow (1943; 1954).

The second need is safety. The safety needs are thought of and sought for after the physiological needs are met and they are needs for security, stability and order (Ojha & Pramanick, 2009; Kaur, 2013). The aged with disability at this level hope to have an environment free from any threats or harm (Ojha &

Pramanick, 2009). These threats could be thievery, violence, floods or conflicts (Kaur, 2013). The third need within the triangle is social needs. Social needs refer to the need to be loved and accepted by family members and the community at large (Sirgy, 1986; Martin & Joomis, 2007). To meet these needs, the community can encourage the aged with disability to participate in social events such as picnics, naming ceremonies, marriage ceremonies and decision making regarding the development of the community (Kaur, 2013). The rationale here is that individuals overcome their feelings of loneliness and alienation through giving and receiving of love, affection and having the sense of belonging (Jerome, 2013).

Esteem needs occupy the fourth level on the hierarchy of needs. This level is fundamental to the QOL of the aged with disability and it includes the need for self respect and approval of others (Kaur, 2013). This involves needs for both self-esteem and for the esteem a person gets from others (Martin & Joomis, 2007; Jerome, 2013). When these needs are satisfied, an individual feels self-confident and valuable and in effect has high QOL (Hagerty, 1999). In the contrary, when these needs are not satisfied, an individual feels inferior, weak, helpless and worthless (Jerome, 2013).

The last but not the least level in the triangle is self-actualisation. This refers to the need to become all that one is capable of, being able to develop ones fullest potential, capacities, and talents (Maslow, 1954; Martin & Joomis, 2007). Though every individual desires to reach this level, life challenges including disabilities and diseases may cause an individual to fluctuate between levels of the hierarchy (Lueckenotte, 2000). In summary, the Maslow's hierarchy of human needs theory espouses QOL as the hierarchical level of need satisfaction of the aggregate members of a society and as a result reflect that the greater the need satisfaction, the greater the QOL of that society (Sirgy, 1986; Hagerty, 1999).

The Maslow's hierarchy of needs theory has a number of flaws. The theory cannot be generalised because in old age there is a significant decline in need for self-actualisation and a significant increase in the physical and security needs (Ojha & Pramanick, 2009). Again, cultural variation does not allow some individuals to have their needs in a hierarchy and may seem to act on their perception of reality per their culture (Ifedili & Ifedili, 2012). In addition, there is much evidence to support the motivational force of physical, safety, love, and esteem needs of individuals, however, in the same way, much of the evidence has failed to discover a fixed hierarchical arrangement (Hagerty, 1999; Griffin, 2006; Griffin & McClish, 2011).

Selective Optimisation with Compensation Theory

It is natural that when an individual grows old his/her physical capacity diminishes (Hossain, 2014). The theory of selective optimisation with compensation developed by Baltes in 1987 then postulates that an individual who ages successfully compensates for these diminishing capacities through selection, optimisation and compensation (Schroots, 1996; Lueckenotte, 2000). In this case, the diminishing capacities of the aged with disability require them to engage in an integrative approach of three elements: selection, optimisation and compensation for a successful ageing (Baltes, 1987; Schroots, 1996). The theory argues that first; there is an element of selection which involves increasing restriction of one’s life to fewer domains of functioning (Baltes, Lindenberger & Staudinger, 1998). This element implies that the aged with disability has to choose activities that are within their capabilities (Baltes & Carstensen, 1996).

The second element is optimisation which requires the individual to set goals so as to achieve the desired adaptation outcomes (Schroots, 1996). This means that individuals need to regulate their behaviour which gears towards the attainment of their set goals (Baltes & Carstensen, 1996). The third element, compensation, presupposes that the individual needs to adapt appropriate strategies to compensate for loss ones (Schroots, 1996; Baltes *et al*., 1998). The compensation element of this theory is in line with the activity theory of ageing which focuses on substituting new activities for lost ones (John, 1984).

The selective optimisation with compensation theory does not only contribute to successful ageing in general, but also allows individuals to successfully adjust to specific and difficult situations with declining functions (Lueckenotte, 2000; Ouwehand *et al*., 2007). That is why the theory suggests that individuals’, irrespective of their form of disability, should be optimistic by maximizing their gains while minimizing their losses (Baltes *et al*., 1998). The theory further proposes that societies need to provide the appropriate environment and opportunities for older people to be able to deal with the losses associated with ageing (Baltes & Carstensen, 1996).

There are some weaknesses associated with this theory. The selective optimisation with compensation theory provides no clear guidance on how to care for older people and how to support them in their ageing processes (Wadensten, 2006). Also, the theory claims to be universal but fails to state plainly the universal strategies that an individual will put in place to age successfully (Ouwehand *et al*., 2007). Besides, it is economically biased because of its frequent association with economic criteria of productivity (Baltes, 1997).

Concept of Social Protection

Social protection has no single meaning; however, it is concerned with interventions which supplement consumption, protection from risk, and reducing poverty and vulnerability of people (Mathers & Slater, 2014). It is also regarded as the strategies put in place by the society to guard its members against socio-economic shocks such as sickness, industrial or work-related injury, invalidity, old age, and death of the breadwinner (García & Gruat, 2003). Social protection is guided by some principles like equality of treatment, solidarity, inclusiveness, general responsibility of the state, transparent and democratic management (International Labour Office, 1998).

Generally, social protection is viewed from two major forms. These are formal and informal forms (United Nations, 1949). Formal social protections are interventions often emanating from the state, aid agencies or even civil society organisations which mostly target people in the formal sector (United Nations, 1949; Ratuva, 2010). On the other hand, informal social protections are interventions which are usually community and family based and primarily relate to cultural systems of exchange, social networking and social safety nets (Ratuva, 2010).

Concept of Self Esteem

The meaning of self-esteem is open to debate since many scholars have divergent views about it (Baumeister, Campbell, Krueger & Vohs, 2003; Kernis, 2003; Goswami, 2013). Self-esteem does not carry any definitional requirement of accuracy whatsoever; therefore, it is based on perception rather than reality (Baumeister *et al*., 2003). To some, self-esteem is a personality variable that represents the way people generally feel about themselves (Brown, Dutton & Cook, 2001). For instance, an individuals' self-esteem rises when he wins a contest or an award and equally falls with his corresponding failures (Baumeister *et al*., 2003).

The concept also means the state in which individuals assess their various abilities and attributes deserving respect and liking (Brown *et al*., 2001; Kernis, 2003). It refers to the way people feel about themselves which affects their relationship with their environment and the people they encounter in their daily activities (Kernis, 2003).

In the opinion of Goswami (2013), self-esteem is all about how much people feel they are worth and how much they feel other people around them treasure them. According to Higgins (1987), self-esteem thrives on three basic domains of the self concept: actual self, ideal self, and ought self. Higgins explains that actual self is an individual's representation of the attributes that someone believes he or she actually possesses; the ideal self is a person's representation of the attributes that someone would like him to ideally possess; and ought self means an individual's representation of the attributes that someone believes he ought to possess. Self esteem is measured on a scale of low or high and measurement of self esteem generally creates strong emotional reactions among people (Baumeister *et al*., 2003).

People with high self-esteem seem to feel good about themselves and are capable of indentifying their strengths and weaknesses in a satisfactory manner (Goswami, 2013). For example, a person might have high self-esteem after getting his promotion (Brown *et al*., 2001). In the contrary, individuals with low self-esteem have ill-feelings about themselves and believe they deserve scorn and pity (Baumeister *et al*., 2003; Kernis, 2003). For instance, an individual could have low self-esteem after being caught in a rape case (Brown *et al*., 2001). Kernis (2003) contends that self-esteem is a necessary psychological construct because it is a central component of individuals' daily experiences. Goswami (2013) adds that it is important because feeling good about yourself contributes positively to the QOL of an individual.

Conceptual Framework

Several theories and models of ageing, disability and QOL have been reviewed, however, the International Classification of Functioning, Disability and Health (ICF) model is adapted as a conceptual framework for this study (WHO, 2001; WHO, 2002a). The original ICF model is shown in Figure 3. The ICF model indicates that the health condition of an individual is determined by the interaction of five broad factors of life which comprise body functions and structures, activity, participation, environmental and personal factors (WHO, 2001). There are other subcomponents of each of the broad factors which interact together in determining the health condition of an individual (WHO, 2002a).

The body functions and structures depict the functioning or impairment of an individual's physiological, anatomical and psychological characteristics (WHO, 2001; van Roekel *et al*., 2014). The activity aspect describes a person's functional status including communication, mobility, interpersonal interactions, self-care, domestic life, learning and skills (WHO, 2001; Stucki, Cieza & Melvin, 2007; Badley, 2008). The participation subcomponent relates more to the larger society and concerns the involvement of an individual in a practical life situation including work/employment, interpersonal relationships, community and social life (WHO, 2002a; Kostanjsek, 2011; van Roekel *et al*., 2014).

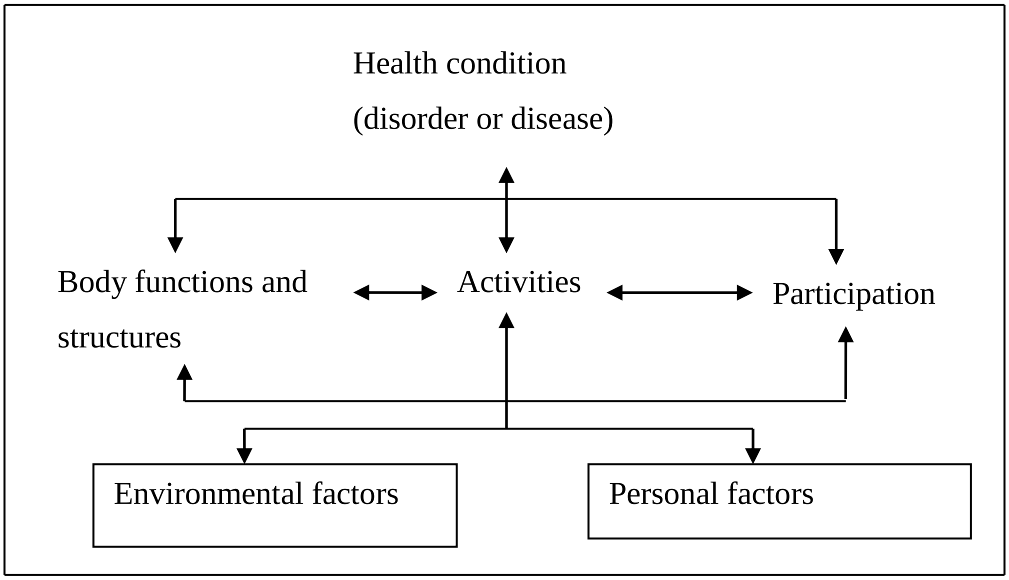

***Figure 3*: Interactions between the components of the ICF**

Source: WHO (2001).

The environmental factors are described as the external factors that make up the physical, social, and attitudinal factors that people live and conduct their lives (Hemmingsson & Jonsson, 2005; Saleeby, 2007). These factors include products and technology, natural environment and human made changes to the environment, support and relationships, services, systems and policies, and stigmatisation (Hemmingsson & Jonsson, 2005; van Roekel *et al*., 2014).

Personal factors on the other hand are to a greater extent related to the individual's background characteristics such as age, sex, educational level, lifestyles and race (Jette, 2006; Saleeby, 2007; Quinn *et al*., 2012). All the five factors in the ICF model have direct influence on how disablement is experienced by individuals (Jette, 2006).

Background of the ICF Model

Many models of disability including the medical model, social model, and the International Classification of Impairment, Disability and Handicap (ICIDH) model of human functioning serve as the basis upon which the ICF model was built (WHO, 1980; Mitra, 2006). In 1980 for instance, the WHO introduced the ICIDH model of human functioning to deal with issues relating to disability (WHO, 1980). This model had three domains consisting of body structures and functions, activities within an individual context, and activities in the social context (Buntinx & Schalock, 2010). However, it was flawed because the environment as a major determinant of human functioning was not incorporated into this model of disability (WHO, 1980; Stucki & Cieza, 2004; Buntinx & Schalock, 2010).

A more recent of these frameworks which incorporates the environment as a major determinant of human functioning is the ICF model (Peterson, 2005). The

ICF model is an integrative framework of the social and medical models of disability and thus a ‘biopsychosocial’ model which combines different perspectives of health from a biological, individual and social perspective (WHO, 2001).

The ICF model was approved for use by the World Health Assembly in 2001 after it had been tested among people with disabilities across nations and continents with varying cultures (Peterson, 2005; Kostanjsek, 2011). This framework traces its roots as far back to 1976 when the WHO drew a distinction between impairment, disability and handicap (WHO, 1980; WHO, 2001). Impairment was described as any abnormality of physiological or anatomical structure or function (WHO, 2001; WHO, 2002a). Disability was defined as any restriction to perform an activity within the range considered normal for a human being (WHO, 2001; Hwang & Nochajski, 2003). Handicap was explained as a disadvantage for a given individual resulting from impairment or a disability, which prevents the fulfilment of a role that is considered normal for that individual (WHO, 1980; WHO, 2001; WHO, 2002a; Hwang & Nochajski, 2003).

In order to get a better understanding of the nature of disability, the WHO after 1980 improved upon the ICIDH model and came up with a new model in 2001 called the ICF model (WHO, 2001). The ICF model is built on four cardinal principles which are universality, parity, neutrality, and environmental influence (WHO, 2002a). On the principle of universality, it is contended that any classification of functioning and disability should be applicable to all people irrespective of their health condition and in all physical, social and cultural contexts (WHO, 2002a). The ICF model achieves this and acknowledges that anyone can experience some disability at any point in life (WHO, 2002a). It focuses on everyone's functioning and disability, and discourages the labelling of PWDs as a separate social group (WHO, 2001; WHO, 2002a).

The principle of parity builds on the ideology that, in classifying functioning and disability, there should not be a distinction between different health conditions, whether mental or physical (WHO, 2002a). The basis here is that by shifting the focus from health conditions to functioning, the model places all health conditions on an equal footing, allowing them to be compared using a common measure (WHO, 2013). Again, the principle of parity deactivates the comparison of disabilities based on causality (Kostanjsek, 2011). On the principle of neutrality, it is contended that domain definitions of functioning and disability should be worded in neutral language, wherever possible, so that the classification can be used to record both the positive and negative aspects of functioning and disability (WHO, 2002a; Kostanjsek, 2011).

The fourth principle, environmental influence, is said to have an impact on all components of functioning and disability (Hemmingsson & Jonsson, 2005). The environment entails socio-political factors such as social attitudes, institutions, and laws; physical factors including climate, terrain and architecture characteristics (WHO, 2002a; Kostanjsek, 2011). An individual's interaction with these environmental factors is an essential aspect of the scientific understanding of functioning and disability (WHO, 2001; WHO, 2002a).

Adapted ICF Framework

The study has adapted the ICF model as a framework because of its universality and holistic nature in explaining the health condition of an individual (Figure 4).

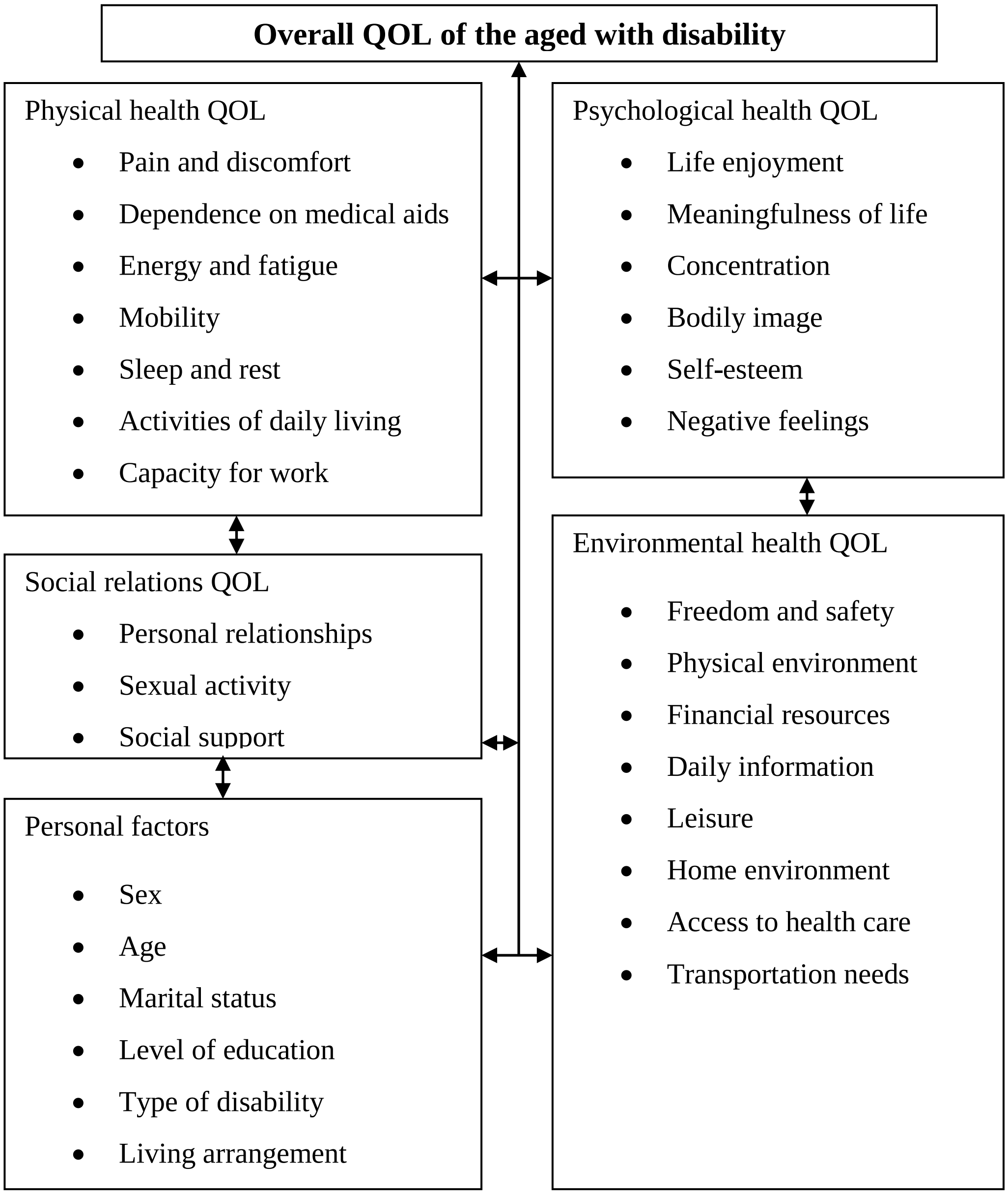

***Figure 4*: Interactions among the Determinants of QOL Framework**

Source: Adapted from WHO (1996) and WHO (2001).

QOL is a health condition since the degree of QOL which could be low or high affects the health of an individual (WHO, 1996; WHO, 2001). This is because it is part of what is defined as health “a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity” (WHO, 2015, p. 228).

In Figure 4, the QOL of the aged with disability is determined by the interaction of the five main domains; physical health, psychological health, social relations, environmental health and personal factors (WHO, 1996). These domains do not act in isolation because the absence of one of them may affect the essence of measuring the QOL of the aged with disability (WHO, 1996). In addition, each of these domains has other subcomponents which interact in an intra and inter-symbiotic manner to determine the QOL of the aged with disability (WHO, 1996).

To begin with, the subcomponents of the physical health QOL domain are pain and discomfort, dependence on medical aids, energy and fatigue, mobility, sleep and rest, activities of daily living, and capacity for work (WHO, 1996; WHO, 2001). The psychological health QOL domain comprises life enjoyment, meaningfulness of life, concentration, bodily image, self-esteem, and negative feelings (WHO, 1996). The Social relations QOL domain constitutes personal relationships, sexual activity, and social support (WHO, 1996; WHOQOL Group, 1998).

The environmental health QOL domain includes freedom and safety, physical environment, financial resources, daily information, leisure, home environment, access to health care, and transportation needs (WHO, 1996; WHO, 2001). Furthermore, the personal factors domain consists of sex, age, marital status, level of education, type of disability and living arrangement (WHO, 1996; WHOQOL Group, 1998). This adapted framework, in summary, is designed specifically to measure QOL. The ICF model is relevant to this study in many ways. It provides a standard and unified framework for measuring and describing not only the concept of QOL of individuals in a real life situation, but also in identifying ways of intervening with the right policies to improving the life situations of individuals with disabilities (WHO, 2001; Schalock, 2004; Saleeby, 2007).

Again, the model presents a complex bio-psychosocial approach which can be used in describing how PWDs are participating in society as required by the UN Convention on the Rights of PWDs (Clarke & Nieuwenhuijsen, 2009; WHO, 2013). Furthermore, using the ICF as a universal model for disability data collection helps create better data set and also ensure that quantitative and qualitative sources of data are well synthesised (Stucki & Cieza, 2004; WHO, 2011). More specifically, the ICF provides a scientific foundation for understanding and measuring health and health related states of people (Clarke & Nieuwenhuijsen, 2009). In addition, it has internal ethical guidelines which are in line with the principles of the UN Convention and these ethical guidelines require that respondents consent be sought in the data collection process (WHO, 2013). Furthermore, in this study, the overall QOL, physical health QOL, psychological health QOL, social relations QOL and environmental health QOL domains of the adapted framework guided the formulation of the research objectives, hypotheses and design of questionnaires, IDIs and FGDs guides (WHO, 1996).

Despite the contribution of the ICF model of disability to research and policy development and implementation, it has some challenges. There is no agreement among users as to whether the activity and participation domain is either ‘activity or participation’ or ‘activity and participation’ (WHO, 2001; Dahl, 2002). In this sense, it is even difficult to distinguish practically between activities and participation on the basis of the ‘activities’ and ‘participation’ domains (Salvador-Carulla & Garcia-Gutierrez, 2011).

Also, the medical classification of people in the forms of disease or disorder has contributed much to the stigmatisation and oppression of PWDs (Hemmingsson & Jonsson, 2005). Again, it is only useful for individual care planning but not useable as an administrative and policy tool to guide accessibility to services related to health and social care planning (Salvador-Carulla & Garcia-Gutierrez, 2011).

Summary

This chapter discussed issues on quality of life (QOL) and concepts of ageing and old age. Again, theories including the demographic transition theory, epidemiological transition theory, genetic control theory, telomere theory, free radical theory, activity theory, disengagement theory, continuity theory, exchange theory and modernisation theory of ageing were reviewed.

Besides, models of disability such as the medical model, social model, economic model and human rights model were discussed. In addition, literature on activities of daily living and instrumental activities of daily living were presented. This chapter further looked at the hierarchical compensatory model, task specificity model and complementary model of social care for the elderly. Furthermore, social capital for the aged and the concept of self esteem were captured. Finally, the International Classification of Functioning, Disability and Health (ICF) model was reviewed and adapted as a conceptual framework for the study.

CHAPTER THREE

REVIEW OF CONTEXTUAL AND EMPIRICAL LITERATURE

Introduction

Chapter Three provides explanations on issues of global population ageing, ageing policy in Ghana, disability trend in Ghana, persons with disability Act, 2006 Act 715 of Ghana, poverty and disability, social exclusion of Persons with Disabilities (PWDs) in Ghana, social protection programmes for the aged and PWDs, PWDs organisations, Non-Governmental Organisations (NGOs) for the aged in Ghana, participation of the aged in society, assistive devices and human assistance for PWDs, and quality of life of the aged.

Global Population Ageing

Population ageing is a demographic process which eventually leads to smaller proportions of children and larger proportionate shares of older people in the population (UN DESA, Population Division, 2013). At the global level from 2010 to 2050, the total population is expected to increase by 2 billion while the older population will increase by 1.3 billion (Beard *et al*., 2012). Some demographic dynamics are contributing to this trend. Decreasing fertility rates and increasing longevity are being observed throughout the world and there is a projection that by 2025, about 120 countries will have reached total fertility rates below replacement level which is an improvement compared to 1975, when just 22 countries had a TFR equal to the replacement level (Arshad & Bhat, 2013).

Population ageing varies across the regions (United Nations, 2002). For instance, in the global North, the population aged 60 years and older will increase from 231 million to 395 million between 2000 and 2050, while that of the global South will increase from 374 million to 1.6 billion within this same period (Crampton, 2009; UN DESA, Population Division, 2002). Although Europe is described as the oldest region with 22 percent of its population aged 60 years and older, Japan has the highest proportion (31.6%) of older persons (Ghana Statistical Service, 2013a). Relatively, Africa has the youngest population but will have about 10 percent of its population aged 60 years and older by 2050 (Ghana Statistical Service, 2013a).

The older population of Africa, estimated to be slightly over 38 million, is projected to reach 212 million by 2050. For the period 2000-2030, the population of older people will more than double in many countries including the Democratic Republic of Congo (2.1 to 4.9 million), Mozambique (0.8 to 2.1 million), Cameroon (0.8 to 1.6 million), Ghana (1 to 2.8 million) and from 0.8 to1.9 million in Uganda (Kalasa, 2005). During the same period, the proportion of older people will also rise dramatically (Kalasa, 2005).

In Mozambique, the increase will be from 3.9 to 5.7 percent; in Sudan 3.9 to 6.4 percent; Guinea 4.5 to 6.0 percent; Ghana 5.1 to 9.5 percent; and in South Africa, from 7 to 11.5 percent (Kalasa, 2005; Ghana Statistical Service, 2013a). Between 2006 and 2050, the number of older people in sub-Saharan Africa is projected to increase from over 35 million to over 139 million (Velkoff & Kowal, 2007). However, within this same sub-region, the proportion of the elderly population will range from a low 3.5 percent of the population in Zambia to about 7 percent in Guinea (Kakwani & Subbarao, 2005).

There is also a gender dimension of population ageing across the world, the sex ratio among persons aged 60 years and older varies greatly across the regions (United Nations, 2002). In 2013, the sex ratios in some of the regions were: Europe 72 men per 100 women; Northern America 82 men per 100 women; Oceania 88 men per 100 women; and Asia 91 men per 100 women (UN DESA, Population Division, 2013). One main reason established in relation to this phenomenon is that men have higher death rates than women at all ages, although, about 105 boys are born per 100 girls in most populations, men usually decline in number between ages 30 and 40 **(**Himes, 2002; Kinsella & Phillips, 2005). Though most elderly women today outlive their spouses, they cannot escape the challenges of later life including: poverty, living alone and the need for long term care at nursing homes (Himes, 2002; United Nations Population Fund & HelpAge International, 2012).

One emerging issue is that the older population in itself is ageing with the oldest-old (Himes, 2002; United Nations, 2002). Thus, those aged 80 years and older are the fastest growing age group in the world (United Nations, 2002; UN DESA, Population Division, 2013). This age group is increasing at 3.8 percent per year and comprise more than one tenth of the total number of older persons (United Nations, 2002). In 2013, the share of the older persons aged 80 years and older within the older population was 14 percent and is projected to increase to 19 percent by 2050 and by then they will be about 268 million in the less developed regions compared to only 124 million in the more developed regions (UN DESA, Population Division, 2013).

Arshad and Bhat (2013) have posited a number of implications associated with the growing trend of the oldest-old population. Arshad and Bhat indicate that in the first place, pension benefits will need to cover a longer period of life for beneficiaries. Secondly, health care costs will rise due to increasing disability rates (Arshad & Bhat, 2013). Besides, dependency rate will take on an added dimension as the number of grandparents and great grandparents increase (Arshad & Bhat, 2013).

Ageing Policy in Ghana

The genesis of the ageing policy in Ghana was in 1997 when a national committee on ageing was formed by the then Ministry of Employment and Social Welfare to draft a National Policy on Ageing for the country (National Population Council, 2007). This Draft Policy was reviewed by the Centre for Social Policy Studies (CSPS) of the University of Ghana and submitted to the Ministry in February 2002 (National Population Council, 2007). The draft policy sought to recognise the rights of older persons, respond to challenges that affect them and promote the active participation of the aged in mainstream society for national development (Ministry of Employment and Social Welfare, 2010).

Further in 2010, the Government of Ghana developed the National Ageing Policy titled ‘ageing with security and dignity’ and its accompanying implementation action plan (WHO, 2014a). This policy stems from the guiding principles of the Madrid International Plan of Action on Ageing as well as the African Union Policy Framework and Plan of Action on Ageing (WHO, 2014a).

Some of the objectives of the National Ageing policy are to:

- Fully realise all human rights and fundamental freedoms of all older persons.
- Empower older persons to fully and effectively participate in the economic, social and political lives of their societies.
- Ensure the full enjoyment of economic, social, cultural, civil and political rights of persons and the elimination of all forms of violence and discrimination against older persons.
- Recognise the cultural importance of families, intergenerational interdependence, solidarity and reciprocity for social development.
- Provide health care, support and social protection for older persons including preventive and rehabilitative health care.
- Empower older persons to effectively participate in making decisions that directly affect them (Ministry of Employment and Social Welfare, 2010).

One of the challenges towards the implementation of the National Ageing Policy is that the Ghana Health Service which is the institution expected to implement the health and nutrition component of the policy, does not have a plan for its implementation (WHO, 2014a). Again, there is inadequate funding for full implementation of the policy due to competition for scarce resources which usually target children, adolescents, and women of reproductive age (WHO, 2014a).

Disability Trend in Ghana

According to the Ghana Statistical Service (2012), some Ghanaians are battling with some forms of disability including physical, visual or sight, speech, intellectual and emotional or behavioural. The population with these forms of disability is 737, 743 (3.0%) out of the total population of 24,658,823. The highest form of disability is visual or sight (1.2%), followed by physical (0.8%) and emotional/behavioural which is 0.6 percent (Ghana Statistical Service, 2012). Numerically, about 295,720 people live with visual impairment; 187,522 physical disabilities and 136,898 emotional disabilities (Ghana Statistical Service, 2012). The people living with visual and physical disabilities constitute two percent of all the people living with some forms of disability in Ghana (Ghana Statistical Service, 2012).

In the Upper west region of Ghana, out of the total population of 702,110, the people living with some form of disability are 25,746 (Ghana Statistical Service, 2013b). Out of the total disability population of 25,746, the highest type of disability is visual or sight which is 9,655, followed by physical which is 5,417 (Ghana Statistical Service, 2012; Ghana Statistical Service, 2013b). By implication, people with visual or sight and physical forms of disability make up 15,072 of the total population with disability (Ghana Statistical Service, 2012).

Just like many other African countries, Ghanaians living with disability experience some level of challenges (Aboderin, 2010). In some cases, people attach stigma to some types of disability and for that matter the elderly living with disability are no exception (Ba-Ama & YaabaAckah, 2014). This phenomenon of stigmatisation may expose victims to social exclusion especially when they lack protection from their children or family (Aboderin, 2008; Ghana Statistical Service, 2013a).

Disability among the Aged in Ghana

The prevalence of disability among the elderly in Ghana is relatively high as compared with the rest of the population (Ghana Statistical Service, 2013a). For instance, it was recorded in 2010 that, more than a tenth (12.3%) of the elderly had one or more kinds of disability, compared to 2.3 percent of the population aged less than 60 years (Ghana Statistical Service, 2013a). This was expected because the elderly are more likely to suffer from non-communicable diseases some of which cause disability (WHO, 2011). For instance, loss of sight at old age is associated with diabetes; and paralysis from stroke is often experienced as a complication of hypertension (Ghana Statistical Service, 2013a).

Though the aged could be a cohort, there are variations among them based on culture, life experiences, gender, and health status (Lueckenotte, 2000). It is observed that the proportion of individuals with disability increases with advancement in age (WHO, 2011). For instance, among the age groupings in Ghana, disability of those aged 60-64 year-olds is 8.1 percent while that of those aged 80 years and older is 18.5 percent (Ghana Statistical Service, 2013a). Besides, disability is slightly more prevalent among those living in rural areas (13.0%) than among those living in urban areas which is 11.5 percent (Ghana Statistical Service, 2013a).

According to the Ghana Statistical Service (2013a), the commonest types of disability reported among the elderly include sight (29.0%), physical (18.4%), emotional (13.4%), intellectual (11.0%) and hearing (10.8%). The Ghana Statistical Service (2013a) suggests that the high rates of disability among the elderly may expose them to high risks of stigmatisation and violence, especially when they lack protection from their children or family. In addition, the Ghana Statistical Service (2013a) indicates that some types of disability such as sight and physical disabilities influence the ability of the elderly to engage in economic activities. That is why only 7.5 percent of the elderly with disability are engaged in any economic activities (Ghana Statistical Service, 2013a). The predominant occupation of the disabled elderly is skilled agricultural, forestry and fishery (69%), wholesale and retail trade (13.5%) and manufacturing being 6.9 percent (Ghana Statistical Service, 2013a).

Even though, literacy status is one of the indicators of human development, the literacy rate among the elderly is considerably low with nearly seven out of ten of them are not proficient in any language, local or foreign (Ghana Statistical Service, 2013a). Just a little over a fifth are literate in English and a Ghanaian language and only small fractions are proficient in Ghanaian language and a combination with English or French (Ghana Statistical Service, 2013a).

Persons with Disability Act, 2006 Act 715 of Ghana

The Persons with Disability (PWD) Act of Ghana, Act 715 of 2006, is an important legislation which intends to protect and advance the rights and interests of PWDs (Ghana Center for Democratic Development, 2006; Asante & Sasu, 2015). This Act (Act 715) is built on the social model of disability's assumption that the disadvantage of disability arises not from the physical or medical condition of the person with disability, but stems from the social attitudes, prejudices and misconceptions that cause the persons with disability to be marginalised and discriminated against (Ghana Center for Democratic Development, 2006). The disability Act (Act 715), intends overcoming the disadvantages of disability by breaking down and removing socially constructed barriers that hinder the mainstreaming and progressive development of a Person with Disabilities (PWDs) in such areas as education, health, employment and spatial access (Ghana Center for Democratic Development, 2006).

The persons with Disability Act, Act 715 of 2006 have eight broad sections (Oye-Lithur, Stickney & Nathan, 2007; Asante & Sasu, 2015). Each of these broad sections is summarised based on their specific policy considerations (Asante & Sasu, 2015). The first section captures issues relating to the rights of PWDs (Oye-Lithur *et al.*, 2007; Asante & Sasu, 2015). PWDs have the right to live with their families or the right to participate in social, political, economic, creative or recreational activities (Ghana Federation of the Disabled [GFD], 2006; Asante & Sasu, 2015). This Act does not allow PWDs to be subjected to differential treatment in their residential status (GFD, 2006). PWDs have the right to be employed by any person or institution without any form of exploitation or discrimination (GFD, 2006; Oye-Lithur *et al.*, 2007). Courts are required to provide a supportive environment when a PWD is to appear in court so as to enable the person contribute effectively to proceedings (Oye-Lithur *et al*., 2007; Asante & Sasu, 2015). This section also states that all private and public buildings and services which the public have access should be made accessible to and available for use by PWDs (GFD, 2006; Oye-Lithur *et al*., 2007; Asante & Sasu, 2015).

The second section contains issues of employment of PWDs (GFD, 2006; Oye-Lithur *et al*., 2007). It states that the government shall establish public employment centres and assist PWDs in securing jobs (Asante & Sasu, 2015). The government shall grant special incentives to PWDs who are engaged in business and equally grant special incentives to any person or corporate body that employs a PWD (GFD, 2006; Ministry of Employment and Social Welfare, 2010). Any person or institution which employs a PWD shall provide the relevant working tools and appropriate facilities for him/her to work effectively and efficiently (GFD, 2006; Oye-Lithur *et al*., 2007; Ministry of Employment and Social Welfare, 2010).

Section three considers matters on education of PWDs (GFD, 2006). A parent, guardian or custodian of a child with disability of school going age is mandated to enrol the child in a school (GFD, 2006; Ministry of Employment and Social Welfare, 2010). The Act insists that a parent, guardian or custodian who contravenes this directive commits an offence and is liable on summary conviction to a fine or to a term of imprisonment not exceeding fourteen days (Ministry of Employment and Social Welfare, 2010; Asante & Sasu, 2015). The government is required to establish special schools and provide free education for PWDs (GFD, 2006; Asante & Sasu, 2015).

Section four concentrates on transportation of PWDs (GFD, 2006). The government is expected to ensure that the needs of PWDs are considered in the design, construction and operation of the transportation network (Ministry of Employment and Social Welfare, 2010). PWDs should be allowed to import a vehicle adapted or modified for use and such vehicles should be exempted from import duties and any other tax relating to the importation (GFD, 2006). It is mandatory on the part of a motorist to stop for a PWD to cross the road either at the pedestrian crossing or at an appropriately designated point for crossing if the PWD intends to cross (GFD, 2006; Ministry of Employment and Social Welfare, 2010). This Act mandates private and state institutions to provide special parking places for the exclusive use of PWDs (Ministry of Employment and Social Welfare, 2010). All commercial buses are supposed to reserve at least two seats for PWDs which will only be occupied when the bus is full without the reserved seats having been occupied (GFD, 2006; Ministry of Employment and Social Welfare, 2010).

Section five is about health-care and facilities for PWDs (GFD, 2006; Asante & Sasu, 2015). Health policies formulated shall provide for free general and specialist medical care, rehabilitative operation treatment and appropriate assistive devices for persons with total disability (GFD, 2006). The Government shall provide for the periodic screening of children in order to detect, prevent and manage disability (Asante & Sasu, 2015). The Government shall ensure that the study of disability or disability related matters are included in the curricula of training institutions for health professionals in order to equip them with the knowledge and skills needed to provide care for PWDs (GFD, 2006; Asante & Sasu, 2015).

Section six comprises miscellaneous provisions for PWDs (GFD, 2006). The Persons with Disability Act, 2006 Act 715, states that any person who manufactures technical aids or appliances that PWDs use shall be exempted tax (GFD, 2006; Asante & Sasu, 2015). It warns against any person who calls PWDs derogatory names due to their disability (GFD, 2006). The Act employs the state to ensure that any activity organised at any level has available facilities for the participation in the activity by PWDs (Ministry of Employment and Social Welfare, 2010; Asante & Sasu, 2015). Law enforcement agencies are entreated to take into account the disability of a person on arrest, trial or confinement and provide for that person accordingly (GFD, 2006; Asante & Sasu, 2015).

Section seven highlights the need for the establishment and functions of a National Council on PWDs (GFD, 2006; Oye-Lithur *et al*., 2007). The objective of the Council is to propose and develop policies and strategies to enable persons with disability enter and participate in the mainstream of national development process (Oye-Lithur *et al*., 2007; Ministry of Employment and Social Welfare, 2010). In order to achieve this objective, the Council engages in a number of activities including monitoring and evaluation of disability policies and programmes, coordinating disability activities and mobilizing resources (GFD, 2006; Oye-Lithur *et al*., 2007).

Section eight of the Act outlines the administrative and financial provisions of PWDs (GFD, 2006; Oye-Lithur *et al*., 2007). The president of Ghana appoints the Executive Secretary who is responsible for the day to day administration of the Council and he/she is answerable to the Board of the Council (GFD, 2006; Oye-Lithur *et al*., 2007).

Despite the composition of this Act (Act 715) there are still glaring omissions which comprise housing and voting rights of PWDs (Asante & Sasu, 2015). Also, there is little monitoring mechanism within the state or the disability movement to ensure full compliance of this legislative provision (JMK Consulting Research, 2008). Again, the Act is not age-specific and therefore does not indicate clearly the age-specific needs of the aged with disability (Ministry of Employment and Social Welfare, 2010). Further, the Disability Act is silent on gender dimension of discrimination against PWDs. Females with disability face more discrimination and prejudices at the household and community levels than men (UNDP, 2007).

Poverty and Disability

Poverty is multi-faceted and directly linked with vulnerability, physical weakness, physical and social isolation, powerlessness, insecurity and low self esteem (Heslop & Gorman, 2002). Poverty in its most general sense is the lack of basic necessities such as food, shelter, medical care, and safety (Bradshaw, 2006). As a result, the meaning of old age does not only consider advancement in age but the changing roles accompanying the physical change and reduced capacity to maintain livelihood (Heslop & Gorman, 2002). This is because it is suggested that older people and people living in households with an older person face higher levels of poverty (United Nations Population Fund & HelpAge International, 2012). Poverty is one of the main threats to the well-being of the older population because access to health care, good nutrition, basic services and adequate shelter is limited for many of the world's older poor (Elwan, 1999; United Nations Population Fund & HelpAge International, 2012). In relation to this view, the progressive social theory of poverty ascribes poverty to the economic, political, and social system which causes people to have limited opportunities and resources with which to achieve income and well being (Bradshaw, 2006).

Poverty affects individuals differently based on age, gender and location (Heslop & Gorman, 2002; United Nations Population Fund & HelpAge International, 2012). The individual theory of poverty blame individuals in poverty for creating their own problems and argue that with harder work and better choices, the poor could have avoided their problems (Bradshaw, 2006). On the contrary, older women, especially widows and those without children are particularly vulnerable, both economically and socially (United Nations Population Fund & HelpAge International, 2012). Also, women with disabilities suffer a double discrimination, both on grounds of gender and impairment (DFID, 2000). The cultural belief systems theory of poverty suggests that poverty is created by the transmission over generations a set of beliefs, values, and skills that are socially generated and held by the individual (Bradshaw, 2006).

Poverty and disability as indicated earlier are intricately linked as both a cause and consequence of each other (Elwan, 1999; Braithwaite & Mont, 2009).

The onset of disability may increase the risk of poverty and poverty may increase the risk of disability (Mitra *et al*., 2011). There are many ways in which this interconnected relationship between poverty and disability could be viewed. For instance, individuals with disability have limited access to education and employment which lead them to economic and social exclusion and in effect they are caught in a vicious cycle of poverty and disability (DFID, 2000). Also, poor households do not have adequate food, basic sanitation, and access to preventive health care; as a result they suffer from malnutrition which causes disability as well as increases their susceptibility to other disabling diseases (Elwan, 1999).

Many disabled people need to spend more than non-disabled people to achieve the same standard of living and these extra costs can have catastrophic effects on their disposable income, leaving them at much higher risk of poverty and financial exclusion (Wood & Grant, 2010). Indeed, additional costs such as extra medical expenses, specialised equipment and services incurred by people with disability can impoverish them (Elwan, 1999). It is estimated that up to 50 percent of disabilities are preventable and directly linked to poverty (DFID, 2000). Some researchers have judged that once disability-related costs are taken into account, the number of households with a disabled occupant assessed as living in poverty jumps from 23 per cent to between 40 per cent and 60 per cent (Wood & Grant, 2010). Disability leads to stigma, and therefore to exclusion, which subsequently can cause poverty; poverty also appears to be a high risk factor for unintentional injuries, resulting in disability (Van Kampen, Van Zijverden & Emmett, 2008).

Disability exacerbates poverty, by increasing isolation and economic strain, not just for the individual but often for the affected family as well (DFID, 2000). It appears that poor people tend to delay medical consultation when they are ill and this delay which could be caused by monetary factors can cause exacerbation of disease and therefore, disability (van Kampen *et al*., 2008).

Social Exclusion of Persons with Disabilities in Ghana

In many parts around the world for which Ghana is no exception, social exclusion occurs in many aspects of life including economic, social and political contexts (United Nations Development Programme, 2007). In the economic context, PWDs are reported to be facing discrimination on the job market and even access to credit remains a challenge to many PWDs in Ghana (JMK Consulting Research, 2008). Again, PWDs are unable to access the two percent District Common Fund allocation that has been established to support persons with disability in Ghana (JMK Consulting Research, 2008).

In the social context, in situations where resources are constrained at the household level, opportunities are given to nondisabled siblings to the disadvantage of PWDs (JMK Consulting Research, 2008). In some Ghanaian cultural norms, physical disability is a basic criteria used in excluding people from becoming chiefs (United Nations Development Programme, 2007). Besides, the existing health policy and the NHIS do not cater for the particular health care needs of PWDs (JMK Consulting Research, 2008).

Politically, there are no sections or units of government departments dedicated fully to the disability agenda (JMK Consulting Research, 2008).

Though, the current decentralisation programme of Ghana is premised on the principle of participatory democracy, the participation of PWDs in political administration at the district level is limited (JMK Consulting Research, 2008). This is because their exclusion in employment opportunities prevents them from accumulating the necessary resources needed for contesting for political positions (United Nations Development Programme, 2007).

Formal Social Protection Programmes for the Aged

The roots of formal social protection for the aged are traced to the universal declaration of human rights in 1948 (United Nations, 1949). This declaration guarantees the aged their rights to social security and an adequate standard of living to support their health and well-being, including medical care and other necessary social services (International Labour Organization [ILO], 2014a). As a result, formal social protection programmes have been initiated in many different forms in various countries across the world to address the vulnerability status of the aged (Kazeze, 2008; Begum & Wesumperuma, 2012).

In Canada, there are specific programmes providing income support for the aged and disabled and these are collectively called Canada's public pensions system (Wiseman & Yčas, 2008). The Canada's public pensions system has three components: Canada pension plan / Quebec pension plan; old age security; and guaranteed income supplement (Wiseman & Yčas, 2008; Kesselman, 2010). The Canada pension plan provides income for retired and disabled workers and their survivors (Wiseman & Yčas, 2008). The old age security provides pension to almost all Canadians aged 65 and older (Wiseman & Yčas, 2008; Kesselman, 2010). Also, the guaranteed income supplement provides a non-taxable benefit paid to low and moderate-income seniors (Wiseman & Yčas, 2008).

In Australia, community care and residential aged care among many other programmes provide social protection to the aged (Whiteford & Angenent, 2001). Community care is provided in a person's own home by informal care givers and complemented by formal care givers while residential care is provided at an aged care facility by formal care givers (Whiteford & Angenent, 2001; Access Economics, 2010). The aged who require minimal health needs stay home and are occasionally attended to by nurses, however, those who have severe health conditions are put under residential aged care with full-time supervised health care (Access Economics, 2010).

In Thailand, many programmes are available to provide social protection for the aged and people living with disability (Suwanrada, 2013). For instance, a universal non-contributory allowance for older people was established by an old age Act, B.E. 2546 (2003), but it came into effect in 2009 through another Act B.E. 2552 (Schmitt, Sakunphanit & Prasitsiriphol, 2013). Under the Act B.E. 2552 (2009), at least, 500 baht per month is given to people who are aged 60 years and older (Schmitt *et al*., 2013; Suwanrada, 2013). These allowances vary across the aged groupings, those who are aged 60 to 69 years receive a monthly allowance of 600 baht, those of 70 to 79 years receive 700 baht, those of 80 to 89 years receive 800 baht, and those 90 years and older receive 1,000 baht (Suwanrada, 2013).

Besides, in Thailand a universal non-contributory allowance for people with disabilities was established by a legislative Act B.E. 2550 (2007), but took effect in 2010 through another Act B.E. 2552 (Schmitt *et al*., 2013; Suwanrada, 2013). This act allows the disbursement of allowance to people with disabilities through the Tambon Administrative Organisation under the responsibility of the ministry of interior (Schmitt *et al*., 2013).

In Bangladesh, elderly people benefit from a number of social protection initiatives such as: the allowance programme for the widowed, deserted, and destitute women; the public sector pension scheme; and the old age allowance scheme (Begum & Wesumperuma, 2012; Choudhary, 2013). Among these social safety net programmes, only the old age allowance scheme specifically targets all older people (Choudhary, 2013). This programme was introduced in 1998 and provides cash transfer to elderly people (Begum & Wesumperuma, 2012).

In Lesotho, a number of social protection related policies and programmes are implemented to reduce the level of poverty among the vulnerable in society (Pelham, 2007). These policies and programmes include: Food security policy, social welfare programmes, and disaster management interventions (Pelham, 2007; Omilola & Kaniki, 2014). The department of social welfare through its public assistance programme provides cash transfers to older people, war veterans, orphans, people with disabilities, and the chronically ill (Omilola & Kaniki, 2014). Besides, a non-contributory universal old age pension administered by the department of pensions provides monthly cash allowance of M150 (£12.50) to all citizens who are over 70 years old (Pelham, 2007).

Also, South Africa has initiated a number of social protection systems for its citizens (Pauw & Mncube, 2007; Kazeze, 2008). These are in the form of grants such as the state old age pension grant, disability grants, foster care grants and child support grants (Pauw & Mncube, 2007; Potts, 2012). The grants are non-contributory and based on means-testing (Kazeze, 2008). Social assistance transfers are aimed at providing income support to the eligible poor and vulnerable individuals, mostly the elderly, people with disabilities and children under the age of 14 years (Pauw & Mncube, 2007). Though the grants for the elderly are means tested, it has a universal coverage of those who are aged over 60 years and over 65 years for women and men respectively (Pauw & Mncube, 2007; Kazeze, 2008). They receive a monthly pension of about R1010 (128.98 USD) which is financed by general taxation and distributed through the Department of Social Development (Kazeze, 2008; Potts, 2012). It is claimed that the grant reduces the scale of older people's poverty, while also reducing a household's probability of living in poverty (Potts, 2012). This grant is consolidating families, preventing fragmentation, and reinforcing a support system amongst family members because pension recipients are often the main contributors to income in households (Potts, 2012).

Further, Botswana has a universal old age pension scheme which is administered by the Commissioner for Social Benefits in the Ministry of Local Government (Botswana Federation of Trade Unions, 2007). Beneficiaries receive their allowances from post offices under the supervision of social workers in the local authorities (Kalusopa & Letsie, 2012). The major objective of the scheme is to provide financial security to the elderly citizens who otherwise are without means of support due to the disintegration of the extended family support system (Botswana Federation of Trade Unions, 2007; Kalusopa & Letsie, 2012). The elderly who are aged 65 years and older are qualified to receive the old age pension which is not means-tested and non-contributory (Botswana Federation of Trade Unions, 2007). The elderly also benefit from a supplementary feeding for vulnerable groups programme which aims at distributing meals and nutritional supplements to people who are vulnerable to malnutrition, including women of child bearing age from poor or low income households (Kalusopa & Letsie, 2012).

It can be concluded from the afore mentioned countries that social protection manifests differently including cash transfers, service provisions and feeding programmes (Kazeze, 2008; Choudhary, 2013). Beneficiaries of these programmes such as the elderly, people living with disability, women and children are the vulnerable (HelpAge International, 2006). These social protection programmes are either based on means-testing or are universal; contributory or non-contributory (Wiseman & Yčas, 2008; Begum & Wesumperuma, 2012). Cash transfers are particularly important to the elderly as their income earning capacity is lower than the younger adults and continue to decline with further advancement in old age (Kazeze, 2008). Additionally, these programmes are meant to reduce the number of older people living in extreme poverty by 2015 as indicated in the millennium development goals (HelpAge International, 2006).

Social Security and National Insurance Trust in Ghana

Formal social protection in Ghana could be traced as far back to 1946 (McJulien, 1976). A non-contributory pension scheme known as CAP 30 was initially instituted for pensionable officers in the civil service and the armed forces (Boon, 2007). The CAP 30 makes it possible for employees to take home all of their earnings; no deductions are effected for pension coverage (Kumado & Gockel, 2003; Boon, 2007).

Subsequently several amendments have made social security a contributory scheme for civil and public servants (Kumado & Gockel, 2003). For instance, a compulsory savings scheme was introduced in the early 1960's by which compulsory deductions were made from the wages and salaries of all workers and paid into government chest as their savings (Boon, 2007). With this, workers were paid their savings with interest when they were due for retirement (McJulien, 1976; Boon, 2007).

In 1972, the Social Security Decree (NRCD127) laid the foundation for the establishment of rules and regulations binding all employers with a minimum of five workers to contribute their employees' social security to the scheme (Boon, 2007). Also in 1991, the Social Security Law thus, P.N.D.C.L. 247 was promulgated and led to the establishment of the SSNIT with the responsibility of overseeing the state pension scheme (McJulien, 1976; Boon, 2007).

In furtherance, the SSNIT has been reformed into a 3-tier pension by a new law in 2008 called Act 766:

- A first tier mandatory basic national social security scheme which will incorporate an improved system of SSNIT benefits, mandatory for all employees in both the private and public sectors;
- A second tier occupational (or work-based) pension scheme, mandatory for all employees but privately managed, and designed primarily to give contributors higher lump sum benefits than presently available under the 'CAP 30' and SSNIT pension scheme; and
- A third tier voluntary provident fund and personal pension schemes, supported by tax benefit incentives to provide additional funds for workers who want to make voluntary contributions to enhance their pension benefits and also for workers in the informal sector (SSNIT, 2009).

Act 766 of SSNIT mandates an employer to make a monthly contribution of thirteen percent (13%) of an employee's salary while the employee makes a contribution of five and a half percent (5.5%) making a total of eighteen point five percent (18.5%) as mandatory contribution to the scheme (SSNIT, 2009; Boon, 2007). The act also reduced the minimum contribution from 240 months to 180 months (SSNIT, 2009). Despite these reforms, 'CAP 30' has remained a non-contributory plan for the armed forces, the police, and the prisons service (Boon, 2007).

However, this scheme is bedevilled with a number of challenges; the National Population Council (2007) highlights them thus:

- Poverty is still the older person's trap because the schemes cover only a small percentage of the working population in Ghana.

- The amount offered to the majority of pensioners is too meagre to serve them adequately.
- There are a lot of bureaucracies associated with accessing the scheme on retirement as well as when increments are offered in the course of the year.
- Collecting pension from the banks is too burdensome to many older people in terms of distance and time spent with banking institutions.
- Pension is not adjusted regularly to meet the effects of inflation and therefore does not sustain the intended level of consumption of the elderly at the time of retirement.

National Health Insurance Scheme in Ghana

After Ghana attained independence in 1957, health services were provided free of medical charges in all public health institutions throughout the country (Boon, 2007; Aikins & Yevutsey, 2010). However, with time the increasing population led to the introduction of user fee through a cost-sharing mechanism at all public health facilities in 1969 (Aikins & Yevutsey, 2010; Blanchet, Fink & Osei-Akoto, 2012). The user fees brought many difficulties and as a result, the government had to initiate partial exemptions for health personnel, antenatal and postnatal services among others in 1985 (Apoya & Marriott, 2011).

The issue of cost-sharing on health care could not be sustained by succeeding governments and as a result subsidies were removed and later led to the introduction and implementation of the ‘cash and carry’ scheme in 1992 (Aikins & Yevutsey, 2010). Because of the growing difficulties associated with the ‘cash and carry’ system, the government expanded the base of exemptions in 1997 to cover children under five years old, people aged over 70 years and the poor (Apoya & Marriott, 2011).

As indicated earlier, the ‘cash and carry’ scheme had a negative impact on health care utilisation among Ghanaians and as a result, in some areas like Nkoranza and West Gonja districts, health insurance schemes had to be established (Durairaj *et al*., 2010; Mensah, Oppong, Bobi-Barimah, Frempong & Sabi, 2010). Particularly, Nkoranza District Health Financing Scheme was officially launched in 1992 in order to mitigate the hardship of people in seeking in-patient treatment (Soors, Devadasan, Durairaj & Criel, 2010; Fosu, Opoku-Asante & Adu-Gyamfi, 2014). The success of the Nkoranza scheme led to the establishment of the West Gonja District Health Insurance Scheme in the Northern Region in 1995 and several others across the country in subsequent years (Mensah *et al*., 2010).

Subsequently, the government of Ghana established the NHIS under the national health insurance Act, 2003 (Act 650) to reduce, if not eliminate, the phenomenon of ‘cash and carry’ among Ghanaians (Witter & Garshong, 2009; Blanchet *et al*., 2012). This social health insurance scheme has a broader spectrum to sharing risks across population groups (Witter & Garshong, 2009). According to Apoya and Marriott (2011), the national health insurance Act, 2003 sets out three distinct types of health insurance schemes in Ghana: district mutual health insurance schemes, private commercial health insurance schemes and private mutual health insurance schemes. Apoya and Marriott also add that the

National Health Insurance Authority (NHIA) which is a component of the Act 2003 is tasked to regulating the insurance schemes including their registrations, licensing, and supervision.

In relation to the District mutual health insurance schemes, District health insurance committees were set up to identify and categorise residents into four main social groups: the core poor or the indigent; the poor and very poor; the middle class; and the rich and very rich (Mensah *et al*., 2010; Blanchet *et al*., 2012). These categorisations are thought to have paved the way for the poor to pay less while the rich pay more for their health care (Durairaj *et al*., 2010). For instance, the official NHIA guidelines call for a range of premiums to be charged according to a person's income or wealth, ranging from GH¢ 7.2 for the 'very poor' to GH¢ 48 for the 'very rich' (Blanchet *et al*., 2012). The core poor, people who are aged 70 years and older, former SSNIT contributors who already are on retirement and children are exempted from paying any premiums (Mensah *et al*., 2010; Abiiro & McIntyre, 2013). These exemptions are introduced for vulnerable groups as part of an overall effort to address inequity in public health care delivery (Derbile & van der Geest, 2013). Still, older people's access to health care is limited because they are unable to pay for their medication (HelpAge International, 2008). Also, hospitals are mostly located in urban centres and are far from the rural areas where the majority of the aged still live (Mba, 2004).

Subscribers of the NHIS programme benefit from over 95% of disease conditions such as: outpatient attendance, inpatient care, deliveries, diagnostics, medicines, and all emergencies (Apoya & Marriott, 2011). Despite this, the NHIS package excludes some very expensive procedures such as certain surgeries, cancer treatments, organ transplants and dialysis (Blanchet *et al*., 2012). Further, Nguyen, Rajkotia and Wang (2011) argue that there has been serious delay in issuing cards for members. Nguyen *et al*. add that there is equally a delay in provider reimbursement which has resulted to lower quality of care received by insured patients compared to uninsured paying patients.

A study by Blanchet *et al*. (2012, p. 76) on “The effect of Ghana’s national health insurance scheme on health care utilisation” found a number of benefits that insured women had over their uninsured counterparts. In Accra in particular, women who enrolled in the insurance scheme were more in seeking formal care when sick, they had a larger number of prescriptions, and also, visited a clinic or hospital a number of times (Blanchet *et al*., 2012). Nevertheless, Derbile and van der Geest (2013) argue that health personnel abuse exemptible clients, particularly the poor, when they seek health care at the facility levels. Derbile and van der Geest also indicate that service providers are unfriendly, disrespectful, shout at clients and make embarrassing remarks about them. Besides, exemptible clients are unable to queue for a long time while waiting to be attended to at the health facility (HelpAge International, 2008).

The main sources of funds for the NHIS are: A value added tax on goods and services; a monthly deduction of 2.5 percent of the payroll from each formal sector worker’s contribution to the SSNIT pension fund; interest from investments made by the scheme; an annual premium contribution from all informal sector workers; and a registration fee paid by all NHIS subscribers (Blanchet *et al*., 2012; Abiiro & McIntyre, 2013).

Livelihood Empowerment Against Poverty Programme in Ghana

The LEAP programme is a social grant scheme established by the government of Ghana to provide financial security to the vulnerable in the Ghanaian society (Abebrese, 2011). The LEAP programme is grounded in the basic principles of the National Social Protection Strategy (NSPS) developed by the government of Ghana to empower poor and other vulnerable Ghanaians including the aged and children (Agyemang, Antwi & Abane, 2014). The LEAP programme started in 2008 and aims at reducing poverty by providing financial support for some categories of people including: orphan or vulnerable children; people aged 65 years and older; and people with disabilities (Abebrese, 2011; ILO, 2014b). This programme supports selected households with monthly cash transfer between 8 Ghana cedis and 15 Ghana cedis depending on the number of needy people living in the household (Abebrese, 2011).

The Ministry of Gender, Children and Social Protection has a selection criterion for LEAP beneficiaries (ILO, 2014b). The first stage involves the selection of districts with deprived communities (Agyemang *et al*., 2014; ILO, 2014b). In the second stage, local LEAP committees are formed and tasked to select poor households within these communities (ILO, 2014b). The third stage involves a proxy means test within these selected poor households and is ranked based upon the availability of older people, severely disabled persons or vulnerable children (Agyemang *et al*., 2014; ILO, 2014b). In the last stage, a community validation committee determines whether or not the selected households are among the most impoverished in their community (ILO, 2014b).

Households which benefit from the LEAP programme are bounded by certain conditions including: advancing children’s school enrolment and retention, registration of children at birth, ensuring that children are not engaged in worst forms of child labour, and enrolment of family members on the NHIS (Gbedemah, Jones & Pereznieto, 2010). Also, selected households are provided with a photo-ID beneficiary card that they have to present to collect their benefits through the Ghana Post Office (ILO, 2014b).

In a study in the Cape Coast Metropolis of Ghana, Agyemang *et al*. (2014) found a number of benefits that beneficiaries derived from the LEAP programme. The LEAP programme had enabled beneficiaries to meet their food and nutritional security needs. Also, Agyemang *et al*. found that beneficiaries of the LEAP programme were able to use some of the money to buy their clothes. Besides, the programme had been a major source of investment for the payment of their NHIS registration fees (Agyemang *et al*., 2014).

Despite its importance to the elderly people, there are still many challenges that the aged encounter in sustaining their livelihood (Mba, 2004). Beneficiaries are faced with a delay in the payment of monies (Jaha & Sika-Bright, 2015). Also, beneficiaries have difficulties in accessing the complementary services that they are entitled to, particularly the NHIS (Jaha & Sika-Bright, 2015). The transfer amount is not enough and does not provide beneficiaries with any significant financial independence (Gbedemah *et al*., 2010).

The District Assemblies' Common Fund in Ghana

The District Assemblies Common Fund (DACF) is basically a development fund designed to ensure a more equitable distribution of national resources for development in every part of the country (Republic of Ghana, 2014). The Republic of Ghana (2014) indicates that Article 252 of the constitution provides the legal basis for the establishment of the DACF to serve as a focal point for transferring resources from the central government to the local authorities in the Metropolitan, Municipal and District Assemblies (MMDAs). This Article mandates that at least 5.0 percent of Ghana's total national tax revenue be distributed among the various assemblies mainly for development projects (Republic of Ghana, 2014).

In 2007, the DACF Act (Act 455) was amended to increase the budgetary allocation from 5.0 percent to 7.5 percent of the total revenue of Ghana to the District Assemblies for their local level development (National Council on Persons with Disability [NCPWD] and GFD, 2010; Owusu-Mensah, 2015). This amendment equally catered for the increasing numbers of the MMDAs from 110 in 1994 to 170 in 2007 (Owusu-Mensah, 2015).

PWDs are allocated 2% of this DACF (NCPWD & GFD, 2010). There are two major aims of allocating the DACF for PWDs. One of them aims at minimising poverty among all PWDs particularly those outside the formal sector of employment (NCPWD & GFD, 2010; Owusu-Mensah, 2015). The other aims at enhancing PWDs' social image through dignified labour (NCPWD & GFD, 2010).

Certain guidelines outline the areas that the allocated 2.0 percent of the DACF should be used to support PWDs:

- Advocacy and awareness raising on the rights and responsibilities of PWDs.
- Strengthening organisations of PWDs at the local level.
- Training in employable skills/apprenticeship.
- Income generation activities.
- Some educational support for children, students and trainees with disability.
- Provision of technical aids, assistive devices, equipment and registration of NHIS (NCPWD & GFD, 2010; Tuggun, 2014).

According to Owusu-Mensah (2015), a number of benefits have been driven out of the DACF since its inception. In the first place, the DACF has created a room for the redistribution of income to the MMDAs (NCPWD & GFD, 2010). Also, because the DACF is supported by some legislative instruments, the MMDAs are provided with a considerable level of economic stability in planning and budgeting of programmes (NCPWD & GFD, 2010; Owusu-Mensah, 2015). Further, the DACF provides the opportunity for MMDAs to participate in intergovernmental decision-making processes (Owusu-Mensah, 2015). For instance, the MMDA members are able to actively deliberate and approve the budget for the disbursement of DACF (NCPWD & GFD, 2010; Owusu-Mensah, 2015).

Despite the benefits of the DACF, it has some challenges. One of such is the delays in the disbursement of the fund (Republic of Ghana, 2014). Again, a substantial portion of the fund is used by the MMDAs for recurrent expenditure which goes contrary to the objectives of the fund (NCPWD & GFD, 2010; Republic of Ghana, 2014). In addition, there are too many deductions ‘at source’ from the amounts meant for the MMDAs (Republic of Ghana, 2014).

Persons with Disabilities Organisations in Ghana

PWDs organisations in Ghana are formal social protection organisations formed in Ghana in order to ensure a unified front to enhance PWDs’ advocacy efforts for dignified living (Sackey, 2012; NCPWD, 2016a). This is because stigmatisation and discrimination against PWDs have been recognised as major human rights issues and needs to be redressed (Sackey, 2012). Some of these organisations are the National Council for PWDs in Ghana, the Ghana Federation of Disability organisation, and the Ghana Blind Union (Sackey, 2012; NCPWD, 2016a).

National Council for Persons with Disabilities in Ghana

The NCPWD is a state corporation established to formulate and implement policies to achieve equal opportunities for PWDs (NCPWD, 2016a). It was set up in November 2004 with a mission to promote and protect the human rights of PWDs to live descent livelihoods (NCPWD, 2016a). In its bid to reduce poverty among persons with severe disabilities, the NCPWD established a cash transfer programme known as Persons with Severe Disabilities Cash Transfer (PWSD-CT) for persons with severe disabilities (NCPWD, 2016a; NCPWD, 2016b). Under this programme a person with severe disabilities refers to an individual who needs permanent care including feeding, toiletry and protection from danger by other persons (NCPWD, 2016a). Because of the intensive support required by persons with severe disabilities, their caregivers are denied of any time to engage in income generating activities and this in turn worsen the economic situation of such households (NCPWD, 2016a; NCPWD, 2016b). In order to reduce this burden, the cash transfer programme aims at enhancing the capacities of the caregivers through cash transfers thereby improving the livelihoods of persons with severe disabilities (NCPWD, 2016b).

The eligibility criteria for the cash transfer programme include:

- Households that are categorised as extremely poor and vulnerable and have members with severe disabilities.
- Household is not enrolled in any other cash transfer programme.
- Registration with NCPWD.
- Proof of the requirements in the ranking criteria.
- Copy of National ID card or that of the guardian if the person is under 18 years (NCPWD, 2016b).

According to the NCPWD (2016b), the cash transfer programme was piloted in 2010 with 10 households per constituency and later scaled up to 70 households per constituency in 2012. The Council further states that, currently, the programme is targeting to provide cash transfers to 47,200 households and it is being implemented by the Department of Social Security and Services in collaboration with the NCPWD (NCPWD, 2016b).

In addition to the cash transfer programme, other achievements of the Council include:

- Implementation of persons with disability Act of Ghana, Act 715 of 2006.
- Inclusion of disability indicator in performance contracting guidelines which has forced public organisation to comply.
- Domestication of the convention of the rights of PWDs.
- Development of the national plan of action on accessibility for PWDs (Asante & Sasu, 2015; NCPWD, 2016b).

Ghana Federation of Disability Organisations

The Ghana Federation of Disability Organisations was previously known as the Ghana Federation of the Disabled (Ghana Federation of Disability Organizations [GFD], 2016). It has been stated that various PWDs organisations in Ghana have been operating as independent organisations, but the quest for a common front prompted the formation of the GFD in 1987 (Sackey, 2012). It is a civil society organisation which brings together organisations of PWDs in Ghana (GFD, 2016).

The founding organisations of the GFD are the Ghana Blind Union (GBU), the Ghana Society of the Physically Disabled (GSPD), and the Ghana National Association of the Deaf (GNAD) (Sackey, 2012; GFD, 2016). Currently, it has an additional membership of four organisations including Ghana Association of Persons with Albinism (GAPA), Mental Health Society of Ghana

(MEHSOG), Inclusion Ghana (IG) and Sharecare Ghana (GFD, 2016). However, it is important to state that while the GFD acts as an umbrella body to champion disability issues, every member organisation of the GFD remains autonomous, with its respective objectives (Sackey, 2012). Some of the objectives of the GFD are:

- To advance the common interest of PWDs.
- To promote the training, education, and employment of PWDs.
- To co-operate with other organisations having similar objectives.
- To serve as a pressure group on all matters affecting PWDs.
- To promote gender equality and the human rights of PWDs including children with disabilities, as enshrined in the constitution and the laws of Ghana, including the right to employment, education, transportation and health services.
- To promote PWDs access to services, activities, information and documentation (Ghana Federation of the Disabled [GFD], 2008).

In order for the GFD to achieve its set objectives, it has engaged in a number of activities (GFD, 2008; GFD, 2016). It has campaigned strongly for the rights of PWDs on their access to education, employment, health, economic welfare, recreation, justice, and information (GFD, 2016). For instance, in the 2004 elections, GFD worked with the electoral commission of Ghana and created awareness on inclusion of sign language interpretation on voter education on TV broadcasts and also made sure that members of GBU were trained on how to use the tactile ballot guide (JMK Consulting Research, 2008). Still on elections, in

2008, the GFD engaged the Ghana Journalist Association (GJA) for the inclusion of a disability reporting category into its annual awards and it has since 2009 been implemented (Sackey, 2012).

Also, the GFD facilitated the passage of the Persons with Disability Act, the Mental Health Act and the Ratification of the United Nations Convention on the Rights of Persons with Disability (GFD, 2016). Besides, the GFD has continuously worked to eliminate stigmatisation and promote the mainstreaming of gender and children with disability issues in national and international development (GFD, 2016). However, the GFD is challenged on the basis that it is reliant on external donor funding but it is exploring avenues for overcoming this constraint (Sackey, 2012).

Ghana Blind Union

The Ghana Blind Union is an organisation formed from a union of the Ghana Society for the Blind (GSB) and the Ghana Association of the Blind (Ghana Blind Union [GBU], 2013a). The GBU (2013a) indicates that the GSB was formed in 1951 while the Ghana Association of the Blind was established in 1963. The Ghana Association of the Blind was carved out of the GSB when blind persons decided that it was time for them to take their own destiny into their own hands (Ghana Association of the Blind [GAB], 2006; GBU, 2013a). Though these two organisations separated, their core aim was to provide services geared at allowing blind and partially sighted persons to lead lives of dignity, productivity and independence (GBU, 2013a).

In the course of time, specifically in April 2010, the two organisations came to consensus once again to merge into one unified and strong body that would ensure the provision of services and effective advocacy which will result to the total inclusion of the blind and partially sighted persons into every facet of the society (GBU, 2013a). The GBU has steadily increased in membership and now has a total membership of over 10,500 persons spread throughout the ten regions of Ghana (GBU, 2013a).

The GBU has initiated a number of activities intended to enhance the QOL of its members (GAB, 2006; GBU, 2013b). The GAB (2006) shows that one of such activities is the GBU Community-Based Rehabilitation (CBR) project supported by the Danish Association of the Blind (DAB). The CBR project was piloted in the Suhum-Kraboa-Coaltar District of the Eastern Region of Ghana for five years and was scaled up in a Mobile Community-Based Rehabilitation (MCBR) project which has been implemented in some districts (GAB, 2006; GBU, 2013b). The MCBR provides services including counselling, training and financial assistance to members of GBU (GAB, 2006).

Also, in order to promote the independence of the blind in relation to their mobility, the GBU has established White canes project (GBU, 2013b). The main aim of this project is to provide mobility training and white canes to members of the GBU (GBU, 2013b). Unfortunately, the GBU is not able to meet the cost of providing canes for all its members (GBU, 2013b). Although every blind person needs this essential mobility tool, most persons are unable to afford it because many PWDs are said to be among the poorest of the poor (JMK Consulting

Research, 2008; GBU, 2013b). Assistive devices such as wheelchair for example cost about GH¢220; clutches, about GH¢35; and calipers range between GH¢150-GH¢300 depending on the length (JMK Consulting Research, 2008; GBU, 2013c).

Non-Governmental Organisations for the Aged in Ghana

There are many Non-Governmental Organisations (NGOs) in Ghana; however, few of them target the aged population (Kwankye & Cofie, 2017). HelpAge International in particular began by caring for older refugees but later provided housing and accommodation for older people (Beer, 1994). As a result of the growing challenges of the aged in Ghana, HelpAge Ghana was formed in 1987 by a group of concerned Ghanaian citizens with the aim of providing support to the aged (Banga, 1993).

HelpAge Ghana is one of the main organisations that promote the welfare of older people in Ghana (HelpAge Ghana, 2018). Kwankye and Cofie (2017) have indicated that HelpAge Ghana is involved in creating public awareness on ageing related problems and the necessary precautions. Kwankye and Cofie added that this local NGO provides healthcare services such as community clinic / health screening, ophthalmic / eye care and purchase of prescribed drugs for poor older persons.

Care for Aged Foundation is another local NGO which provides support to the aged in Ghana. Care for Aged Foundation formally known as Akrowa Aged-Life Foundation is a local NGO which was founded by Collins-Woode (Care for Aged Foundation, 2018a). He originally went to Denmark in connection with his music career; however, he found acquaintance with the Danish health-care system for older people and was inspired to establish the Care for Aged Foundation in Ghana to support the elderly (Care for Aged Foundation, 2018a). Care for Aged Foundation supports over 400 vulnerable older people in six communities around Accra, the capital city of Ghana. This NGO also offers, 24 hour a day, 7 days a week live-in care home care assistance for older adults (Care for Aged Foundation, 2018b). The home-based services provided by this NGO include:

- Door to door medical assistance;
- Cooking and light housekeeping;
- Companionship and social activities;
- Bathing, dressing and grooming assistance;
- Transportation to doctors appointments;
- Shopping from supermarket and pharmacy;
- Status reporting to family;
- Medication reminders;
- Assisting with walking and transfer from bed to wheelchair;
- Moving around the house. Bathing, washing, dressing, cooking, and visiting the toilet;
- Combating social isolation, deprivation and loneliness; and
- Ambulance service (Care for Aged Foundation, 2018b).

Informal Social Protection System for the Aged in Ghana

The extended family system remains the basic informal social protection system in Ghana and Africa at large and it existed before the introduction of formal systems of social protection (Brown, 1992). Even in the United States of America, before formal social security systems and Medicare programmes came into existence, family members were the primary and often only source of support for disabled elderly people (Schulz & Martire, 2004). The extended family system served and continues to be a core social protection to the aged, the disabled, the sick, dependent widows and children in the Ghanaian community (Asare-Danso, 1997; Boon, 2007; Darteh *et al*., 2014).

These vulnerable groups turn first to their family members for help and when need be, they then outsource support from neighbours and finally to other benevolent agencies for support (Cantor, 1979; Nyuni, 2007). Social protection from the Ghanaian family is basic and wide, covering three or four generations either patrilineal or matrilineal and consists of grandparents, brothers and sisters and their children, and grandchildren (Brown, 1990). The extended family system abhors and encourages respect and solidarity among family members (Brown, 1992). For instance, the aged in the traditional societies were treated as repositories of experience and wisdom for which the younger generation could benefit (Kumari, 2001).

In many of the traditional communities in Ghana, the aged were seen as links between the community and their ancestors, therefore, individuals refrained from disregarding their authority so as to prevent the wrath of the ancestors (National Population Council, 2007). That is why Nyuni (2007) emphasises that one main characteristic of the traditional Ghanaian family is the subordination of the younger members to the older members of the family. This customary obligation is not only limited to Ghana but also in the Hindu tradition in India where the elderly are to be treated with veneration and respect irrespective of one’s class, caste and religion (Kumari, 2001).

There exists an exchange relationship between the aged the younger generation which reinforces an unceasing social protection among Ghanaian family members (Boon, 2007). For instance, family members provide food, clothing, errand services and psychological support to the aged (Brown, 1992; Nyuni, 2007). Generally, the aged in turn advice the adults and socialise their grandchildren (Boon, 2007; Mba, 2007a).

Besides, it has been established that in both developing and developed countries, the basic concerns of older people are household management and childcare so that younger adults can have ample time to engage in economic activities outside the home (WHO, 2002b). Further, in Ghana some of the elderly even contribute to the family by engaging in agricultural activities (Mba, 2007a).

The extended family system is equally characteristic of its co-residential living arrangements (Unanka, 2002). This involves living with spouse, children, grandchildren, sons-in-law, daughters-in-law, distant relatives and non-relatives (Mba, 2007b). Living arrangements are important with regard to older people because it determines the availability of social protection to them (Kinsella & Phillips, 2005). For instance, older people who co-reside with members of their extended family receive support in instrumental activities of daily living such as cooking, washing and sweeping particularly when they are trapped by disability (Zimmer & Dayton, 2003).

They also enjoy some level of prestige, honour and have authority over younger family members which promote their QOL (Mba, 2007a). These are the reasons why little attention is given to the institutionalisation of care giving for the elderly in Africa, because in most African countries, the family is still the largest social protection network for the aged (Unanka, 2002). In the contrary, multigenerational households have declined drastically in more developed countries as older people receive little support from their family and therefore prefer to reside in their own homes, even if that means living alone (Kinsella & Phillips, 2005).

In the Ghanaian context, even though the extended family system continues to be the reservoir of social protection to the aged, it is believed that the extended family system has changed with the spread of Christianity, formal education, and rural-urban migration (Brown, 1992; Unanka, 2002; Darteh *et al.*, 2014). Rural-urban migration in particular has been linked to a more pronounced solitary living among the aged in the three northern regions of Ghana thus Northern, Upper West and Upper East than the other seven administrative regions of the country (Mba, 2007a). Also, it has led to a decline in intergenerational wealth flows; and neglect of the elderly parents left behind due to migrants' inability to remit at home (Mba, 2007a; National Population Council, 2007).

An empirical study by Ackah and Medvedev (2010) suggest that among the three northern regions of Ghana, Upper West Region has a higher migration rate of 8 percent while that of Upper East and Northern Regions make up just 3 percent of their populations. Ackah and Medvedev add that only about 36 percent of internal migrants in Ghana send remittances back home and by implication, the sources of income for the elderly are destroyed. Besides, the reduction in agricultural production in the rural areas as a result of rural-urban migration makes the aged with disability poorer and vulnerable to food insecurity (Adaku, 2013).

Participation of the Aged in Society

The notion of participation is used widely but without a precise definition because it includes almost any situation in which some minimal amount of interaction takes place (Boyce & Lysack, 2000). In its social context, participation refers to the integration of older persons into social networks of family, friends, communities and the society as a whole (United Nations Economic Commission for Europe, 2009).

The participation of aged people in society may range from their involvement in economic development activities, formal and informal work, and voluntary activities based upon their individual needs, preferences and capacities (WHO, 2014c). For instance, older persons play important social roles in assisting their children, taking on care responsibilities and working as volunteers in the community (United Nations Economic Commission for Europe, 2009).

Participation of elderly people in social and economic activities is deemed to have strong bearing on their health and QOL (Ahmad & Hafeez, 2011). These activities may include inclusion of elderly persons in the planning, implementation and evaluation of social development initiatives and policies (WHO, 2014c). In Ghana for instance, some prominent citizens who have retired from active service in both public and private sectors have been appointed to membership of the Council of State, District Assemblies, Boards and Committees at both national and local levels (National Population Council, 2007).

The participation of older people in activities of the society is considered to be largely determined by various factors such as increased poverty levels, loss of spouse and physical decrements resulting from the onset of chronic ailments (WHO, 2004a; Ahmad & Hafeez, 2011). If older people become less mobile, they may be less able to visit their family members and friends (United Nations Economic Commission for Europe, 2009). The presence of chronic health conditions of the elderly result in disability which in turn might adversely affect their participation in social activities (Ahmad & Hafeez, 2011).

Assistive Devices and Human Assistance for Persons with Disabilities

The effects of disability means a lot to people with disability, in one perspective, it is a loss requiring counselling, in another, it is a challenge requiring support services, and yet in some other perspectives, it is a technical issue requiring assistive devices (Scott, 1969; Oliver, 1998). Disability among individuals particularly the aged requires two broad categories of assistance: Assistive devices; and human assistance (Bateni & Maki, 2005; Freedman, Martin, Cornman, Agree & Schoeni, 2005). Assistive devices on the one hand are equipment including wheelchairs, canes, walkers, and raised toilet seats which help the aged with disability in performing their activities (Hoenig, Taylor & Sloan, 2003; Bateni & Maki, 2005).

Table 1 shows some functional disabilities and their accompanying assistive devices. Promoting independence among people with disabilities through the use of assistive technology is one of the key programmes and policies in America, beginning with the passage of the Americans with Disabilities Act up to President Bush's "New Freedom Initiative." (Freedman *et al*., 2005, p. 3).

Table 1: Functional Disability and Assistive Devices

Functional disability related to:		Assistive devices:
Movement	i.	Walking sticks
	ii.	Walking frames
	iii.	Wheelchairs
	iv.	Crutches
Vision	i.	Optical glasses
	ii.	Large clocks
	iii.	Talking books
	iv.	Braille output devices
	v.	Talking watches
Anatomy	i.	Neck braces
	ii.	Hand braces
	iii.	Arm braces
	iv.	Leg braces
	v.	Knee braces

Source: Mann (2004); Bateni & Maki (2005)

As people grow older and developing age-related health conditions, they need an increasing amount of assistance with their personal and domestic activities (Access Economics, 2010). Therefore, assistive devices are often required by the aged with disability to support them move about independently and maintain their balance (Bateni & Maki, 2005). These devices can potentially compensate for disability and lessen handicap which in effect will improve the QOL of the aged with disability (Edwards & Jones, 1998).

For instance, if a person uses a hearing aid, its immediate benefit is that it will improve that person's hearing, and subsequently serve as a mechanism that assist the person to participate in conversations, attend meetings, and listen to music (Mann, 2004). Assistive devices appear to be important in helping to ensure for declines in dependence on human assistance for walking, particularly for the aged with disability (Freedman, Agree, Martin & Cornman, 2005).

Despite the fact that assistive devices help PWDs to increase their mobility and life opportunities, PWDs in Ghana purchase them from the open market at a very high cost and as a result, few of the PWDs are able to afford these devices (JMK Consulting Research, 2008). According to the GBU (2013b), out of a total registered membership of 321 in greater Accra, 55 percent of them do not have mobility canes. Also, in the eastern region, out of their total membership of 751 about 58.4 percent of them do not have these mobility canes. There are no policies at both national and district levels which oblige the district assemblies to provide assistive devices for unemployed PWDs (JMK Consulting Research, 2008).

Human assistance, on the other hand, is the help that disabled persons receive from other people including, spouses, children, friends, neighbours and paid caregivers (Hoenig *et al*., 2003). Therefore, assistive devices reduce disability burden on caregivers' particularly family members because these devices do not require the cooperation of another person to increase the functional capacity of the aged with disability (Agree, 1999). Freedman *et al*. (2005), in a study in America, found that among older Americans who initially relied on human assistance, their subsequent use of assisted devices increased their independence and hence, offsetting the use of human assistance.

It has been argued that assistance from caregivers does not enable people with disability to function more independently, but it may reduce the difficulty experienced in performing a given task (Hoenig *et al*., 2003). That is why disability policies specifically target the removal of environmental barriers and increase access to assistive and universally designed technologies for people with disabilities (Freedman *et al*., 2005).

Human assistance and assistive devices may not be the same in terms of the degree at which they reduce disability (Agree, 1999). Assistive devices and human assistance complement each other concerning the care for people with disability, because each of them could be used for one task or the other but might not be used for all the tasks all the time (Hoenig *et al*., 2003).

Quality of Life of the Aged

At the global level, QOL among the aged is an important area of concern which reflects the health status and well-being of this vulnerable population

(Kumar, Majumdar & Pavithra, 2014). Divergent findings are held by researchers in QOL of the aged around the world (Klima, Janiszewska & Mordwa, 2014). QOL of the aged is influenced by a number of factors including their health condition, age and environment (Klima *et al*., 2014). Sugiyama and Thompson (2006) in their study assert that going outdoors is often difficult for older people due to increasing frailty and environmental barriers. However, a neighbourhood environment facilitating older people's outdoor activities has a positive effect on their psychological and physiological QOL (Sugiyama & Thompson, 2006). In line with this view, Tiraphat, Peltzer, Thamma-Aphiphol and Suthisukon (2017) in their study found that older people who perceived a high level of age-friendliness in their neighbourhoods were more likely to have better QOL than older adults who perceived low levels of age-friendliness in their neighbourhood.

In another perspective, Ahmmad and Islam (2014) established that disability had devastating effects on the QOL of disabled people by jeopardizing their personal, family and social life. A study by Čanković *et al*. (2016) suggests that disability is a relevant determinant in individuals QOL, whereas educational and marital statuses do not reflect on their physical health, psychological and environmental domains of QOL. Kumar *et al*. (2014) found that age independently influenced the QOL of older people. Kumar *et al*. again found that educational status, type of family and marital status of older people had influence on their QOL. However, Khaje-Bishak, Payahoo, Pourghasem and Jafarabadi (2014) demonstrated in their study that the QOL of the respondents was not significantly different in respect to their age. In another study, Brajković, Godan and Godan (2009) discovered that QOL of the elderly in a nursing home was significantly higher than that of their peers living in their own homes.

Furthermore, Gholami *et al*. (2016) found that, the highest and lowest QOL of the respondents were observed in the social relationship and the physical health domains respectively. Similarly, Khan, Mondal, Hoque, Islam and Shahiduzzaman (2014) in their study found that, the highest QOL score of the respondents was found in their social relationship domain and the least found in environmental domain. Khan *et al*. (2014) also established that aged males had higher QOL in all the domains.

Besides, Cheraghi, Doosti-Irani, Nedjat, Cheraghi and Nedjat (2016) observed that aged men had a better status in the psychological domain in relation to aged women. In a study, Raj, Swain and Pedgaonkar (2014) revealed that even though the majority of the aged had an average QOL, males had a better QOL than females. Thadathil, Jose and Varghese (2015) study portrayed that the aged had better QOL score in physical health domain compared to other domains.

It is evidenced that the socio-demographic variables considered in each of these empirical studies are based on the context of the study. Therefore, the socio-demographic variables considered in assessing the QOL of the aged with disability in this study were sex, age, marital status, level of education, type of disability, and living arrangement.

Summary

This chapter discussed issues on global population ageing and ageing policy in Ghana. Also, it looked at the disability trend in Ghana. Besides, literature was reviewed on persons with disability Act, 2006 Act 715 of Ghana. This Act is captured in broad sections such as rights of PWDs, employment of PWDs, education of PWDs, transportation of PWDs, health-care and facilities for PWDs, miscellaneous provisions for PWDs, establishment and functions of a National Council on PWDs, and administrative and financial provisions of PWDs.

Further, social exclusion of Persons with Disabilities (PWDs) in Ghana, and social protection programmes for the aged and PWDs were covered in this chapter. Furthermore, other issues such as PWDs organisations, Non-Governmental Organisations (NGOs) for the aged in Ghana, participation of the aged in society, assistive devices and human assistance for PWDs, and QOL of the aged were presented.

CHAPTER FOUR

RESEARCH METHODS

Introduction

This chapter discusses the research philosophy, research design, study area, study population, sample size, and sampling procedure. Also, data collection instruments, training of field assistants, pre-testing of instruments, data collection procedures, challenges encountered on the field, ethical issues and data processing and analyses are presented.

Research Philosophy

There are many philosophical paradigms including positivism, post-positivism, interpretivist and pragmatism which underpin social science research (Creswell, 2003; Uddin & Hamiduzzaman, 2009; Bhattacherjee, 2012). The main thrust of positivist paradigm is that reality is objective and discovering this objectivity enables researchers to describe, predict and control social phenomena (Sarantakos, 2005; Tuli, 2010). Positivist research thrives on quantitative methodology which employs standardised measures in data collection, analysis and hypothesis testing (Bhattacherjee, 2012). Further, post-positivism philosophical paradigm builds upon the principles of positivism with emphasis on quality of social research (Uddin & Hamiduzzaman, 2009). In this regard, post-positivist research principles focus on the creation of new knowledge and how this knowledge could promote change in society (Creswell, 2003).

By contrast, the interpretivist paradigm aims at understanding social phenomenon by discovering the meanings human beings attribute to their behaviour and the external world (Porta & Keating, 2008). Interpretivists relate to the fact that science and other aspects of social life such as religion, tradition and family systems have different discourse features; each adopts a different approach to constructing knowledge (Nudzor, 2009). Interpretivist research uses qualitative methodology and relies mostly on non-numeric data collection methods such as interviews and observations (Bhattacherjee, 2012).

Further, pragmatism philosophical paradigm draws its principles from both quantitative and qualitative methodologies (Pansiri, 2005; Morgan, 2007). This paradigm allows for the combination of methods from both quantitative and qualitative methodologies in research (Morgan, 2007; Nudzor, 2009).

Quantitative methodology tends to focus on ways of describing and understanding reality through counts and measures of a phenomenon (Berg, 2001; Hancock, Windridge & Ockleford, 2009). This methodology is characterised by positivists' principles (Sarantakos, 2005). Further, quantitative methodology employs a planned and constructed design which guides the research process prior to the commencement of the research (Sarantakos, 2005; Hancock *et al*., 2009). The focus of this methodology is on standardised data collection, statistical analysis and hypothesis testing which result in objective explanation, confirmation or refutation and prediction of a phenomenon (Kumar, 1999; Johnson & Onwuegbuzie, 2004). Quantitative methodology holds on to the principle that empirical facts exist apart from personal ideas or thoughts (Tuli, 2010). Again, it discourages subjectivity in the process of social research and as a result it has the ability to make correct predictions (Sarantakos, 2005).

Despite the objectivity of quantitative methodology, its principle on value free research is criticised based on the fact that researchers are part of society and their values, experiences and motives directly or indirectly influence their research (Marshall, 2006). Also, quantitative principles fail to prove that there are no abstract ideas, laws and principles (Uddin & Hamiduzzaman, 2009).

On the other hand, qualitative methodology tries to unearth unquantifiable facts about people, events and things from research participants (Berg, 2001). This school of thought unlike the quantitative methodology argues that certain experiences cannot be meaningfully expressed by numbers (Berg, 2001). As a result, qualitative methodology seeks to understand values, beliefs, and meanings of social phenomena, thereby obtaining a deep and sympathetic understanding of human experiences (Pansiri, 2005; Tuli, 2010).

Nevertheless, some criticisms have been levelled against the qualitative methodology. For instance, sample sizes are basically small and might not be representative of the broader population, therefore, makes it so difficult for findings to be generalised (Patton & Cochran, 2002). Also, qualitative findings sometimes lack rigor (Pansiri, 2005; Morgan, 2007). Again, it is difficult to tell how far the findings are biased by the researcher's own opinions (Patton & Cochran, 2002).

Drawing from the weaknesses of both quantitative and qualitative methodologies, the pragmatism philosophical paradigm was found to be suitable to guide this study. Pragmatism research philosophy yields better research insights because of its potential of allowing the mixing of methods from both quantitative and qualitative methodologies (Pansiri, 2005). Also, the lapses in the quantitative methods are compensated by the strengths of the qualitative methods and vice versa (Sarantakos, 2005). Again, the use of mixed methods approach yields more valid and reliable results than single methods (Sarantakos, 2005). Besides, it provides stronger evidence for a conclusion to be drawn through convergence and corroboration of findings (Johnson & Onwuegbuzie, 2004).

Research Design

Authors in social science research have identified a number of research designs such as longitudinal design, case study design, comparative design, and cross-sectional design (Sarantakos, 2005; Nudzor, 2009; Creswell, 2012). In a longitudinal design, a researcher surveys the same sample on more than one occasion (Sarantakos, 2005; Creswell, 2012). The longitudinal design is normally used to determine social change over time (Sarantakos, 2005). The case study design deals with detailed and intensive analysis of one case in a study (Creswell, 2012). For instance, a detailed study could be conducted on a specific person, event, or organisation and this often involves qualitative research (Bhattacherjee, 2012).

Further, comparative design uses the same methods to compare two or more meaningfully contrasting cases (Fraenkel, Wallen & Hyun, 2012). This design is often used in studies involving cross-cultural comparisons (Fraenkel *et al.,* 2012). Furthermore, in cross-sectional design, data is collected from either the entire population or a subset of the population at one point in time (Creswell, 2012).

Though a number of research designs are used in social science research, the objective of a study will best determine its suitable research design (Creswell, 2003; Creswell, 2012). In this regard, the cross-sectional design was employed to assess the perceived QOL of the aged with disability in the Upper West Region of Ghana. This design allowed for the collection of data from a large number of respondents within a short period of time (Creswell, 2003; Creswell, 2012).

Furthermore, the cross-sectional design permitted the participants to be interviewed only once. In addition, within this design, the convergent parallel method was incorporated in data collection. The convergent parallel method involves the collection and analysis of both quantitative and qualitative data concurrently in a single study (Borrego, Douglas & Amelink, 2009; Creswell, 2012). In this study, the convergent parallel method made it possible for quantitative and qualitative data to be collected through the use of the WHOQOL-BREF questionnaire, In-Depth Interviews (IDIs) and Focus Group Discussions (FGDs) guides (WHO, 1996; Borrego *et al*., 2009).

Study Area

According to the Ghana Statistical Service (2013c), the Upper West Region shares borders to the north with Burkina Faso, to the east with the Upper East Region, to the south with the Northern Region and with Côte d‟Ivoire to the west (Figure 5). This Region has a total population of 702,110 with aged population of 58, 977 and disability population of 25,746 (Ghana Statistical Service, 2013a; Ghana Statistical Service, 2013b). One of the main reasons for choosing the Upper West Region is that it has 3.7% of its population with some form of disability which is more than the national average of 3.0 percent (Ghana Statistical Service, 2012). Despite this, the Volta Region has the highest proportion of disability (4.3%), followed by the Upper East Region with 3.8 percent (Ghana Statistical Service, 2012).

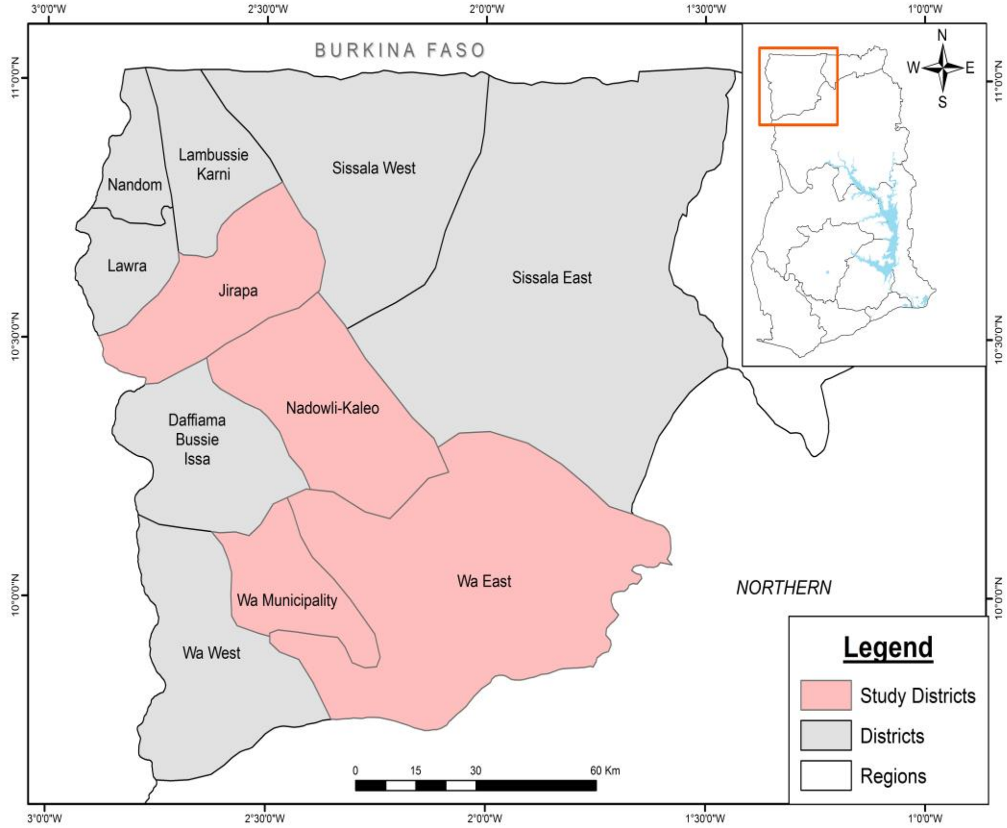

***Figure* 5: Map of the Upper West Region showing study Districts**

Source: Cartography and Remote Sensing Unit of the Department of Geography and Regional Planning, University of Cape Coast (2016).

The Upper West Region has the highest incidence of poverty (70.7%) amongst the ten administrative regions of Ghana compared with five in every ten in the Northern Region (50.4%) and four in every ten persons (44.4%) in the Upper East Region (Osei, 2011; Ghana Statistical Service, 2014a). Still, in terms of extreme poverty incidence, Upper West Region is the highest with 45.1 percent, followed by Northern Region (22.8%) and Upper East Region of 21.3 percent (Ghana Statistical Service, 2014a). Based on this, Mont (2007) argues that disability and poverty are interconnected. Poverty can cause disability among individuals with its associated malnutrition, poor health services, poor sanitation and unsafe living conditions (Mont, 2007; WHO, 2011). In the same way, the presence of a disability can make people poor because of the barriers disabled people face in taking part in many socio-economic activities that concern their lives (Mont, 2007; Kwankye, 2013). Besides, it has been established that disabled persons in developing countries are classified among the poorest of the poor (Inclusion Ghana, 2011).

Another reason for the choice of the Upper West Region as the study area is that it has the highest proportion of rural population of 83.7 percent and it has been established that more than half (54%) of the aged population in Ghana reside in rural areas (Ghana Statistical Service, 2012; Ghana Statistical Service, 2013a). The concentration of aged population in rural areas coupled with out-migration of young people from these areas to urban centres for greener pastures leaves older people isolated with little means of support (WHO, 2002b). There is evidence that only about 36 percent of internal migrants in Ghana send remittances back home (Ackah & Medvedev, 2010). These low remittances make the rural aged to continue experiencing deepening poverty, discrimination and abuse (HelpAge International, 2008). In addition, the prevalence of non-communicable diseases among the older populations in rural areas is higher in relation to that of the urban centres (Kwankye, 2013).

The Wa Municipality, Nadowli-Kaleo, Jirapa and Wa East districts of the Upper West Region were specifically chosen for the study (Figure 5). The basis for this choice was that these districts had available data on people living with disability. Besides, the rationale for the choice of these districts was to have a large number of respondents and enough data set so as to maximise the quality of the results. Table 2 shows the sex distribution of the aged living with visual and physical disability in the districts.

Table 2: Sex Distribution of the Aged with Visual and Physical Disability in the Wa Municipality, Nadowli-Kaleo District, Jirapa District and Wa East District

	Visual disability		Physical disability		
Study Districts	Male	Female	Male	Female	Total
Wa Municipality	78	80	71	121	350
Nadowli-Kaleo	64	70	37	45	216
Jirapa	38	47	42	73	200
Wa East	48	64	30	42	184
Total	228	261	180	281	950

Source: Wa Municipal Assembly (2015); Nadowli-Kaleo District Assembly (2015); Jirapa District Assembly (2015); Wa East District Assembly (2015).

Among these four areas, the Jirapa District has the highest number of people living with all kinds of disabilities (3,390), followed by Nadowli-Kaleo District (2,824), Wa Municipality (2,788) and Wa East District (2,783) respectively (Ghana Statistical Service, 2014b ; Ghana Statistical Service, 2014c; Ghana Statistical Service, 2014d; Ghana Statistical Service, 2014e).

The Wa Municipality

The Wa Municipality which was initially Wa District was upgraded to its current status as a municipality in 2004 with a Legislative Instrument (LI) 1800. The capital of the municipality is Wa, which also serves as the Regional capital of the Upper West Region. The Wa Municipality shares administrative boundaries with Nadowli-Kaleo District to the north, Wa East District to the east, and to the west and the south with Wa West District and has a landmass of about 579.86 km² (Ghana Statistical Service, 2014d).

Physical Characteristics

The topography of the Wa Municipality is generally undulating with an average height between 160m and 300m above sea level. It has a number of streams which often dry up in the dry season. The two main drainage systems in the capital are the Sing-Bakpong and its tributaries to the south and Billi and its tributaries to the north (Ghana Statistical Service, 2014d).

Geologically, the Municipality is predominantly underlain by rocks such as pre-cambrian, granite and metamorphic. These rocks have well-developed fracture systems which enhance the drilling of boreholes in the Municipality. The area is characterised by two main types of soil which are laterite and savannah ochrosols (Ghana Statistical Service, 2014d).

The Wa Municipality is characterised by two main climatic conditions; rainy season and dry season. During the rainy season, most of the rainfall occurs between June and September. The mean annual rainfall varies between 840mm and 1400mm. On the other hand, the dry season occurs between November and March (Ghana Statistical Service, 2014d). The vegetative cover is that of the guinea savannah grassland type which has short trees with grass ground cover during the rainy season. The most common trees include shea, dawadawa, kapok and baobab. There are other exotic trees like mango and cashew which flourish well in this area (Ghana Statistical Service, 2014d).

Demographic and Socio-cultural Characteristics

The total population of the Wa Municipality is 107,214 and out of this, males are 52,996 (49.74%) while females constitute 54,218 (50.6%) with a sex ratio of 97.7 percent. The dependency ratio of the Wa Municipality is 65.1 percent; however, the dependency ratio in the rural localities is higher (77.5%) than urban localities of 59.4 percent (Ghana Statistical Service, 2014d).

As initially indicated, there are 2,788 persons with some form of disability which constitute about 2.6 percent of the population of the municipality. Among this group, equal proportions of both male and female in the population suffer disability. Persons with emotional disability are the highest (22.8%) followed by sight (18.2%), other (16.2%) and physical of 13.1 percent (Ghana Statistical Service, 2014d). On the basis of education and literacy among those with disability aged 3 years and older, about 41.9 percent had never attended school, those with pre-school level account for 5.9 percent, basic school represents 36.1 percent and those in senior high/higher accounts for 16.1 percent (Ghana Statistical Service, 2014d).

There are many ethnic groups in the municipality but the major ethnic groups are the Waalas, Dagaabas and the Sissalas. There have been considerable inter-marriages between these ethnic groups which bring about peaceful co-existence. Three main religions are found in the municipality, Islam (65.9%), Christianity (29.0%) and Traditional Religion (4.1%). However, the adoption of Islam by the Waalas, on one hand and Christianity by the Dagaabas, on the other hand remains a factor of valued difference between the two groups (Ghana Statistical Service, 2014d).

Economic Activities

The service sector employs about 51.3 percent of the working population, agriculture 30.2 percent and industry 18.4 percent. The services sector which employs the majority of the working population (51.3%) includes education, health, telecommunication, banking, security, transportation, repair of motor vehicles and motorcycles, accommodation and food service activities (Ghana Statistical Service, 2014d).

Under the agriculture sector, most of the farmers are engaged in peasant farming and the main crops cultivated include millet, sorghum, maize, rice, cowpea and groundnut. However, soya beans, groundnuts, bambara beans are produced as cash crops. Economic trees within the municipality include sheanuts, dawadawa, mango, baobab and teak among others. Again, farmers engage in rearing of animals and poultry like goats, sheep, cattle and guinea fowls (Ghana Statistical Service, 2014d).

Health and Transportation Facilities

The Wa Municipality has three hospitals, seven health centres and eight clinics which provide health services including clinical care, reproductive and child health, nutrition, immunisation and disease control (Ghana Health Service, 2017). Though some of the roads in the municipality are tarred, most of them are feeder roads and are in bad condition, hence, makes accessibility to health care facilities difficult. The means of transport in this area are lorries, buses, motorcycles, tricycles, bicycles and rarely donkey carts (Ghana Health Service, 2017).

The Nadowli -Kaleo District

The Nadowli-Kaleo District was carved out of the then Nadowli District in June, 2012 under a Legislative Instrument (L.I) 2101 with Nadowli as its capital. It is bordered to the south by Wa Municipality, west by Burkina Faso, north by Jirapa and Lambussie-Karni Districts, and to the east by the Daffiama-Bussie-Issa District. The Nadowli-Kaleo District with a land mass of 1,132.02 km^2 extends from the Billi Bridge (4km from WA) to the Dapuori Bridge (almost 12km from Jirapa) on the main Wa-Jirapa-Hamile road. Again, from the west to east, it extends from the Black Volta to Daffiama (Ghana Statistical Service, 2014c).

Physical Characteristics

The land of the district is generally low lying but gently undulating at altitudes ranging between 150m-300m above sea level though some parts have average of 600m. There is one major stream, the Bakpong and several ephemeral streams, which flow into the Black Volta (Ghana Statistical Service, 2014c).

There are three main types of rocks which underlie the district. These rocks are Birimian and Granite which are underlain to the west and some parts of the east; and Basement complex to the east of the District. The Birimian rock is known to have traces of gold and also hold a considerable quantity of water, which can readily be developed for use in drilling of boreholes and sinking of wells. The soil types in the district are laterite, sandy and sandy loam (Ghana Statistical Service, 2014c).

The district has a mean annual temperature of 32°C and a mean monthly temperature ranging between 36°C in March to 27°C in August. Mean annual rainfall is about 1100mm with its peak in August. Between October and March there is a long dry season which is associated with the dry north-eastern harmattan winds. Relative humidity is between 70 and 90 percent during the rainy season but is as low as 20 percent during the long dry season (Ghana Statistical Service, 2014c).

The vegetative cover is characterised by shrubs and grassland with scattered medium sized trees. Some of the economic trees found in the District are kapok, shea, baobab, mango and dawadawa (Ghana Statistical Service, 2014c).

Demographic and Socio-cultural Characteristics

The total population of the district (61,561) is 46.71 percent male and 53.29 percent female. The age group 10-14 years has the highest population representing 14.0 percent and age group 95-99 years constitutes the least population (0.1%). The age dependency ratio of the district is 92.4 percent. The District accounts for 8.8 percent of the population in the Upper West Region (Ghana Statistical Service, 2014c). Out of a total population of 2,762 people with various forms of disabilities who are aged three years and older, the majority (63.2%) of them never attended school (Ghana Statistical Service, 2014c).

As indicated earlier, out of its total population (61,561), 2,824 have at least one form of disability or the other. Among the people with disability, there are 46.2 percent males and 53.7 percent females. In terms of specific disabilities, sight related disability is about 39.3 percent followed by physical disability of about 23.1 percent (Ghana Statistical Service, 2014c).

Economic Activities

The district has a typical rural economy dominated by the agricultural sector (85.0%) followed by commerce/service (14.0%) and industry (1.0%). Food crop production in the district is largely on subsistence basis and characterised by low output levels. The main food and cash crops produced are maize, millet, sorghum, rice, groundnuts and soyabeans. Tree cropping is also done particularly mangoes and cashew. Again, livestock production is equally on subsistence basis and serves as a complement to crop production (Ghana Statistical Service, 2014c).

The commerce/service sector which is the second largest employer of the district's labour force after agriculture involves a wide range of tertiary activities. These include retailing and petty trading, transport and financial services, and services provided by civil servants. The commerce/service is dominated by informal small scale trading, especially in agricultural produce (Ghana Statistical Service, 2014c).

The industry sector which is the least employer of the labour force is characterised by small-scale activities and the use of labour intensive production technology. These include basketry, cloth/smock weaving, blacksmithing, gold mining by Azumah Resources Ghana Limited, pito brewing, pottery and shea butter extraction (Ghana Statistical Service, 2014c).

Health and Transportation Facilities

The Nadowli-Kaleo District has 25 community-based health planning and services strategy, 10 health centres and two hospitals (Nadowli-Kaleo District Assembly, 2016). Health services such as clinical care, reproductive and child health, nutrition, immunisation and disease control services are delivered by the district health management teams (Ghana Health Service, 2017). Despite these health services, poor conditions and lack of access roads to communities hinder health care delivery in this district (Nadowli-Kaleo District Assembly, 2016).

The Jirapa District

The Jirapa District like the other districts in this study was carved out of the then Jirapa-Lambussie District in 2007 by a Legislative Instrument (LI) 1902. The District is located in the north western corner of the Upper West Region of

Ghana. It lies approximately between latitudes 10.25° and 11.00° North and longitudes 20.25° and 20.40° West. The Jirapa District covers a total area of 1,667 square kilometers representing about nine percent (9%) of the Upper West Region's area of 18,476 square kilometres (Ghana Statistical Service, 2014b).

The Jirapa District is bordered to the south by the Nadowli-Kaleo District, to the north by the Lambussie-Karni District, to the West by Lawra District and to the east by the Sissala West District. Jirapa which is the district capital is 62 km away from Wa, the regional capital (Ghana Statistical Service, 2014b).

Physical Characteristics

Topographically, the landscape of the district is generally flat and low-lying with an average height of 300 meters above sea level. There are few plateau surfaces ranging between 1,000-1,150 feet and are found in Yagha and Jirapa areas. The district is not well drained as no major rivers are found except the intermittent tributaries of the Black Volta River. These are Kaabaa around Ullo, Bakpong near Baazu, Dazugri in Jirapa and Telenbe at Tizza. In the long dry season, these tributaries dry up leaving the district with no surface water catchment for domestic and agricultural purposes (Ghana Statistical Service, 2014b).

There is an extensive Birimanian formation consisting of granite rocks that store considerable quantities of ground water for borehole development. The predominant soil in the district is sandy loam with underlying hard iron pans. There are however, narrow strips of alluvial soils along the numerous dry valleys of the tributaries of the Black Volta River (Ghana Statistical Service, 2014b; Ghanadistricts.com).

The district is situated in the tropical continental climatic zone with mean-annual temperature ranging between 28ºC to 31ºC. It experiences a single rainy season which starts in June and ends in October giving way to a long dry season from November to May. Rainfall pattern is erratic and varies from year to year resulting sometimes in intermittent droughts and floods. Generally, the annual rainfall ranges between 900-1,100mm (Ghana Statistical Service, 2014b; Ghanadistricts.com).

The vegetation of the district is generally the Guinea Savanna woodland with light undergrowth and scattered medium sized trees. The major trees in this vegetative zone are shea, dawadawa, baobab and neem trees (Ghana Statistical Service, 2014b; Ghanadistricts.com).

Demographic and Socio-cultural Characteristics

The Jirapa District has a total population of 88,402 comprising 41,592 males (47%) and 46,810 females (53%). The sex ratio for the District is about 88.9 percent which means that the total population is made up of a higher number of females than males. Out of the total population, persons between the ages of 5-9 years constitute the highest proportion (14.8%) than any other age groups. The median age for the population is 18.0 with an age dependency ratio of 99.0 percent (Jirapa District Assembly, 2013; Ghana Statistical Service, 2014b).

There are 3,390 persons (3.8%) affected by at least one form of disability or the other of the total population of the district. Among the total population with disability, females constitute a majority (52.5%) compared to males (47.5%). Persons with sight disability constitute a larger percentage (24.0%) followed by physical (17.0%) and others with 15.0 percent (Ghana Statistical Service, 2014b). In relation to the educational level among the people with various forms of disabilities aged three years and older, a large percentage (65.7%) of them never attended school (Ghana Statistical Service, 2014b).

The Dagaaba (99.5%) who are the indigenous people are the main ethnic group and constitute the Jirapa Paramouncy with nine (9) divisional areas. There are three main religious groups namely, Christianity (65.9%), Traditional Religion (18.8%) and Islam which is 10.4 percent (Jirapa District Assembly, 2013; Ghana Statistical Service, 2014b).

Economic Activities

The district's economy is characterised by agricultural activities, services, agro-processing and other small scale manufacturing activities. Agriculture remains the main economic activity (67.1%) in the District which is largely subsistent in nature. Cash crops cultivated in the District are cotton, groundnuts and cashew. The rearing of cattle, sheep, goats, pigs and poultry are mainly produced as a supplement to crop farming (Ghana Statistical Service, 2014b).

There are two main financial institutions in the district: the Sonzele Rural Bank Ltd established in 1983 with an agency in Han and the St. Joseph's Credit Union also situated in Jirapa. These two financial institutions play very important economic roles by granting credit facilities to customers, small-scale business operators and farmers. The district has four communication networks which are

Mobile Telephone Networks (MTN), Vodafone, Airtel and Tigo which enhance communication and mobile money transfer services (Ghana Statistical Service, 2014b).

There are small-scale manufacturing and agro processing industries covering shea butter and dawadawa extraction, basket and pottery making, carpentry, masonry, pito brewing, blacksmithing and bed making. In relation to the employment status among the people with disability aged 15 years and older, 53.8 percent are employed, 1.6 percent are unemployed and 44.6 are economically inactive. Among the female, 51.0 percent are employed, 2.0 percent are unemployed and 47.0 percent economically inactive (Ghana Statistical Service, 2014b).

Health and Transportation Facilities

The Jirapa District has 18 community-based health planning and services strategy, seven health centers and a hospital (Jirapa District Assembly, 2016). Notwithstanding the availability of these health facilities and services, financial and other socio-cultural factors are hindrances in accessing health services (Ghana Health Service, 2017). Besides, the roads are poorly developed; almost all of them in the district are classified as feeder roads except the Jirapa-Duori, Jirapa-Nadowli and Jirapa-Domwmine highways (Jirapa District Assembly, 2016).

The Wa East District

The Wa East District was also carved out of the former Wa district under a Legislative Instrument (L.I) 1746 in July, 2004. The district is located in the south eastern part of the Upper West Region. The district capital is Funsi which is about

115km away from Wa, the regional capital. The district shares boundaries with West Mamprusi to the northwest, West Gonja to the southeast and the Sissala East district to the north. It has a landmass of about 4297.1sq/km², which is located between latitudes 9º 55"N and 10º 25"N and longitude 1º 10"W and 2º 5"W. The remoteness of the district relative to other districts of the region has deprived it of basic social and economic infrastructure and services (Ghana Statistical Service, 2014e).

Physical Characteristics

The land is generally undulating with height between 180-1300m above sea level. Drainage in the district is the dendrite type, dominated by the Kulpawn River and its tributaries. Most of the rivers overflow their banks during the rainy season and render most parts of the district inaccessible during this period (Ghana Statistical Service, 2014e).

The district consists mainly of igneous and metamorphic rocks and they are noted for deposits of gold, iron and bauxite. Illegal mining activities are therefore taking place in communities such as Bulenga, Duu, Joanfian and Danyokura. The soils are mainly sandy loam which is very fertile and suitable for the cultivation of tubers, cereals and legumes (Ghana Statistical Service, 2014e).

The climate is tropical equatorial, which prevails throughout the northern part of Ghana. Temperatures are high as 42ºC in March and April and as low as 22ºC in December and January. The district is characterised by Harmattan with its cold, dry dusty wind and occasional haze from November to April. The district has a single rainfall regime from May to October. The average annual rainfall is about 1,200mm per year and they are torrential, erratic and stormy (Ghana Statistical Service, 2014e).

The vegetation is made up of scattered trees, shrubs and grasses of varying heights. The common trees in the district include shea, baobab, kapok, dawadawa, acacia, neem, ebony, mangoes, cashew and acheapple. The district is also blessed with the Ambalaara Forest Reserve, which has various species of animals, namely, antelopes, baboons, monkeys and lions (Ghana Statistical Service, 2014e).

Demographic and Socio-cultural Characteristics

The population of Wa East District which is 72,074 represents 10.3 percent of the total population of the Upper West Region. Males constitute 50.5 percent and females represent 49.5 percent. The district is predominantly rural with no urban settlements. This district has a sex ratio of 102 males per 100 females. The population of the district is youthful (46.6%) and has a total age dependency ratio of 106 (Ghana Statistical Service, 2014e).

The population of persons with disability in the district is 2,783 (3.9%). Sight/visual impairment disability (39.2%) is the commonest followed by physical (22.9%), hearing (19.0%) and emotional (18.9%). Visual/sight impairment is the most common disability amongst the males (38.5%) and amongst the females (40.1%) as well (Ghana Statistical Service, 2014e).

Based on the level of education and literacy among the population aged 3 years and older with disability, over seventy percent (71.9%) have never been to school, 21.0 percent have acquired basic school education and lower proportions are in pre-school (4.2%) and senior high school (2.9%) respectively (Ghana Statistical Service, 2014e).

There are four major ethnic groups in the district, namely Wala (45%), Sissala (21%), Chakali (19%) and Dagaaba/Lobi (15%). Islam is the dominant religion (70%), followed by Traditional religion (20%) and Christianity (10%). The way of life of the people in the district in terms of marriage rites, the performance of funerals, dressing and naming ceremonies is greatly influenced by Islam (Ghana Statistical Service, 2014e).

Economic Activities

The district’s economy has three major sectors which engage the work force and these are agriculture (85%), industry (10%) and services (5%). The agriculture sector has two main subsectors, crop and livestock productions. Crop production is the major activity of majority of inhabitants in the district. About 96 percent of the farmers in the district are crop producers. The major crops cultivated are sorghum, yam, millet, maize, cowpea, groundnuts, rice, soya beans, cowpea, cassava and vegetables. The livestock sub-sector is dominated by small scale producers who keep them as a supplementary activity for incomes and for food security purposes. The major livestock kept are cattle, sheep, goats, pigs and rural poultry including fowls, guinea fowls and turkeys (Ghana Statistical Service, 2014e).

Industrial activities of the district are largely small scale, operating in the informal sector. They are mainly processing activities such as ‘pito’ brewing, gari processing, shea butter extraction, weaving, as well as pottery making. Wood works such as carving of drums, hoe handles, mortar and pestles, and walking sticks are also prevalent in the district (Ghana Statistical Service, 2014e).

Commercial activities in the district are restricted to buying and selling of predominantly agricultural produce, and locally manufactured items. These activities are at their peak during the weekly market days. The major weekly markets in the district are those at Funsi, Kundugu, Bulenga, Loggu, Kpaglahi and Kulkpong. The few stores in various communities also sell assorted commodities to people (Ghana Statistical Service, 2014e).

The services sector in the district comprise the district Assembly, Ghana Education Service, Ghana Health Service, Ghana Police Service, and few private sector actors such as Mobile Network Operators, Transport operators and Non-governmental organisations. Considering employment status among the people with disability who are aged 15 years and older, 57.0 percent are employed, 1.4 percent are unemployed and 41.7 percent are economically not active (Ghana Statistical Service, 2014e).

Health and Transportation Facilities

The Wa East District has no hospital but has nine health centres and 13 community based health planning services centres (Ghana Health Service, 2017). There are however inadequate health personnel to provide the needed health services (Wa East District Assembly, 2016). In addition, this district is bedevilled with poor road network which makes accessibility to health care very difficult. The travel time for accessing health care in hospitals outside the district ranges from one hour to four hours depending on the location of the community. In this regard, the time taken to reach the hospital could affect the chances of survival of sick people in critical conditions (Wa East District Assembly, 2016).

The relevance of the characteristics of the study area to the topic is worth mentioning. For instance, the physical characteristics which comprise topographical features, climatic conditions and the guinea savannah vegetation form part of the physical environment facet of the environmental health QOL domain (WHO, 1996; Ghana Statistical Service, 2014d). These features influence the type of materials use in constructing houses (WHO, 1996; Ghana Statistical Service, 2014d). In effect, the physical characteristics of the study area affect the environmental health QOL of the aged with disability (WHO, 1996).

The demographic and socio-cultural characteristics which include sex, level of education, marriage, religious affiliation, ethnicity, sex ratio, dependency ratio and forms of disabilities are elements of the personal factors QOL domain (WHO, 1996; WHO, 2001; Ghana Statistical Service, 2014d). Socio-demographic characteristics are viewed in the literature as key determinants of QOL of the aged with disability (WHO, 1996; Čankovićet al., 2016). Again, the dependency ratio in this area reflects those features of personal relationships and social support facets of the social relations QOL domain (WHO, 1996; Ghana Statistical Service, 2014d).

In addition, the services sector which includes education, health, telecommunication, banking, security, transportation, accommodation and food service activities has some relationship with the environmental health QOL domain (WHO, 2001; Ghana Statistical Service, 2014d). It has been indicated that economic activities influence the QOL of the aged with disability (WHO, 1996).

Study Population

The study population comprised three groups of respondents: the aged with disability, key informants, and adult care-givers who were aged 18 years and older and lived with the aged with disability in the study districts. For the purpose of this study, the aged with disability were those with visual and physical disability. Among the aged with disability, the study targeted all aged who were 60 years and older. A total number of 950 aged with disability were obtained from lists of PWDs from the Department of Social Welfare and Community Development in each of the study districts (Wa Municipal Assembly, 2015; Nadowli-Kaleo District Assembly, 2015; Jirapa District Assembly, 2015; Wa East District Assembly, 2015). The lists of PWDs contained home addresses of the aged with disability which made it possible for the respondents to be contacted.

Sample Size

In the quantitative survey, all the 950 aged with disability were considered for the study because the total number of 950 respondents was not too large to be studied. Thus, a census survey was conducted. One of the advantages of a census survey is that all the target population participate in the study and hence, enhances accuracy of the results (Weeks, 1999; Parker, 2011).

For the qualitative survey, purposive sampling technique was used to select five key informants for IDIs from each of the four districts, giving a total of 20 key informants. The opportunistic sampling technique was employed to select participants for the FGDs (Patton, 1990). Further, two FGDs comprising male and female groups respectively were organised in each of the four districts. In the Wa Municipality there were seven males and nine females in a group, in Nadowli-Kaleo there were eight males and nine females, in Jirapa district there were six males and eight females, and in the Wa East district there were eight males and seven females, giving a total of 62 participants in the FGDs. The disparity of participants in the FGDs was based on those who made themselves available for the data collection.

Sampling Procedure

The purposive sampling technique was used to select five key informants comprising the social welfare officer of the District Assembly, an 'Imam', a Pastor, a sub-Chief and a Queen mother or 'Magazia' in each of the study districts. A 'Magazia' is a women's leader who champions the affairs of women in a community.

The five key informants were selected based on the key roles that they play in their communities. For instance, the social welfare officer of the district Assembly is directly involved in the distribution of funds to beneficiaries under the LEAP programme. Also, this officer distributes funds to beneficiaries concerning the disability share of the District Assembly Common fund. The 'Imam' and Pastor are also directly involved in caring for their congregations for which people with disability could be of greatest concern to them. Again, the sub-Chief and a Queen mother or 'Magazia' are traditional leaders of their communities who care for their community members which the aged with disability form part.

Further, two FGDs comprising male and female groups of adult care-givers who lived with the aged with disability were organised in each study district. These groups were chosen because they are directly involved in caring for the aged with disability. Male and female FGDs were organised separately in order to enable the females express their opinions. This is because the cultural dynamics in the Northern part of Ghana suppress the views of females in the midst of their male counterparts (Mba, 2007a; Ghana Statistical Service, 2013a).

Data Collection Instruments

The data collection instruments for the study were of two broad categories, quantitative and qualitative. The first category was a questionnaire which was used in collecting quantitative data. The second categories were IDI and FGD guides which were used in collecting qualitative data.

The questionnaire was adapted from the WHOQOL-BREF questionnaire (WHO, 1996; WHO, 2004b). The WHOQOL-BREF questionnaire contains three sections. The first section captures socio-demographic characteristics but for the purpose of this study they were adapted from questionnaires of the 2010 Population and Housing Census of Ghana (Ghana Statistical Service, 2010). The socio-demographic characteristics consist of sex, age, ethnic group, religious affiliation, marital status, level of education, employment status, type of disability, own biological children, surviving children, and living arrangement (Ghana Statistical Service, 2010).

The second section of the questionnaire covers overall QOL and general health (WHO, 1996). Further, the third section has four domains containing 24 facets (WHO, 1996). The four domains are physical health QOL domain, psychological health QOL domain, social relations QOL domain and environmental health QOL domain (WHO, 1996; Gholami *et al.*, 2016). The responses to each of the questions of the facets in the various domains were constructed on a 5-point Likert scale (WHO, 1996). For example: 1 = “Very poor”; 2 = “Poor”; 3 = “Neither poor nor good”; 4 = “Good” and 5 = “Very good”. This is in line with the conceptualisation of QOL as an objective evaluation which is embedded in cultural, social and environmental context of individuals (WHO, 1996).

Furthermore, within the third section of the questionnaire, the physical health QOL domain has seven facets such as pain and discomfort, dependence on medical aids, energy and fatigue, mobility, sleep and rest, activities of daily living and capacity for work (WHO, 1996). The psychological health QOL domain comprises six facets namely, life enjoyment, meaningfulness of life, concentration, bodily image, self-esteem and negative feelings. The social relations QOL domain consists of personal relationships, sexual activity and social support (WHO, 1996; Gholami *et al.*, 2016). The environmental health QOL domain has eight facets which comprise freedom and safety, physical environment, financial resources, daily information, leisure, home environment, access to health care and transportation needs (WHO, 1996). It is instructive to indicate here that, respondents were asked about their QOL within the last ‘four weeks' instead of the WHOQOL-BREF questionnaire stipulated time of the 'last two weeks' (WHO, 1996; Gholami *et al*., 2016).

For the qualitative data, IDI and FGD guides were developed and used to collect the data. This aimed at providing qualitative information about the perceptions of community members on QOL of the aged with disability. The IDIs and FGDs guides were structured in line with the adapted questionnaire but were put in six main sections. The first section covered the socio-demographic characteristics of respondents. The second section captured respondents' perceptions about the overall QOL and general health of the aged with disability. The third section dealt with respondents' perceptions about the physical health QOL of the aged with disability. The fourth section focused on respondents' perceptions about psychological health QOL of the aged with disability. The fifth section covered respondents' perceptions about the social relationships QOL of the aged with disability. Finally, the sixth section contained respondents' perceptions about the environmental health QOL of the aged with disability.

The questions in both the IDI and FGD guides were not strictly structured (Britten, 1995). These instruments allowed the interviewers to probe further to uncover detailed information (Corbetta, 2003).

Training of Field Assistants

Sixteen field assistants were selected from the Wa campus of the University for Development Studies (UDS) based on their ability to speak fluently in any of the local languages, particularly Wali, Dagaare or Sissali to assist in the data collection. This was done to ensure that translations of the contents of the instruments were properly done. The field assistants were trained from 20th to 22nd of October, 2016 on how to administer the questionnaires and conduct the FGDs and IDIs. Again, they were trained on how to observe ethical issues during the data collection. During the training, field assistants were engaged in mock interviews using the various instruments.

Among the sixteen field assistants, there were two interviewers / moderators who were to collect qualitative data while the remaining fourteen field assistants were to collect quantitative data. For the quantitative data collection, two groups were formed comprising seven field assistants per group and each group was to work in two districts but one at a time. The seven field assistants in a group were supposed to administer the questionnaires. Regarding the qualitative data, one of the two interviewers / moderators was supposed to moderate the FGDs with the aid of the FGDs guides while the other interviewer / moderator audio record the information provided by the participants. In the IDIs, the two served as interviewers using the IDIs guides and audio recorded the interviews.

Pre-testing of Instruments

The instruments were pre-tested in Lawra district from 24th to 26th of October, 2016. The main reason for pre-testing the instrument in this district was that it has similar socio-demographic characteristics as the study districts. The field assistants administered the questionnaires on 50 respondents comprising 30 with visual disability and 20 with physical disability. The field assistants were assisted by assembly men in the Lawra District to identify the target respondents.

The respondents were identified through the snowball sampling technique due to the fact that data on lists of PWDs in the district could not be accessed. With the snowball sampling technique, a respondent was first identified and he or she then identified another respondent and it continued in that trend up to 50 respondents (Sarantakos, 2005).

The research team, through the support of an assembly man, collected data from five key informants while two FGDs were conducted among adult care-givers. Respondents in the IDIs and FGDs were identified through purposive sampling technique.

The pre-testing was done to ensure validity and reliability of the instruments and also to ensure that minor typographical errors were identified and corrected. Again, it was to ascertain the effectiveness and efficiencies of the field assistants. The instruments were reviewed before the actual data collection.

Data Collection Procedures

The data collection took place from 1st November to 28th December, 2016 in the study districts. At each district, the field assistants first introduced themselves to the assembly men who then led them to the chiefs for permission before the commencement of data collection. In order to administer the questionnaires, field assistants used the home addresses provided on the lists of PWDs to identify the target respondents in each of the study communities. Within a household, the field assistants first contacted and introduced themselves to the household heads of the aged with disability. Secondly, the household heads upon approval then assisted the field assistants to seek the consent of the respondents before the questionnaires were administered.

Field assistants translated the questions and the possible pre-determined set of responses either in Wali, Dagaare or Sissali to the aged with disability. The respondents then provided their responses for the field assistants to record on the questionnaires. Translation of the questionnaires was done because most of the respondents could not read due to illiteracy or effects of their disability. Besides, any respondent who decided not to participate did so without any coercion.

From Table 3, 297 questionnaires were administered in the Wa Municipality out of the 350 registered members targeted, giving a response rate of 85 percent.

Table 3: Number Interviewed and Response Rate by Study District

Study District	Targeted population	Number interviewed	Response rate (%)
Wa Municipality	350	297	85
Nadowli-Kaleo	216	179	83
Jirapa	200	174	87
Wa East	184	160	87
Total	950	810	85

Source: Field survey (2016)

In the Nadowli-Kaleo district, 179 responded to the questionnaires out of the 216 registered members targeted, giving a response rate of 83 percent. For the Jirapa district, the field assistants administered questionnaires to 174 respondents out of the 200 registered members targeted, giving a response rate of 87 percent. In the Wa East district, 160 questionnaires were administered out of 184 registered members targeted, giving a response rate of 87 percent. In all, 810 questionnaires were administered, giving a response rate of 85 percent (Table 3).

Concerning the qualitative aspect of the study, data were collected from two groups of respondents. One group was key informants and the other group was adult care-givers who lived with the aged with disability in the study districts. In each of the study Districts, the Assembly men supported in organising the target respondents for the IDIs and the FGDs sessions. On the IDIs, one field assistant interviewed one key informant at a time. The total number of respondents who were interviewed was 20, comprising five respondents from each of the study districts. For the FGDs, male and female groups were organised separately and each group was moderated by two field assistants in each of the study districts. The FGDs were audio-recorded by one of the two field assistants.

Challenges Encountered on the Field

A number of challenges emerged during the data collection. Some of the target respondents declined to respond to the questionnaires. For instance, a respondent asked, “Who showed you my house?” and further said “Go, I am not ready for any interrogation”. Also, others thought it was a political exercise and refused to participate because it was an election period (2016 Presidential and Parliamentary elections). Those who decided not to participate were not compelled to do so because they had the right not to participate based on the ethical conditions. Again, some of the respondents partially completed the questionnaires which were discarded during the data processing.

In addition, some of the respondents whose aim was seeking for alms demanded for alms after the interviews were granted. In some cases, field assistants had to give out part of their allowances to such respondents due to their deplorable state of life. Again, transportation was a challenge to field assistants because they had to move from one house to the other in order to interview the respondents. In this case, motor cycles were hired and used to solve the transportation challenge. Besides, some of the respondents were visited late in the evening because they left their houses early in the morning to beg for alms in the streets and return late in the evening. In addition, venues for conducting the IDIs and FGDs were challenging because in some cases venues had to be changed because of noise from activities of some political parties since it was an election period. Further, in some areas, it was very difficult to get the assembly men for the community entry protocol because the assembly men represented a number of communities and some of them did not live within the target communities. In fulfilment of ethical conditions, efforts were made to contact the Assembly men to assist in the data collection.

Ethical Issues

In the first phase, a research proposal was submitted to the University of Cape Coast Institutional Review Board (UCCIRB) for approval. Also, an approval was given by the WHO on the adaptation of the WHOQOL-BREF questionnaire (WHO, 1996). Again, the appropriate authorities of the various

Municipality and District Assemblies of the study areas were contacted through introductory letters from the Department of Population and Health, University of Cape Coast and approval was granted before the commencement of the actual field work.

Further, in each of the study communities, the research team first introduced themselves to the Assembly man who then led the team to the Chief’s Palace for introduction, explanation of the purpose of the research and permission for the research team to collect the data. Furthermore, because the IDIs and FGDs were to be audio recorded, the respondents were guaranteed confidentiality and anonymity in the consent forms. In line with the principles of confidentiality and anonymity (Berg, 2001), respondents’ names were not written on the questionnaires. Also, participants in the IDIs and FGDs were assured that their names will not be used in the discussion of the data.

Data Processing and Analyses

Data processing and analyses were done for both quantitative and qualitative data. In relation to the quantitative data, questionnaires were edited and numbered serially. The International Business Machines (IBM) Corporation Statistical Product and Service Solutions (SPSS) version 20 (IBM Corporation, 2011) was used for data entry.

In the quantitative data processing, the independent variables considered were: sex, age, marital status, level of education, type of disability, and living arrangement. Sex was coded as male and female. Age was captured in absolute years but was re-coded into three age groups: 60 – 69 years, 70 – 79 years and 80 years and older. Type of disability was visual disability and physical disability. Marital status was coded as never married, married, separated/ divorced, widowed, and other (Specify). Level of education was captured as none, primary, Middle/JHS, SHS/Vocational/Technical, Post Secondary/Tertiary and other (Specify) but later collapsed into two broad groups: illiterate and literate.

The dependent variables were overall QOL, physical health QOL, psychological health QOL, social relations QOL and environmental health QOL. The physical health QOL domain had seven facets which are pain and discomfort, dependence on medical aids, energy and fatigue, mobility, sleep and rest, activities of daily living and capacity for work. The psychological health QOL domain constituted six facets namely; life enjoyment, meaningfulness of life, concentration, bodily image, self-esteem, and negative feelings. The social relations QOL domain consisted of three facets namely; personal relationships, sexual activity, and social support. The environmental health QOL domain had eight facets which were freedom and safety, physical environment, financial resources, daily information, leisure, home environment, access to health care and transportation needs.

Furthermore, scores in the overall QOL and the four domains of QOL were transformed to a scale ranging from 0 to 100 to enable comparisons between different domains consisting of unequal number of items (WHO, 1996; Cao et al., 2016). In the 5-point Likert scale, the scores of 1, 2, 3, 4 and 5 were transformed into 20, 40, 60, 80 and 100 respectively (WHO, 1996). Each domain mean score was computed by finding the average of all the responses of the facets under it. In comparative terms, a lower mean score for instance, indicated a lower QOL and a higher mean score showed a higher QOL (WHO, 1996; Khan et al., 2014). However, in absolute terms, a mean score which was below 50 (0 – 49) was considered as low QOL while a mean score from 50 and above (50 - 100) was considered as high QOL. This classification was done for the purpose of this study.

The SPSS version 20 and STATA version 14 were used in analysing the quantitative data. In relation to the socio-demographic characteristics of the respondents, sex and type of disability were analysed by age, marital status, level of education, living arrangement, religious affiliation, and ethnic group. Again, in overall QOL and for each of the four domains of QOL, type of disability and sex were analysed by age, marital status, level of education and living arrangement.

Furthermore, the Kruskal -Wallis statistical test was used to determine the significant effect of socio-demographic characteristics such as sex, age, type of disability, marital status, level of education and living arrangement of the aged with disability on their overall QOL and for each of the four domains of QOL. The Kruskal - Wallis tests is suitable for data analyses if the dependent variables are measured with ordinal scale and the independent variables are categorical (Cohen, 1988; Pallant, 2005; Pallant, 2010). The variables in this study met the conditions of the Kruskal - Wallis tests because data on the dependent variables were collected on an ordinal scale thus 5-point Likert scale. The independent variables such as sex, age, type of disability, marital status, level of education and living arrangement were categorical.

With regards to the qualitative data, IDIs and FGDs were analysed based on the objectives of the study. This was done through the following steps: the first step was transcription of the data collected; the second step involved reading through the transcript several times and making sure that what was significant about what the respondent(s) said was written down; the third step was abstraction where emerging themes were documented; in the fourth step, themes were clustered together in a meaningful way; and in the last step the clustered themes were used to write a narrative account (Giorgi, 1985; Fade, 2004; Wertz, 2005; Smith & Osborn, 2007).

Summary

Chapter four discussed the pragmatism research philosophy and the cross-sectional design of the study. Also, this chapter described the study area and justified the choice of the area. Specifically, questionnaires were used in collecting quantitative data from 810 respondents. Besides, IDIs and FGDs guides were used in collecting qualitative data from key informants and adult care-givers who lived with the aged with disability respectively. Further, the SPSS version 20 and STATA version 14 were used in analysing the quantitative data. Furthermore, the Kruskal -Wallis statistical test was used to determine the significant effect of socio-demographic characteristics of the aged with disability on their QOL. Finally, the qualitative data were analysed by identifying and clustering themes from the responses on the IDIs and FGDs for a written narrative account.

CHAPTER FIVE

QUALITY OF LIFE OF THE AGED WITH DISABILITY

Introduction

This chapter describes the socio-demographic characteristics of the aged with disability by sex and type of disability. Also, it assesses the overall quality of life (QOL) by socio-demographic characteristics of the aged with disability. Again, this chapter presents findings on physical health QOL, psychological health QOL, social relations QOL, and environmental health QOL by socio-demographic characteristics of the aged with disability respectively. Besides, mean scores are used to present results on QOL. A discussion of the results is presented as the last section**.**

Socio-demographic Characteristics of the Aged with Disability

Table 4 presents percentage distribution of socio-demographic characteristics of the aged with disability. The results show that there were a higher proportion of females (74.3%) who were aged from 60-69 years than males (73.2%) with disability. Also, a larger proportion of the females (69.6%) than the males (67.4%) were illiterates (Table 4).

Besides, the results in Table 4 show that the majority of the males (65.0%) were married as compared with the females (55.2%) who were widowed. In addition, more of the males (57.0%) than the females (56.5%) lived with the extended family. Further, majority of the males (64.7%) more than the females (55.4%) were Moslems. Furthermore, the findings indicate that more of the males

(43.3%) were Wala as compared with the females (40.8%) who were Dagaaba (Table 4).

Table 4: Percentage Distribution of Socio-demographic Characteristics of the Aged with Disability

Variable	Male			Female		
	Visual	Physical	Total	Visual	Physical	Total
	N=194	N=165	359	N=227	N=224	451
Age						
60 – 69	67.5	80.0	73.2	70.9	77.7	74.3
70 – 79	28.9	18.0	24.0	25.6	20.1	22.8
80+	3.6	2.0	2.8	3.5	2.2	2.9
Level of education						
Illiterate	68.0	66.7	67.4	73.6	65.6	69.6
Literate	32.0	33.3	32.6	26.4	34.4	30.4
Marital status						
Married	70.1	60.0	65.0	38.8	39.7	39.2
Separated/divorced	8.8	9.7	9.3	6.2	4.9	5.6
Widowed	21.1	30.3	25.7	55.0	55.4	55.2
Living arrangement						
Nuclear family	33.5	52.7	43.0	39.6	47.3	43.5
Extended family	66.5	47.3	57.0	60.4	52.7	56.5

Table 4 cont'd

Religious affiliation						
Christian	28.9	40.0	34.5	44.5	39.3	41.9
Moslem	70.1	59.4	64.7	52.4	58.4	55.4
Traditionalist	1.0	0.6	0.8	3.1	2.3	2.7
Ethnic group						
Wala	42.3	44.2	43.3	35.2	35.7	35.4
Dagaaba	42.2	41.8	42.0	45.8	35.7	40.8
Sissala	5.2	9.1	7.1	13.7	16.1	14.9
Moshi	2.1	3.1	2.6	0.5	4.9	2.7
Others	8.2	1.8	5.0	4.8	7.6	6.2

Source: Field survey (2016)

Overall Quality of Life by Socio-demographic Characteristics of the Aged with Disability

Table 5 presents the overall quality of life by socio-demographic characteristics of the aged with disability. The results show that the aged who had physical disability and were aged 60 – 69 years had slightly higher overall QOL mean score (38.7; Males = 38.4 and Females = 38.9) than those who had visual disability and were aged 60 – 69 years (38.1; Males = 38.4 and Females = 37.8). However, among the aged who had visual disability, those who were aged 80 years and older had the lowest overall QOL mean score (31.0; Males = 30.5 and Females = 31.5). Similarly, the aged who had physical disability and were aged

80 years and older had the lowest overall QOL mean score (34.0; Males = 30.6 and Females = 37.3).

Table 5: Overall Quality of Life by Socio-demographic Characteristics of the Aged with Disability

	Overall QOL					
	Visual			Physical		
	Males N=194 Mean	Females N=227 Mean	Total N= 421 Mean	Males N=165 Mean	Females N=224 Mean	Total N=389 Mean
Age						
60 – 69	38.4	37.8	38.1	38.4	38.9	38.7
70 – 79	34.9	34.8	34.8	37.5	37.7	37.6
80+	30.5	31.5	31.0	30.6	37.3	34.0
Marital status						
Married	38.3	40.0	39.1	39.5	40.0	39.7
Separated/divorced	32.7	34.2	33.4	37.0	39.8	38.4
Widowed	35.0	34.8	34.9	35.6	37.5	36.5
Level of education						
Illiterate	37.4	36.6	37.0	38.3	38.7	38.5
Literate	36.6	37.2	36.9	37.7	38.5	38.1
Living arrangement						
Nuclear family	36.7	36.8	36.8	38.0	38.8	38.4
Extended family	37.3	36.8	37.0	38.1	38.4	38.3

Source: Field survey (2016)

As shown in Table 5, the aged who had physical disability and were married had a little higher overall QOL mean score (39.7; Males = 39.5 and Females = 40.0) than those who had visual disability and were married (39.1; Males = 38.3 and Females = 40.0). In contrast, among the aged who had visual disability, those who were separated / divorced had the lowest overall QOL mean score (33.4; Males = 32.7 and Females = 34.2). However, the aged who had physical disability and were widowed had the lowest overall QOL mean score (36.5; Males = 35.6 and Females = 37.5).

In relation to level of education (Table 5), the aged who had physical disability and were illiterates had a higher overall QOL mean score (38.5; Males = 38.3 and Females = 38.7) than those who had visual disability and were illiterates (37.0; Males = 37.4 and Females = 36.6). The results further indicate that the aged who had physical disability and lived in the nuclear family had a higher overall QOL mean score (38.4; Males = 38.0 and Females = 38.8) than those who had visual disability and lived in the nuclear family (36.8; Males = 36.7 and Females = 36.8).

Kruskal -Wallis Test of Socio-demographic Characteristics by Overall Quality of Life

The results of a Kruskal -Wallis test of socio-demographic characteristics by overall quality of life of the aged with disability are shown in Table 6. The Kruskal-Wallis test revealed a statistically significant difference between the age of the aged with disability on their overall QOL (H (2) = 14.5, p = 0.001) with a mean rank of 431.7 (median = 39.2) for those aged 60-69 years, 347.1 (median =

39.2) for those aged 70-79 years and 204.9 (median = 39.2) for those aged 80 years and older. Deducing from these results, the aged with disability differed in their overall QOL in relation to their age.

Table 6: Kruskal -Wallis Test of Socio-demographic Characteristics by Overall Quality of Life

Socio-demographic Characteristics	Overall QOL					
	N	Mean Rank	Median	H	Df	Asymp. Sig.
Sex						
Male	359	392.8				
Female	451	415.6	39.2	2.3	1	0.132
Age						
60 – 69	598	431.7				
70 – 79	189	347.1				
80+	23	204.9	39.2	14.5	2	0.001***
Type of disability						
Visual disability	421	373.0				
Physical disability	389	440.7	39.2	6.5	1	0.011**
Marital status						
Married	412	463.6				

Table 6 cont'd

Separated/divorced	58	299.1				
Widowed	340	353.2	39.2	17.2	2	0.000***
Level of education						
Illiterate	556	407.0				
Literate	254	402.2	39.2	0.1	1	0.793
Living arrangement						
Nuclear family	348	412.3				
Extended family	462	400.4	39.2	0.9	1	0.349

Source: Field survey (2016)

Note: **p<0.05; ***p< 0.01

The Kruskal-Wallis results also indicated a significant difference between the type of disability of the aged with disability on their overall QOL (H (1) = 6.5, p = 0.011) with a mean rank of 373.0 (median = 39.2) for those with visual disability and 440.7 (median = 39.2) for those with physical disability (Table 6). These findings indicate that the overall QOL of the aged with disability varied in terms of their type of disability.

Further, there was a significant difference between marital status of the aged with disability on their overall QOL (H (2) = 17.2, p = 0.000) with a mean rank of 463.6 (median = 39.2) for those married, 299.1 (median = 39.2) for those separated / divorced and 353.2 (median = 39.2) for those widowed (Table 6). It could be drawn from these analyses that the overall QOL of the aged with disability was different based upon their marital status.

Physical Health Quality of Life by Socio-demographic Characteristics of the Aged with Disability

Table 7 shows physical health quality of life by socio-demographic characteristics of the aged with disability. The aged who had physical disability and were aged 60 – 69 years had a little higher physical health QOL mean score (38.7; Males = 38.5 and Females = 38.8) than those who had visual disability and were aged 60 – 69 years (38.4; Males = 38.8 and Females = 38.1). Despite this, among the aged who had visual disability, those who were aged 80 years and older had the lowest physical health QOL mean score (32.0; Males = 31.8 and Females = 32.1). Besides, the aged who had physical disability and were aged 80 years and older had the lowest physical health QOL mean score (36.2; Males = 37.1 and Females = 35.4).

As observed in Table 7, the aged who had physical disability and were married had a relatively higher physical health QOL mean score (39.7; Males = 39.7 and Females = 39.7) than those who had visual disability and were married (39.3; Males = 38.6 and Females = 40.1). In contrast, among the aged who had visual disability, those who were separated / divorced had the lowest physical health QOL mean score (33.9; Males = 33.1 and Females = 34.7). In addition, the aged who had physical disability and were widowed had the lowest physical health QOL mean score (36.6; Males = 36.1 and Females = 37.1).

Table 7: Physical Health Quality of Life by Socio-demographic Characteristics of the Aged with Disability

	Physical Health QOL					
	Visual			Physical		
	Males N=194 Mean	Females N=227 Mean	Total N= 421 Mean	Males N=165 Mean	Females N=224 Mean	Total N=389 Mean
Age						
60 – 69	38.8	38.1	38.4	38.5	38.8	38.7
70 – 79	34.9	35.8	35.4	37.7	37.7	37.7
80+	31.8	32.1	32.0	37.1	35.4	36.2
Marital status						
Married	38.6	40.1	39.3	39.7	39.7	39.7
Separated/divorced	33.1	34.7	33.9	37.5	39.7	38.6
Widowed	35.3	35.6	35.5	36.1	37.1	36.6
Level of education						
Illiterate	37.2	37.0	37.1	38.5	38.7	38.6
Literate	37.8	38.2	38.0	38.0	38.0	38.0
Living arrangement						
Nuclear family	37.1	37.3	37.2	38.4	38.8	38.6
Extended family	37.6	37.3	37.5	38.3	38.2	38.3

Source: Field survey (2016)

Further, it can be observed from Table 7 that the aged who had physical disability and were illiterates had a higher physical health QOL mean score (38.6; Males = 38.5 and Females = 38.7) than those who had visual disability and were illiterates (37.1; Males = 37.2 and Females = 37.0). With regard to living arrangement, the aged who had physical disability and lived in the nuclear family had a higher physical health QOL mean score (38.6; Males = 38.4 and Females = 38.8) than those who had visual disability and lived in the nuclear family (37.2; Males = 37.1 and Females = 37.3).

Kruskal -Wallis Test of Socio-demographic Characteristics by Physical Health Quality of Life

The results in Table 8 show a Kruskal -Wallis test of socio-demographic characteristics by physical health quality of life of the aged with disability. The results indicated a statistically significant difference across age of the aged with disability on their physical health QOL (H (2) = 9.0, p = 0.011) with a mean rank of 430.1 (median = 40.0) for those aged 60-69 years, 345.9 (median = 40.0) for those aged 70-79 years and 233.2 (median = 40.0) for those aged 80 years and older. These analyses establish that the physical health QOL of the aged with disability was different across their age.

Further evidence showed a significant difference between the type of disability of the respondents on their physical health QOL (H (1) = 7.4, p = 0.020) with a mean rank of 382.1 (median = 40.0) for those with visual disability and 429.9 (median = 40.0) for those with physical disability (Table 8). These results indicate that perhaps the type of disability of the aged with disability determined their physical health QOL.

Table 8: Kruskal -Wallis Test of Socio-demographic Characteristics by Physical Health Quality of Life

Socio-demographic Characteristics	Physical Health QOL					
	N	Mean Rank	Median	H	Df	Asymp. Sig.
Sex						
Male	359	404.4				
Female	451	406.4	40.0	0.8	1	0.373
Age						
60 – 69	598	430.1				
70 – 79	189	345.9				
80+	23	233.2	40.0	9.0	2	0.011**
Type of disability						
Visual disability	421	382.1				
Physical disability	389	429.9	40.0	7.4	1	0.020**
Marital status						
Married	412	461.0				
Separated/divorced	58	326.3				
Widowed	340	351.8	40.0	4.9	2	0.011**
Level of education						
Illiterate	556	402.2				

Table 8 cont'd

Literate	254	412.7	40.0	0.6	1	0.440
Living arrangement						
Nuclear family	348	411.4				
Extended family	462	401.1	40.0	1.0	1	0.311

Source: Field survey (2016)

Note: $**p<0.05$; $***p< 0.01$

The test further proved a significant difference between marital status of the aged with disability on their physical health QOL (H (2) = 4.9, p = 0.011) with a mean rank of 461.0 (median = 40.0) for those married, 326.3 (median = 40.0) for those separated / divorced and 351.8 (median = 40.0) for those widowed (Table 8). It could be inferred from these findings that marital status of the aged with disability accounts for differences in their physical health QOL.

Psychological Health Quality of Life by Socio-demographic Characteristics of the Aged with Disability

The psychological health quality of life by socio-demographic characteristics of the aged with disability is presented in Table 9. The aged who had physical disability and were aged 60 – 69 years had higher psychological health QOL mean score (38.5; Males = 38.0 and Females = 39.0) than those who had visual disability and were aged 60 – 69 years (37.9; Males = 38.4 and Females = 37.4).

Table 9: Psychological Health Quality of Life by Socio-demographic Characteristics of the Aged with Disability

	Psychological Health QOL					
	Visual			Physical		
	Males N=194 Mean	Females N=227 Mean	Total N= 421 Mean	Males N=165 Mean	Females N=224 Mean	Total N=389 Mean
Age						
60 – 69	38.4	37.4	37.9	38.0	39.0	38.5
70 – 79	34.5	34.0	34.3	36.8	37.2	37.0
80+	29.5	33.8	31.7	26.7	38.7	32.7
Marital status						
Married	38.1	39.6	38.8	39.5	40.3	39.9
Separated/divorced	32.4	32.9	32.6	36.5	40.3	38.4
Widowed	34.8	34.5	34.6	34.0	37.3	35.6
Level of education						
Illiterate	37.6	36.5	37.0	37.7	38.6	38.2
Literate	35.6	36.2	35.9	37.2	38.7	38.0
Living arrangement						
Nuclear family	35.8	36.2	36.0	37.7	38.8	38.3
Extended family	37.5	36.5	37.0	37.4	38.5	38.0

Source: Field survey (2016)

However, among the aged who had visual disability, those who were aged 80 years and older had the lowest psychological health QOL mean score (31.7; Males = 29.5 and Females = 33.8). Similarly, the aged who had physical disability and were aged 80 years and older had the lowest psychological health QOL mean score (32.7; Males = 26.7 and Females = 38.7).

Concerning the marital status of the aged with disability (Table 9), the aged who had physical disability and were married had a higher psychological health QOL mean score (39.9; Males = 39.5 and Females = 40.3) than those who had visual disability and were married (38.8; Males = 38.1 and Females = 39.6). In addition, among the aged who had visual disability, those who were separated / divorced had the lowest psychological health QOL mean score (32.6; Males = 32.4 and Females = 32.9). Notwithstanding, the aged who had physical disability and were widowed had the lowest psychological health QOL mean score (35.6; Males = 34.0 and Females = 37.3).

The results in Table 9 further show that the aged who had physical disability and were illiterates had a higher psychological health QOL mean score (38.2; Males = 37.7 and Females = 38.6) than those who had visual disability and were illiterates (37.0; Males = 37.6 and Females = 36.5). Again, the results indicate that the aged who had physical disability and lived in the nuclear family had a higher psychological health QOL mean score (38.3; Males = 37.7 and Females = 38.8) than those who had visual disability and lived in the nuclear family (36.0; Males = 35.8 and Females = 36.2).

Kruskal -Wallis Test of Socio-demographic Characteristics by Psychological Health Quality of Life

Table 10 presents results of a Kruskal -Wallis test of socio-demographic characteristics by psychological health quality of life of the aged with disability. The analyses revealed a statistically significant difference across age of the aged with disability on their psychological health QOL (H (2) = 16.4, p = 0.000) with a mean rank of 433.4 (median = 36.7) for those aged 60-69 years, 337.3 (median = 36.7) for those aged 70-79 years and 241.0 (median = 36.7) for those aged 80 years and older. The findings show that age influenced the psychological health QOL of the aged with disability.

Moreover, the results showed a significant difference between the type of disability of the aged on their psychological health QOL (H (1) = 6.6, p = 0.010) with a mean rank of 375.9 (median = 36.7) for the aged with visual disability and 437.6 (median = 36.7) for those with physical disability (Table 10). These findings suggest that the aged with disability differed in their psychological health QOL in terms of their type of disability.

Further, the test revealed a significant difference between marital status of the aged with disability on their psychological health QOL (H (2) = 18.2, p = 0.000) with a mean rank of 474.6 (median = 36.7) for those married, 327.0 (median = 36.7) for those separated / divorced and 335.2 (median = 36.7) for those widowed (Table 10). It could be argued from these results that marital status can influence the psychological health QOL of the aged with disability.

Table 10: Kruskal -Wallis Test of Socio-demographic Characteristics by Psychological Health Quality of Life

Socio-demographic Characteristics	Psychological Health QOL					
	N	Mean Rank	Median	H	Df	Asymp. Sig.
Sex						
Male	359	396.1				
Female	451	413.0	36.7	0.8	1	0.373
Age						
60 – 69	598	433.4				
70 – 79	189	337.3				
80+	23	241.0	36.7	16.4	2	0.000***
Type of disability						
Visual disability	421	375.9				
Physical disability	389	437.6	36.7	6.6	1	0.010**
Marital status						
Married	412	474.6				
Separated /divorced	58	327.0				
Widowed	340	335.2	36.7	18.2	2	0.000***

Table 10 cont'd

Level of education						
Illiterate	556	411.8				
Literate	254	391.7	36.7	1.0	1	0.316
Living arrangement						
Nuclear family	348	403.8				
Extended family	462	406.8	36.7	0.2	1	0.672

Source: Field survey (2016)

Note: $^{**}p<0.05$; $^{***}p< 0.01$

Social Relations Quality of Life by Socio-demographic Characteristics of the Aged with Disability

Social relations quality of life by socio-demographic characteristics of the aged with disability is shown in Table 11. The aged who had physical disability and were aged 60 – 69 years had a higher social relations QOL mean score (38.6; Males = 39.1 and Females = 38.1) than those who had visual disability and were aged 60 – 69 years (37.7; Males = 38.3 and Females = 37.1). In contrast, among the aged who had visual disability, those who were aged 80 years and older had the lowest social relations QOL mean score (27.5; Males = 27.6 and Females = 27.5). Moreover, the aged who had physical disability and were aged 80 years and older had the lowest social relations QOL mean score (31.3; Males = 26.7 and Females = 36.0).

Table 11: Social Relations Quality of Life by Socio-demographic Characteristics of the Aged with Disability

	Social Relations QOL					
	Visual			Physical		
	Males N=194 Mean	Females N=227 Mean	Total N= 421 Mean	Males N=165 Mean	Females N=224 Mean	Total N=389 Mean
Age						
60 – 69	38.3	37.1	37.7	39.1	38.1	38.6
70 – 79	34.4	33.1	33.7	36.4	37.0	36.7
80+	27.6	27.5	27.5	26.7	36.0	31.3
Marital status						
Married	38.1	39.1	38.6	39.7	39.6	39.6
Separated/divorced	32.5	32.4	32.5	35.0	38.2	36.6
Widowed	34.3	33.8	34.0	37.1	36.6	36.8
Level of education						
Illiterate	36.7	35.2	35.9	38.2	38.0	38.1
Literate	37.1	37.3	37.2	38.9	37.7	38.3
Living arrangement						
Nuclear family	36.5	35.9	36.2	38.2	38.0	38.1
Extended family	37.0	35.7	36.3	38.6	37.7	38.1

Source: Field survey (2016)

The results in Table 11 depict that the aged who had physical disability and were married had a higher social relations QOL mean score (39.6; Males = 39.7 and Females = 39.6) than those who had visual disability and were married (38.6; Males = 38.1 and Females = 39.1). Notwithstanding, among the aged who had visual disability, those who were separated / divorced had the lowest social relations QOL mean score (32.5; Males = 32.5 and Females = 32.4). Similarly, the aged who had physical disability and were separated / divorced had the lowest social relations QOL mean score (36.6; Males = 35.0 and Females = 38.2).

In addition, Table 11 shows that the aged who had physical disability and were illiterates had a higher social relations QOL mean score (38.1; Males = 38.2 and Females = 38.0) than those who had visual disability and were illiterates (35.9; Males = 36.7 and Females = 35.2). In relation to living arrangement, the aged who had physical disability and lived in the nuclear family had a higher social relations QOL mean score (38.1; Males = 38.2 and Females = 38.0) than those who had visual disability and lived in the nuclear family (36.2; Males = 36.5 and Females = 35.9).

Kruskal -Wallis Test of Socio-demographic Characteristics by Social Relations Quality of Life

The results of a Kruskal -Wallis test of socio-demographic characteristics by social relations quality of life of the aged with disability is presented in Table 12. Statistically, a significant difference was observed between age of the aged with disability on their social relations QOL (H (2) = 22.8, p = 0.000) with a mean rank of 434.5 (median = 40.0) for those aged 60-69 years, 340.8 (median = 40.0) for those aged 70-79 years and 184.9 (median = 40.0) for those aged 80 years and older (Table 12). These results point to the fact that age had an impact on the social relations QOL of the aged with disability.

Table 12: Kruskal -Wallis Test of Socio-demographic Characteristics by Social Relations Quality of Life

Socio-demographic Characteristics	Social Relations QOL					
	N	Mean Rank	Median	H	Df	Asymp. Sig.
Sex						
Male	359	417.5				
Female	451	395.1	40.0	0.0	1	0.983
Age						
60 – 69	598	434.5				
70 – 79	189	340.8				
80+	23	184.9	40.0	22.8	2	0.000***
Type of disability						
Visual disability	421	378.5				
Physical disability	389	434.8	40.0	1.7	1	0.196
Marital status						
Married	412	459.3				
Separated /divorced	58	319.8				
Widowed	340	354.1	40.0	10.3	2	0.006***

Table 12 cont'd

Level of education						
Illiterate	556	397.3				
Literate	254	423.6	40.0	3.5	1	0.062
Living arrangement						
Nuclear family	348	408.9				
Extended family	462	402.1	40.0	0.2	1	0.643

Source: Field survey (2016)

Note: $^{**}p<0.05$; $^{***}p< 0.01$

As shown in Table 12, a significant difference was found between marital status of the aged with disability on their social relations QOL (H (2) = 10.3, p = 0.006) with a mean rank of 459.3 (median = 40.0) for those married, 319.8 (median = 40.0) for those separated / divorced and 354.1 (median = 40.0) for those widowed. It could be inferred from these findings that the social relations QOL of the aged with disability was different across their marital status.

Environmental Health Quality of Life by Socio-demographic Characteristics of the Aged with Disability

Table 13 shows the environmental health quality of life by socio-demographic characteristics of the aged with disability. The aged who had physical disability and were aged 60 – 69 years had relatively higher environmental health QOL mean score (38.8; Males = 38.3 and Females = 39.2) than those who had visual disability and were aged 60 – 69 years (38.1; Males = 38.2 and Females = 38.0).

Table 13: Environmental Health Quality of Life by Socio-demographic Characteristics of the Aged with Disability

	Environmental Health QOL					
	Visual			Physical		
	Males N=194 Mean	Females N=227 Mean	Total N= 421 Mean	Males N=165 Mean	Females N=224 Mean	Total N=389 Mean
Age						
60 – 69	38.2	38.0	38.1	38.3	39.2	38.8
70 – 79	35.3	35.1	35.2	38.3	38.3	38.3
80+	31.1	30.6	30.8	29.2	38.5	33.8
Marital status						
Married	38.2	40.2	39.2	39.4	40.2	39.8
Separated/divorced	32.6	35.4	34.0	37.7	40.2	38.9
Widowed	35.2	34.8	35.0	35.8	38.1	36.9
Level of education						
Illiterate	37.6	37.0	37.3	36.8	40.9	38.8
Literate	36.0	37.0	36.5	37.4	38.9	38.1

Table 13 cont'd

Living arrangement						
Nuclear family	37.2	37.2	37.2	37.9	39.2	38.6
Extended family	37.1	36.8	36.9	38.4	38.8	38.6

Source: Field survey (2016)

In addition, among the aged who had visual disability, those who were aged 80 years and older had the lowest environmental health QOL mean score (30.8; Males = 31.1 and Females = 30.6). Similarly, the aged who had physical disability and were aged 80 years and older had the lowest environmental health QOL mean score (33.8; Males = 29.2 and Females = 38.5).

The findings in Table 13 point out that the aged who had physical disability and were married had a little higher environmental health QOL mean score (39.8; Males = 39.4 and Females = 40.2) than those who had visual disability and were married (39.2; Males = 38.2 and Females = 40.2). Despite this, among the aged who had visual disability, those who were separated / divorced had the lowest environmental health QOL mean score (34.0; Males = 32.6 and Females = 35.4). Notwithstanding, the aged who had physical disability and were widowed had the lowest environmental health QOL mean score (36.9; Males = 35.8 and Females = 38.1).

Again, Table 13 shows that the aged who had physical disability and were illiterates had a higher environmental health QOL mean score (38.8; Males = 36.8 and Females = 40.9) than those who had visual disability and were illiterates (37.3; Males = 37.6 and Females = 37.0). Furthermore, the results point out that the aged who had physical disability and lived with the extended family had a higher environmental health QOL mean score (38.6; Males = 38.4 and Females = 38.8) than those who had visual disability and lived with the extended family (36.9; Males = 37.1 and Females = 36.8).

Kruskal -Wallis Test of Socio-demographic Characteristics by Environmental Health Quality of Life

The results in Table 14 present a Kruskal -Wallis test of socio-demographic characteristics by environmental health quality of life of the aged with disability. The findings established a significant difference between sex of the aged with disability on their environmental health QOL (H (1) = 4.0, p = 0.045) with a mean rank of 392.8 (median = 40.0) for males and 415.6 (median = 40.0) for females (Table 14). These analyses show that the gender of the aged with disability had some impact on their environmental health QOL.

As observed in Table 14, there was a statistically significant difference between age of the aged with disability on their environmental health QOL (H (2) = 13.5, p = 0.001) with a mean rank of 428.9 (median = 40.0) for those aged 60-69 years, 355.9 (median = 40.0) for those aged 70-79 years and 205.0 (median = 40.0) for those aged 80 years and older. These findings establish that age had certain degree of effect on the environmental health QOL of the aged with disability.

Also, statistically, a significant difference was found between marital status of the aged with disability on their environmental health QOL (H (2) = 10.5, p = 0.005) with a mean rank of 467.9 (median = 40.0) for those married, 332.1 (median = 40.0) for those separated / divorced and 342.3 (median = 40.0) for those widowed (Table 14). These analyses imply that the aged with disability had different environmental health QOL with regards to their marital status.

Table 14: Kruskal -Wallis Test of Socio-demographic Characteristics by Environmental Health Quality of Life

Socio-demographic Characteristics	Environmental Health QOL					
	N	Mean Rank	Median	H	Df	Asymp. Sig.
Sex						
Male	359	392.8				
Female	451	415.6	40.0	4.0	1	0.045**
Age						
60 – 69	598	428.9				
70 – 79	189	355.9				
80+	23	205.0	40.0	13.5	2	0.001***
Type of disability						
Visual disability	421	377.4				
Physical disability	389	435.1	40.0	2.4	1	0.118
Marital status						
Married	412	467.9				
Separated/divorced	58	332.1				
Widowed	340	342.3	40.0	10.5	2	0.005***

Table 14 cont'd

Level of education						
Illiterate	556	412.5				
Literate	254	390.1	40.0	1.6	1	0.201
Living arrangement						
Nuclear family	348	414.3				
Extended family	462	398.8	40.0	0.5	1	0.492

Source: Field survey (2016)

Note: **p<0.05; ***p< 0.01

Discussion of Results

Many authors in disability studies have documented diverse findings on socio-demographic characteristics of the aged with disability (Datta, Datta & Majumdar, 2015; Soósová, 2016) and for that matter, this study is no exception. The study found that there was a higher proportion of females (74.3%) who were aged 60-69 years than males (73.2%) with disability (Table 4). These results support the claim that women live longer and outnumber men at every age among the elderly (Himes, 2002).

Also, these findings revealed that a larger proportion of the females (69.6%) than the males (67.4%) were illiterates. Again, the study showed that the majority of the males (65.0%) were married as compared with the females (55.2%) who were widowed (Table 4). One of the reasons why over 55 percent of the females were widowed could be because of the assertion that women are more likely than men to lose their spouses and less likely to remarry if they are widowed (Kinsella & Phillips, 2005). Another reason could be the tradition of polygyny, where many women would become widows after the death of their husbands and this practice is particularly pronounced in the northern part of Ghana (Mba, 2007a). In addition, the analyses pointed out that more of the males (57.0%) than the females (56.5%) lived with the extended family (Table 4). These results contradict Mba (2007b) assertion that elderly men are more likely to be living in nuclear households than elderly women.

Considering the overall QOL of the aged with disability, the results (Table 5) revealed that the aged who had physical disability and were aged 60 – 69 years had a slightly higher overall QOL mean score (38.7; Males = 38.4 and Females = 38.9) than those who had visual disability and were aged 60 – 69 years (38.1; Males = 38.4 and Females = 37.8). It is observed that, despite the little variation in overall QOL of the aged with disability with respect to their age, their overall QOL was generally low. This could be associated with the prevailing poverty situation in the area since about 70.7 percent of the people in the Upper West Region are poor (Ghana Statistical Service, 2014a). Besides, these results may support the assertion of the exchange theory that because the aged with disability have fewer resources in exchange they get little support from the society; hence, their overall QOL is adversely affected (Putney *et al*., 2005).

Also, the study found that among the aged who had visual disability, those who were aged 80 years and older had the lowest overall QOL mean score (31.0; Males = 30.5 and Females = 31.5). Similarly, the aged who had physical disability and were aged 80 years and older had the lowest overall QOL mean score (34.0;

Males = 30.6 and Females = 37.3). A Kruskal-Wallis test was used to determine the significant effect of age of the aged with disability on their overall QOL. The test revealed a statistically significant difference between age of the aged with disability on their overall QOL (H (2) = 14.5, p = 0.001) with a mean rank of 431.7 (median = 39.2) for those aged 60-69 years, 347.1 (median = 39.2) for those aged 70-79 years and 204.9 (median = 39.2) for those aged 80 years and older (Table 6). These findings do not support the null hypothesis that age has no significant effect on overall QOL of the aged with disability.

Deducing from these results (Table 5), it suggests that as the age of the aged with disability increased, their overall QOL decreased. One of the reasons which could account for this trend is that as the age of individuals' advances, their health related problems become more common and gradually their overall QOL decline (Datta *et al*., 2015). Further, these results support the adapted ICF framework for the study which indicates that the age of the aged with disability determines their overall QOL (WHO, 1996; WHO, 2001).

This study further revealed that among the aged who had visual disability (Table 5), those who were separated / divorced had the lowest overall QOL mean score (33.4; Males = 32.7 and Females = 34.2). However, the aged who had physical disability and were widowed had the lowest overall QOL mean score (36.5; Males = 35.6 and Females = 37.5). Further analyses with a Kruskal-Wallis test was done to examine the significant effect of marital status of the aged with disability on their overall QOL.

This test found a significant difference between marital status of the aged with disability on their overall QOL (H (2) = 17.2, p = 0.000) with a mean rank of 463.6 (median = 39.2) for those married, 299.1 (median = 39.2) for those separated / divorced and 353.2 (median = 39.2) for those widowed (Table 6). The findings fail to uphold the null hypothesis that marital status has no significant effect on overall QOL of the aged with disability. It could be drawn from these analyses that the overall QOL of the aged with disability was different based on their marital status. For instance, those who were married had the highest overall QOL with regards to those who were separated / divorced and widowed. This finding is similar to Gupta, Mohan, Tiwari, Singh and Singh (2014) study which found that those who were married had the highest mean score in overall QOL. In addition, these analyses are in line with the adapted ICF framework that the marital statuses of the aged with disability influence their overall QOL (WHO, 1996; WHO, 2001).

Furthermore, the analyses (Table 5) indicated that the aged who had physical disability and lived in the nuclear family had a higher overall QOL mean score (38.4; Males = 38.0 and Females = 38.8) than those who had visual disability and lived in the nuclear family (36.8; Males = 36.7 and Females = 36.8). In contrast to these results, Ganesh, Anindo and Pavithra (2014) revealed that the aged with physical disability who lived in the nuclear family were associated with lower overall QOL as compared to those with visual disability.

In the physical health QOL domain (Table 7), the study found that the aged who had visual disability and were aged 80 years and older had the lowest physical health QOL mean score (32.0; Males = 31.8 and Females = 32.1). Also, the aged who had physical disability and were aged 80 years and older had the lowest physical health QOL mean score (36.2; Males = 37.1 and Females = 35.4). A Kruskal-Wallis test was performed to determine the impact of age on physical health QOL of the aged with disability. The analyses discovered a statistically significant difference across the age of the aged with disability on their physical health QOL (H (2) = 9.0, p = 0.011) with a mean rank of 430.1 (median = 40.0) for those aged 60-69 years, 345.9 (median = 40.0) for those aged 70-79 years and 233.2 (median = 40.0) for those aged 80 years and older (Table 8).

These findings do not confirm the null hypothesis that age has no significant effect on physical health QOL of the aged with disability. The analyses established that the physical health QOL of the aged with disability was different across their age. Further, the results substantiate the observation by Chandrika, Radhakumari and DeviMadhavi (2015) that as the age of respondents increase the mean scores of their physical health QOL decrease. Again, Amarya, Singh and Sabharwal (2015) found that limitations of the aged in instrumental activities of daily living increased with increasing age.

The analyses revealed that among the aged who had visual disability (Table 7), those who were separated / divorced had the lowest physical health QOL mean score (33.9; Males = 33.1 and Females = 34.7). However, the aged who had physical disability and were widowed had the lowest physical health QOL mean score (36.6; Males = 36.1 and Females = 37.1). A Kruskal-Wallis test further revealed a significant difference between marital status of the aged with disability on their physical health QOL (H (2) = 4.9, p = 0.011) with a mean rank of 461.0 (median = 40.0) for those married, 326.3 (median = 40.0) for those separated / divorced and 351.8 (median = 40.0) for those widowed (Table 8).

These findings fail to uphold the null hypothesis that marital status has no significant effect on physical health QOL of the aged with disability. It could be inferred from the results that the marital status of the aged with disability accounted for differences in their physical health QOL. In addition, the analysis showed that the aged who were married had the highest physical health QOL in relation to those who were separated / divorced or widowed. These results agree with those of Soósová (2016) who found that living with a partner improved upon the physical health QOL of the aged. Furthermore, this finding support the social model of disability which views disability mainly as a societal problem created through neglect and discrimination against persons with disability (Mitra, 2006; Waddell & Aylward, 2010).

Evidence from the findings (Table 7) indicated that the aged who had physical disability and were illiterates had a higher physical health QOL mean score (38.6; Males = 38.5 and Females = 38.7) than those who had visual disability and were illiterates (37.1; Males = 37.2 and Females = 37.0). These results are consistent with Gholami *et al*. (2016) who found that the aged with physical disabilities who were illiterates had higher mean score in physical health QOL than their counterparts with visual disability.

Regarding the psychological health QOL domain (Table 9), the study pointed out that the aged who had visual disability and were aged 80 years and older had the lowest psychological health QOL mean score (31.7; Males = 29.5 and Females = 33.8). Similarly, the aged who had physical disability and were aged 80 years and older had the lowest psychological health QOL mean score (32.7; Males = 26.7 and Females = 38.7). Further analyses with a Kruskal-Wallis test revealed a statistically significant difference across the age of the aged with disability on their psychological health QOL (H (2) = 16.4, p = 0.000) with a mean rank of 433.4 (median = 36.7) for those aged 60-69 years, 337.3 (median = 36.7) for those aged 70-79 years and 241.0 (median = 36.7) for those aged 80 years and older (Table 10).

These results do not support the null hypothesis that age has no significant effect on psychological health QOL of the aged with disability. The analyses showed that age influenced the psychological health QOL of the aged with disability. The results further support the postulation that the psychological health QOL of an individual becomes poorer with the advancement of age (Datta *et al*., 2015).

The study further found that, among the aged who had visual disability (Table 9), those who were separated / divorced had the lowest psychological health QOL mean score (32.6; Males = 32.4 and Females = 32.9). On the contrary, the aged who had physical disability and were widowed had the lowest psychological health QOL mean score (35.6; Males = 34.0 and Females = 37.3). These results suggest that the aged with disability who were married had the highest psychological health QOL compared with those who were separated / divorced and widowed. In support of this view, a Kruskal-Wallis test showed a significant difference between marital status of the aged with disability on their psychological health QOL (H (2) = 18.2, p = 0.000) with a mean rank of 474.6 (median = 36.7) for those married, 327.0 (median = 36.7) for those separated / divorced and 335.2 (median = 36.7) for those widowed (Table 10).

The findings fail to uphold the null hypothesis that marital status has no significant effect on psychological health QOL of the aged with disability. These imply that the aged with disability vary in psychological health QOL in relation to their marital status. Besides, the results confirm the adapted ICF framework for the study that marital status determines the psychological health QOL of the aged with disability (WHO, 1996; WHO, 2001). Perhaps, the availability of a couple could help improve the psychological health QOL of a married aged with disability than his or her colleague who has no partner (Kaur, Kaur & Venkateashan, 2015).

In addition, the results (Table 9) showed that the aged who had physical disability and were illiterates had a higher psychological health QOL mean score (38.2; Males = 37.7 and Females = 38.6) than those who had visual disability and were illiterates (37.0; Males = 37.6 and Females = 36.5). These results are in line with Chandrika *et al*. (2015) who found that the aged with physical disability who were illiterates had a higher psychological health QOL mean score than those who had visual disability and were illiterates.

In relation to the social relations QOL domain (Table 11), the study revealed that the aged who had visual disability and were aged 80 years and older had the lowest social relations QOL mean score (27.5; Males = 27.6 and Females

= 27.5). Besides, the aged who had physical disability and were aged 80 years and older had the lowest social relations QOL mean score (31.3; Males = 26.7 and Females = 36.0). The results indicated that the aged who were aged 60-69 years had the highest social relations QOL compared to those who were aged 70-79 years and 80 years and older. A further analysis with a Kruskal-Wallis test was conducted to explore the impact of age on social relations QOL of the aged with disability. A significant difference was observed between the age of the aged with disability on their social relations QOL (H (2) = 22.8, p = 0.000) with a mean rank of 434.5 (median = 40.0) for those aged 60-69 years, 340.8 (median = 40.0) for those aged 70-79 years and 184.9 (median = 40.0) for those aged 80 years and older (Table 12).

These results fail to support the null hypothesis that age has no significant effect on social relations QOL of the aged with disability. The findings pointed to the fact that age had an impact on the social relations QOL of the aged with disability. Further, these results confirm Datta *et al*. (2015) assertion that social interaction decreases with increased age and in effect, social relations QOL becomes worse. Notwithstanding these results, Chang, Yao, Hu and Wang (2015) found that being older than 85 years was associated with a better quality of social relationships.

The study revealed that among the aged who had visual disability (Table 11), those who were separated / divorced had the lowest social relations QOL mean score (32.5; Males = 32.5 and Females = 32.4). In the same way, the aged who had physical disability and were separated / divorced had the lowest social relations QOL mean score (36.6; Males = 35.0 and Females = 38.2). Further, a Kruskal-Wallis test was used to examine the effect of marital status on social relations QOL of the aged with disability. A significant difference was found between marital status of the aged with disability on their social relations QOL (H (2) = 10.3, p = 0.006) with a mean rank of 459.3 (median = 40.0) for those married, 319.8 (median = 40.0) for those separated / divorced and 354.1 (median = 40.0) for those widowed (Table 12). These findings do not support the null hypothesis that marital status has no significant effect on social relations QOL of the aged with disability. It could be inferred from the results that the social relations QOL of the aged with disability was different across their marital status.

Furthermore, these analyses are supported in literature on social relations QOL of the aged with disability. Chandrika *et al*. (2015) observed that the mean scores of social relations QOL were less among the widowed as compared to those who were married. It is also indicated that social relations among married people are usually beneficial and contribute positively to their social relations QOL (Murphy *et al*., 2007).

Furthermore, the results (Table 11) revealed that the aged who had physical disability and were illiterates had a higher social relations QOL mean score (38.1; Males = 38.2 and Females = 38.0) than those who had visual disability and were illiterates (35.9; Males = 36.7 and Females = 35.2). These findings support Dongre and Deshmukh (2012) who found higher mean scores for perceived social relations QOL of illiterates with physical disability than those with visual disability.

Concerning the environmental health QOL domain, the results (Table 13) showed that the aged who had visual disability and were aged 80 years and older had the lowest environmental health QOL mean score (30.8; Males = 31.1 and Females = 30.6). Similarly, the aged who had physical disability and were aged 80 years and older had the lowest environmental health QOL mean score (33.8; Males = 29.2 and Females = 38.5). It could be deduced from these findings that as the age of the respondents increased their environmental health QOL declined.

In support of this assumption that the age of the respondents influenced their environmental health QOL, a Kruskal-Wallis test was used to determine the impact of age on environmental health QOL of the respondents (Table 14). The analyses proved a statistically significant difference between age of the aged with disability on their environmental health QOL (H (2) = 13.5, p = 0.001) with a mean rank of 428.9 (median = 40.0) for those aged 60-69 years, 355.9 (median = 40.0) for those aged 70-79 years and 205.0 (median = 40.0) for those aged 80 years and older. The results fail to confirm the null hypothesis that age has no significant effect on environmental health QOL of the aged with disability. The findings further suggest that the aged with disability had different experiences in environmental health QOL in relation to their age.

Besides, the results (Table 13) of the study revealed that among the aged who had visual disability, those who were separated / divorced had the lowest environmental health QOL mean score (34.0; Males = 32.6 and Females = 35.4). However, the aged who had physical disability and were widowed had the lowest environmental health QOL mean score (36.9; Males = 35.8 and Females = 38.1).

In order to further examine the effect of marital status on environmental health QOL of the aged with disability, a Kruskal-Wallis test was carried out (Table 14). The analysis showed that statistically, a significant difference was found between marital status of the aged with disability on their environmental health QOL (H (2) = 10.5, p = 0.005) with a mean rank of 467.9 (median = 40.0) for those married, 332.1 (median = 40.0) for those separated / divorced and 342.3 (median = 40.0) for those widowed.

These results do not support the null hypothesis that marital status has no significant effect on environmental health QOL of the aged with disability. This means that the aged with disability differed in environmental health QOL regarding their marital status. Furthermore, the analysis confirm Khan *et al*. (2014) finding that the aged who were married had a higher mean score in environmental health QOL than those without partners. Moreover, the analyses support the adapted ICF framework for the study that marital statuses of the aged with disability determine their environmental health QOL (WHO, 1996; WHO, 2001).

With level of education, the findings revealed that the aged who had physical disability and were illiterates had a higher environmental health QOL mean score (38.8; Males = 36.8 and Females = 40.9) than those who had visual disability and were illiterates (37.3; Males = 37.6 and Females = 37.0). These findings support a study by Dongre and Deshmukh (2012) who found the mean scores in environmental health QOL to be higher among illiterates with physical disability than their counterparts with visual disability.

Furthermore, the study (Table 13) found that the aged who had physical disability and lived with the extended family had a higher environmental health QOL mean score (38.6; Males = 38.4 and Females = 38.8) than those who had visual disability and lived with the extended family (36.9; Males = 37.1 and Females = 36.8). These results do not support Khan *et al.* (2014) findings that the aged who lived in joint family and had visual disability had a higher mean score in environmental health QOL than those with physical disability.

Summary

In this chapter, the socio-demographic characteristics and QOL of the aged with disability were discussed. The results revealed that there were a higher proportion of females who were aged from 60-69 years than males with disability. Also, a larger proportion of the females than the males were illiterates. Besides, the results showed that the majority of the males were married as compared with the females who were widowed. Further, majority of the males more than the females were Moslems. Furthermore, the findings indicate that more of the males were Wala as compared with the females who were Dagaaba.

Moreover, this chapter examined the QOL of the aged with disability. The results revealed that the aged who had physical disability and were aged 60 – 69 years had a slightly higher overall QOL mean score than those who had visual disability and were aged 60 – 69 years. It is observed that, despite the little variation in overall QOL of the aged with disability with respect to their age, their overall QOL was generally low.

Also, the study found that among the aged who had visual disability, those who were aged 80 years and older had the lowest overall QOL mean score. Similarly, the aged who had physical disability and were aged 80 years and older had the lowest overall QOL mean score. Deducing from the results, it suggests that the aged with disability differed in their overall QOL in relation to their age.

This study further revealed that among the aged who had visual disability, those who were separated / divorced had had the lowest overall QOL mean score. However, the aged who had physical disability and were widowed had the lowest overall QOL mean score. It could be drawn from these analyses that the overall QOL of the aged with disability was different based on their marital status. Furthermore, the analyses indicated that the aged who had physical disability and lived in the nuclear family had a higher overall QOL mean score than those who had visual disability and lived in the nuclear family.

CHAPTER SIX

PERCEPTIONS OF COMMUNITY MEMBERS ON QUALITY OF LIFE OF THE AGED WITH DISABILITY

Introduction

This chapter presents the socio-demographic characteristics of key informants and adult care-givers. Also, perceptions of the key informants and adult care-givers on quality of life (QOL) of the aged with disability are discussed. The analyses and discussion cover overall QOL, physical health QOL, psychological health QOL, social relations QOL and environmental health QOL of the aged with disability.

Socio-demographic Characteristics of Key Informants and Adult Care-givers

In-depth interviews (IDIs) were conducted on five key informants comprising the Social Welfare Officer of the District Assembly, an 'Imam', a Pastor, a sub-Chief and a Queen mother or 'Magazia' in each of the study Districts. The total number of respondents who were interviewed was 20, comprising five respondents from each of the study districts. Most of the respondents were males (15), many of them were in the age group from 50 – 59 years (9), and most of them were illiterates (12). More than two-thirds were married (16), over half of them were Moslems (12) and the largest ethnic group was Dagaabas (7).

Adult care-givers who lived with the aged with disability were organised into males and females focus group discussions (FGDs) in each of the study Districts. In all, 62 adult care-givers participated in the FGDs. The majority of the respondents were females (33), many of them were in the age category from 30 – 39 years (22) and most of them were illiterates (36). More than half were married (37), over two-thirds of them were Moslems (41), and more than half of them were Dagaabas (34).

Perceptions of Key Informants and Adult Care-givers about Quality of Life of the Aged with Disability

Table 15 presents the perceptions of key informants and adult care-givers about the quality of life of the aged with disability. The themes identified were overall QOL, physical health QOL, psychological health QOL, social relations QOL, and environmental health QOL.

Overall Quality of Life

On the overall QOL of the aged with disability, the respondents perceived that the aged with disability had low overall QOL and rated it in a number of ways all of which indicated that, overall QOL was less than 40 percent. Several views were expressed by the respondents in support of the fact that the aged with disability generally had low overall QOL (Table 15). One of the respondents remarked that:

> *The overall QOL of the aged with disability could be rated as low as 30 percent. This is because they experience painful emotions and complain a lot about their predicament. Also, many of them feel depressed. Again, some of them do not accept their bodily image and appearance; some say they do not know what they have*

done to deserve that kind of punishment from God (Imam aged 52 years, IDI, Jirapa District).

Table 15: Perceptions of Key Informants and Adult Care-givers about Quality of Life of the Aged with Disability

Themes	Sub-themes
Overall QOL	Low overall QOL
	Rate of overall QOL is less than 40 percent
Physical health QOL	Challenges in activities of daily living
	Dependence on medicinal substances and aids
	Impaired mobility
	Pain and discomfort
	Unsatisfactory sleep and rest
	Minimum work capacity
Psychological health QOL	High level of concentration
	Low self-esteem
	Negative feeling
Social relations QOL	Participation in decision making
	Receive social support
Environmental health QOL	Filthy physical environment and accident-prone environment
	Formal and informal financial sources

Table 15 cont'd

	Untidy home environment
	Inaccessibility to health care

Source: Field survey (2016)

Also, a respondent intimated that:

> *The aged with disability have low overall QOL which is not up to 40 percent. This is because they think that they do not enjoy life like we those without disability. Again, they feel their life is not meaningful because they cannot do what they used to do. Besides, they suffer more emotional setbacks due to their dependence on family and community members. In addition, they look more stressful because there are no recreational centres for them to relief off their stress* (A Sub-Chief aged 64 years, IDI, Nadowli-Kaleo District).

Similar sentiments were also expressed by another respondent:

> *The aged with disability have low overall QOL because they are neglected. In most community matters and activities, they do not invite the aged with disability to participate. The aged with disability want people to engage them in conversation but the youth have no time for that. The youth consider the aged with disability as a burden because they depend on them for everything. That is why sometimes the aged with disability wear dirty clothing*

> *because they cannot wash their own clothing especially those who have limitations with their hands and sight* (Catechist aged 67 years, IDI, Wa East District).

Further, in support of the fact that the aged with disability had low overall QOL, a respondent had this to say:

> *The overall QOL of the aged with disability on the scale of 0 - 100 percent, is about 35 percent. One of the reasons is that they defecate just by their windows and it is very bad. This is because there are no toilet facilities for them and they cannot use the dilapidated public toilet facility. Also, they are very poor and cannot buy the needed assistive devices to support them in their daily activities. Look at we ourselves we are also suffering how more the disabled. If things were better for us we could assist them to have a better living condition. Again, they have poor access to health care services and sometimes they are neglected at health facilities* (Mangazia aged 51 years, IDI, Wa East District).

Furthermore, a respondent commented on the low overall QOL of the aged with disability that:

> *The overall QOL of the aged with disability is as low as 25 percent. This is because sometimes the aged with disability fall into gutters and pits dug by community members. Also, people ride motorcycles carelessly and they cause panic and accidents among*

> *the aged with disability when they make their errands. Most of these accidents occur among those who are blind. Again, there are no recreational centres to engage them and you will see none as you move from place to place* (Imam aged 56 years, IDI, Nadowli-Kaleo District).

Physical Health Quality of Life

There are a number of factors which determine the physical health QOL of the aged with disability. In this study, respondents identified a number of key determinants of physical health QOL of the aged with disability. They were: challenges in activities of daily living; dependence on medicinal substances and aids; impaired mobility; pain and discomfort; unsatisfactory sleep and rest; and minimum work capacity (WHO, 1996).

Challenges in Activities of Daily Living

Respondents indicated that the aged with disability had challenges in their daily activities, especially, those who did not have children. The following excerpt expresses the views corroborated by the respondents:

> *The state of most of the aged with disability makes them unable to do their daily activities including cooking, washing and shopping. These make them dependent on family members for their daily survival. So those who do not have children or close relatives suffer a lot in their activities of daily living* (Mangazia aged 51 years, IDI, Wa East District).

Dependence on Medicinal Substances and Aids

Respondents had mixed perceptions about the aged with disability dependence on medicinal substances and aids. Some of the respondents claimed that the aged with disability depended on medicinal substances and assistive devices. However, others indicated that the aged with disability needed medicinal substances and assistive devices but they could not afford them. These were the views in support of the fact that the aged with disability depended on medicinal substances and assistive devices: A respondent had this to say;

> *Some* of *the aged with disability take drugs and even bath or drink herbal medicines. Some of them depend on devices like glasses, walking sticks, and crutches to aid them perform their daily activities* (A Sub-Chief aged 51 years, IDI, Wa Municipality).

Also, a respondent noted that:

> *Some* of *the aged with disabilities who have well to do children get white canes and wheel chairs from their children* (Female FGDs discussant aged 29 years, Nadowli-Kaleo District).

On the other hand, some of the respondents reported that though many of the aged with disability wished to have had medicinal substances and assistive devices, they did not have them. A respondent narrated that:

> *Some of the aged with disability asked people to assist them to move around. This is because they cannot afford the needed assistive devices to move around independently* (Mangazia aged 55 years, IDI, Jirapa District).

Another respondent remarked:

> *My father who had stroke and I sent him to the hospital was not given any assistive devices and I do not have money to buy the required assistive devices for him. He is just suffering in the house there...* (Male FGDs discussant aged 30 years, Wa East District).

Impaired Mobility

Respondents reported that the aged with disability were impaired in their mobility. A respondent revealed that:

> *Because of the disability of the aged, they are unable to move freely around to make ends meet. Women in particular find it strenuous to go to the market to buy household items* (Imam aged 52 years, IDI, Jirapa District).

Another respondent said:

> *The aged with disability find it difficult to move to far places. Those who seek for alms are stuck to some vantage places in the community* (A Sub-Chief aged 51 years, IDI, Wa Municipality).

Pain and Discomfort

Respondents shared their observations that the aged with disability always complain of pain and discomfort. One such observation was narrated thus:

> *The aged with disability feel much pain and discomfort. In most time they complain of joint pains, headaches, bones pains and general body weaknesses. At any time some part of their bodies*

> *would be sick and so they complain all the times about pain and discomfort* (Catechist aged 67 years, IDI, Wa East).

Unsatisfactory Sleep and Rest

Some respondents remarked that the aged with disability were not satisfied with their sleep and rest. The extracts below exemplify respondents' viewpoints on how dissatisfied the aged with disability were with their sleep and rest:

> *The aged with disability are not satisfied with their sleep and rest because they always look sick and we have to support them with medicine to enable them sleep. I have one in my house, some time if he has pains; I have to rub him with some rub to help him sleep in the night. They complain that after they have had some sleep in the night, they wish daytime should come quickly and in the daytime too, they wish evening should come fast* (Female FGDs discussant aged 50 years, Jirapa District).

Another discussant indicated that:

> *The aged with disability are fed up with their sleep and rest. They have much time to sleep and rest because at that state of their lives they cannot do any active work but to sleep and rest* (Male FGDs discussant aged 23 years, Nadowli-Kaleo District).

Minimum Work Capacity

Some respondents indicated that the aged with disability had minimum work capacity. A respondent mentioned that:

> *The aged with disability have little capacity to work. It is God that put them in that state so they accept it in good fate although they are not happy with those conditions* (Mangazia aged 55 years, IDI, Jirapa District).

Again, one of the respondents noted that:

> *Some of the aged with disability try to work but they can't do like those without disability* (Female FGDs discussant aged 38 years, Nadowli-Kaleo District).

Psychological Health Quality of Life

The feeling of good or bad by the aged with disability influences their psychological health QOL (Kaur *et al*., 2015). Respondents in this study pointed out some factors which affected the psychological health QOL of the aged with disability. These factors were: high level of concentration; low self-esteem; and negative feeling (WHO, 1996).

High Level of Concentration

Some of the respondents observed that the aged with disability had a high level of concentration. A discussant noted that:

> *The aged with disability have high level of concentration and keep a lot of things in their mind for long. They scarcely forget about things especially bad treatment against them. They recount their early life. Some too recollect the life they were living before they met their unfortunate situation* (Male FGDs discussant aged 20 years, Nadowli-Kaleo District).

Low Self-esteem

Many of the respondents were of the view that the aged with disability had low self-esteem. The following excerpt shows the view shared by one of them:

> *Looking at their situation, some of them will even tell you they are not human beings. They have low self-esteem and even deny themselves humanity. They don't regard themselves as human beings. But they are able to recall their active days and tell stories about their times. You will be surprise that even when you want to sit by one, they tell you they smell and disqualify themselves* (Social Welfare Officer aged 38 years, IDI, Jirapa District).

Negative Feeling

There were some of the respondents who recounted that the aged with disability had negative feelings. One of the respondents lamented as follows:

> *The aged with disability feel they are left out. They are not cared for by the youth. Nobody has attention for them and you can see it from one community to another. In some places they are left alone. Nobody would go to sit down and talk with them* (Catechist aged 67 years, IDI, Wa East District).

Also, a respondent noted that:

> *The aged with disability feel so sad and dejected. Some even feel if they had died it would have been better because they cannot do what they used to do. They see themselves as burden to their family*

> *members and appear sorrowful* (Male FGDs discussant aged 27 years, Jirapa District).

In addition, a respondent indicated that:

> *Due to the negative feeling some of them have, my father for instance sometimes say that death should consume him to get rest because he would not be healed* (Female FGDs discussant aged 40 years, Wa Municipality).

Social Relations Quality of Life

The respondents in this study observed that the aged with disability participated in decision making and also received social support (WHO, 1996).

Participation in Decision Making

Some respondents reported that the aged with disability occasionally participated in decision making, especially, when there was the need for historical facts about their communities. One of the respondents narrated:

> *Sometimes we involve the aged with disability in decision making. During our women groups meetings, we sometimes call them to come and tell us historical facts and stories* (Mangazia aged 55 years, IDI, Jirapa District).

In line with the view above, another respondent intimated that:

> *If you want history, go to the aged with disability. They have rich history about life and they tell us the truth about life* (Mangazia aged 42 years, IDI, Wa Municipality).

Receive Social Support

The respondents indicated that the aged with disability received support including food, clothing, money and errand services from their family members, community members and religious bodies. A respondent shared his view:

> *In this community due to poverty we rarely give money to the aged with disability but we sometimes support them with food items like maize, rice and some even cook for them* (A Sub-Chief aged 51 years, IDI, Wa Municipality).

Also, a respondent said that:

> *It is like that once you have a disabled aged person in your home you cannot abandon him / her. Family members especially the children of the aged with disability do take care of them. However, those without children are left to struggle on their own with little support from extended family members* (Mangazia aged 51 years, IDI, Wa East District).

Other respondent revealed occasions that necessitated the provision of social support to the aged with disability and said that:

> *We do not have enough to help the aged with disability except Zakat which is occasional especially during fasting* (Imam aged 52 years, IDI, Jirapa District).

In support of the above view, a respondent also pointed to a religious institution that provides support:

> *As a church, sometimes we provide food, cash, clothing and other things to the aged with disability. Mostly these supports are provided during Christmas and Easter seasons. We also have some individuals in the church who once in a while donate some few things to them* (Pastor aged 40 years, IDI, Wa Municipality).

Environmental Health Quality of Life

An aged-friendly environment plays an important role in impacting QOL of the aged with disability (Tiraphat *et al*., 2017). In this study, a number of environmental factors emerged from respondents' perceptions about the environmental health QOL of the aged with disability. They were: filthy physical environment and accident-prone environment; formal and informal financial sources; untidy home environment; and inaccessibility to health care (WHO, 1996).

Filthy Physical Environment and Accident-Prone Environment

Respondents recounted that the aged with disability lived in filthy environment and sometimes they are involved in accidents. A respondent narrated that:

> *The aged with disability have a bigger challenge with toilet facilities. The toilets that we have are always dirty and not user-friendly for people with disabilities. How do you expect an aged with visual disability to use a dirty toilet with human faeces and*

> *urine flowing everywhere? Because of this, they ease just by their windows and little is done about their condition* (Imam aged 52 years, IDI, Jirapa District).

Similar sentiments were also projected by a respondent on accidents that the aged with disability got into because of their accident-prone environment:

> *At times the aged with disability fall into gutters and are knocked down by motorists. For instance most of the blind do not have white canes and due to that people don't always notice earlier that they are blind. This cause most accidents involving the visually impaired people* (Imam aged 56 years, IDI, Wa Municipality).

Formal and Informal Financial Sources

The study participants described that the aged with disability had both formal and informal sources of income. However, they indicated that these incomes were irregular and meagre. One of the respondents recounted that:

> *Most of the aged with disability benefit from the LEAP programme but the amount that they receive is meagre and does not meet their financial needs. That is why you can see some of them going round seeking for alms* (Social Welfare Officer aged 51 years, IDI, Wa Municipality).

Also, some respondents pointed to family members and other members of the community as sources of financial help for the aged with disability. One of the respondents narrated that:

> *The aged with disability are dependent on their family members and when they have financial challenges it is their relatives who help them. Also, some community members do offer them financial support on charity or as alms* (Male FGDs discussant aged 25 years, Wa East District).

Untidy Home Environment

Most respondents mentioned that the aged with disability lived in untidy home environment as pointed in the excerpts below:

> *The aged with disability have challenges with their activities of daily living including; fetching of water, sweeping and washing of clothing. Particularly, those who do not have female children at home always wear dirty dress because they cannot wash their own clothing. Those who are bedridden are worse off because they get little attention from their family members especially those who are widowed* (Male FGDs discussant aged 26, Jirapa District).

This was also corroborated by another respondent that:

> *Most of the aged with disability ease around their environment anyhow. Majority of them go through hell when they want to do toilet due to the non availability of toilet facilities in their households* (A Sub-Chief aged 64 years, IDI, Nadowli-Kaleo District).

Inaccessibility to Health Care

The respondents identified a number of challenges that the aged with disability encountered regarding their access to health care. These included: health facilities being far away; unfair treatment at health facilities; and extra cost even when using a valid NHIS card. One of the respondents pointed out that:

> *We have a clinic in this community but even the able people suffer in getting services. The process of accessing health care causes much financial burden to the aged with disability. In most cases, they have to pay the transportation fares for their guides to lead them to the health facility. Again, there are no ramps to help those on wheelchairs. Besides, some of the health care personnel are not caring and they pay little attention to the aged with disability* (A Sub-Chief aged 51 years, IDI, Wa Municipality).

Another respondent narrated the challenges that the aged with disability encountered:

> *When the aged with disability go to hospital they do not give them special treatment, they take care of them but they also follow the normal queues. Also, medical bills scare most of them from seeking medical attention because the NHIS does not cover all their medical conditions and they have to pay cash for some of their medications* (Female FGDs discussant aged 25 years, Wa East District).

Discussion of Results

It emerged from the data analysis that the aged with disability were perceived to have low overall QOL. Similarly, a number of studies have found that the aged with disability had low overall QOL (Ganesh *et al.*, 2014; Datta *et al.*, 2015; Cao *et al.*, 2016). One of the reasons why the aged with disability were observed to have low overall QOL could be as a result of the incidence of poverty in the Upper West Region since seven in every ten people are poor (Ghana Statistical Service, 2014a).

In relation to physical health QOL, the study found that the aged with disability were perceived to have challenges in their daily activities. This theme is similar to Amosun, Nyante and Wiredu (2013) revelation that the aged with disability had restrictions in their daily activities including going outside the house, engagement in household work, and participation in family and social activities. It is indicated that when the aged with disability have challenges in performing their daily activities, they become dependent on their family members and this adversely affects their physical health QOL (Goswami, 2013). Also, the results revealed that the aged with disability were perceived to always complain of pain and discomfort. As noted by Kwong, Lai and Liu (2014), pains, for instance, leads to poor sleep quality which negatively affects the physical health QOL of the aged with disability.

Regarding psychological health QOL, the results showed that the aged with disability were perceived to have low self-esteem. This theme of low self-esteem is supported in Dongre and Deshmukh (2012) findings that the aged with disability had a feeling of worthlessness, hopelessness, and loneliness even after completing their traditional household responsibilities. Low self-esteem negatively affects the psychological health QOL of the aged with disability because they are not capable of identifying their strengths in a satisfactory manner (Goswami, 2013). In addition, low self-esteem is known to be the most common psychological disorder which reduces the QOL among people with disabilities (Dongre & Deshmukh, 2012; Cao *et al.*, 2016).

On issues of social relations QOL, it was found that the aged with disability were perceived to occasionally participate in decision making especially when there was the need for historical facts about their communities. Dongre and Deshmukh (2012) in their study found that some of the aged with disability who had greater cultural and social resources sometimes were invited in decision making concerning the development of their communities. Also, Alma *et al.* (2011) observed that the aged with disability participated less in decision making and recreational activities in their communities. However, it is argued that the aged with disability who participate in socio-economic activities enhance their social relations QOL (Khan & Tahir, 2014; Gouveia, Matos & Schouten, 2016).

This study has also revealed that the aged with disability were perceived to receive support including food, clothing, money and errand services from their family members, community members and religious bodies. These fully confirm the traditional Ghanaian family norm of providing support to the aged (Mba, 2007b; Makoni, 2008). The perceived support received by the aged with disability is part of exchanges, obligations, and reciprocal patterns among individuals, family and community members in traditional societies (Anjos *et al*., 2015).

For environmental health QOL, evidence from the study indicated that the aged with disability were perceived to live in untidy home environments. This theme is similar to those found by Kwong *et al.* (2014) that the aged with disability lived in unhealthy environmental conditions where there were no household toilet facilities and even in places where there were public toilet facilities, they were normally dirty. One of the possible reasons why the aged with disability were perceived to live in untidy home environments could be due to the limited access to sanitation facilities and amenities by the elderly in Ghana (Ghana Statistical Service, 2013a). It is indicated that only 13 percent of the elderly in Ghana use a water closet toilet facility which is the most improved type of toilet facility (Ghana Statistical Service, 2013a). Further, this study found that the aged with disability were perceived to have unfair treatment at health facilities. The perceived unfair treatment of the aged with disability at health facilities affirms the position by the social model of disability that disability is a social construct and people with disability are subjected to discrimination and segregation (Mitra, 2006; Murphy *et al*., 2007). These results further support Rugoho and Maphosa (2017) assertion that health workers have negative attitudes towards people with disabilities.

Summary

This chapter focused on perceptions of community members on QOL of the aged with disability. It emerged from the data analysis that the aged with disability were perceived to have low overall QOL. In relation to physical health QOL, the study found that the aged with disability were perceived to have challenges in their daily activities. Regarding psychological health QOL, the results showed that the aged with disability were perceived to have low self-esteem. On issues of social relations QOL, it was found that the aged with disability were perceived to occasionally participate in decision making especially when there was the need for historical facts about their communities.

This study has also revealed that the aged with disability were perceived to receive support including food, clothing, money and errand services from their family members, community members and religious bodies. For environmental health QOL, evidence from the study indicated that the aged with disability were perceived to live in untidy home environments. Further, this study found that the aged with disability were perceived to have unfair treatment at health facilities.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the study, summary of main findings, conclusions, recommendations, contributions to knowledge, strengths and limitations of the study and areas for further research.

Summary of the Study

The main objective of this study was to assess the perceived overall Quality of Life (QOL) of the aged with disability in the Wa Municipality, Nadowli-Kaleo, Jirapa and Wa East districts in the Upper West Region of Ghana. The specific objectives were to:

1. analyse the perceptions of the aged with disability about their physical health QOL;
2. examine the psychological health QOL of the aged with disability;
3. analyse the social relations QOL of the aged with disability;
4. examine the environmental health QOL of the aged with disability; and
5. explore the perceptions of community members about QOL of the aged with disability.

In order to achieve the objectives of the study, the adapted ICF framework was used to guide the study. The cross-sectional survey design was employed for the study. Quantitative and qualitative data were collected concurrently from 1st November to 28th December, 2016 in the study Districts. A census was conducted on the aged with disability. Purposive sampling technique was used to select five key informants from each district for the IDIs while FGDs were conducted among adult care-givers who lived with the aged with disability. The research instruments used for data collection were questionnaires, IDIs and FGDs guides. The study surveyed 810 respondents, interviewed 20 key informants (IDIs) and 62 adult care-givers participated in the FGDs.

The SPSS version 20 and STATA version 14 were used in analysing the quantitative data and the Kruskal -Wallis statistical tests was used to determine the significant effect of socio-demographic characteristics of the aged with disability on their QOL. The qualitative data were analysed by identifying and clustering themes from the responses for a written narrative account.

Summary of Main Findings

It emerged from the analyses that the overall QOL mean scores of the aged with disability were generally low. Also, the study found that the aged who had physical disability and were aged 60 – 69 years had slightly higher overall QOL mean score than those who had visual disability and were aged 60 – 69 years. Besides, the findings showed that the aged who were aged 80 years and older had the lowest overall QOL mean scores. In addition, these analyses revealed that among the aged with visual disability, those who were separated / divorced had the lowest overall QOL mean score. Further, the study showed that the aged who had physical disability and were widowed had the lowest overall QOL mean score. Furthermore, the results indicated that the aged who had physical disability and lived in the nuclear family had a higher overall QOL mean score than those who had visual disability and lived in the nuclear family.

In view of the physical health QOL domain, the study found that the aged with disability who were aged 80 years and older had the lowest physical health QOL mean scores. Again, the analyses revealed that among the aged with visual disability, those who were separated / divorced had the lowest physical health QOL mean score. However, the study further indicated that the aged who had physical disability and were widowed had the lowest physical health QOL mean score. In addition, evidence from the findings showed that the aged who had physical disability and were illiterates had a higher physical health QOL mean score than those who had visual disability and were illiterates.

Under the psychological health QOL domain, the study observed that the aged with disability who were aged 80 years and older had the lowest psychological health QOL mean scores. Again, the study found that among the aged with visual disability, those who were separated / divorced had the lowest psychological health QOL mean score. In contrast, the analyses revealed that the aged who had physical disability and were widowed had the lowest psychological health QOL mean score. Further, the study showed that the aged who had physical disability and were illiterates had a higher psychological health QOL mean score than those who had visual disability and were illiterates.

In relation to the social relations QOL domain, the study revealed that the aged with disability who were aged 80 years and older had the lowest social relations QOL mean scores. Again, the study found that, the aged who were separated / divorced had the lowest social relations QOL mean scores. Furthermore, the analyses revealed that the aged who had physical disability and were illiterates had higher social relations QOL mean score than those who had visual disability and were illiterates.

Concerning the environmental health QOL domain, the results showed that the aged with disability who were aged 80 years and older had the lowest environmental health QOL mean scores. Additionally, the results revealed that among the aged with visual disability, those who were separated / divorced had the lowest environmental health QOL mean score. However, the study found that the aged who had physical disability and were widowed had the lowest environmental health QOL mean score. Further, the findings showed that the aged who had physical disability and were illiterates had a higher environmental health QOL mean score than those who had visual disability and were illiterates. Furthermore, the study brought out that the aged who had physical disability and lived with the extended family had a higher environmental health QOL mean score than those who had visual disability and lived with the extended family.

In terms of the perceptions of community members on the overall QOL of the aged with disability, the findings showed that respondents perceived the aged with disability to have had low overall QOL. Also, the study discovered that respondents rated the overall QOL of the aged with disability in diverse ways, yet the overall QOL ratings were categorically less than 40 percent. Again, the findings from the qualitative analyses revealed that respondents identified a number of key determinants of physical health QOL of the aged with disability in their communities. These determinants were: challenges in activities of daily living; dependence on medicinal substances and aids; impaired mobility; pain and discomfort; unsatisfactory sleep and rest; and minimum work capacity.

From the study, factors which affected the psychological health QOL of the aged with disability were high level of concentration, low self-esteem and negative feeling. On social relations QOL, the analyses indicated that the aged with disability participated in decision making and received social support in their communities. Furthermore, the study found that factors that affect the environmental health QOL of the aged with disability were filthy physical environment and accident-prone environment, formal and informal financial sources, untidy home environment and inaccessibility to health care.

Conclusions

Based on the summary of the main findings, the following conclusions were drawn:

- The study concludes that the overall QOL of the aged with disability was generally low.
- Also, it was noted that, the aged with disability who were aged from 60 – 69 years had the highest overall QOL while those who were aged 80 years and older had the lowest overall QOL. This means that when the age of the aged with disability increases their overall QOL declines.
- Again, the study concludes that, the aged with disability who were married had the highest overall QOL while those who were separated / divorced and the widowed had the lowest overall QOL for visual disability and physical disability respectively. The highest overall QOL of the aged with

disability who were married could be due to the social support they got from their spouses.

- In addition, the aged who had physical disability and lived in the nuclear family had a higher overall QOL than those who had visual disability and lived in the nuclear family.
- Finally, the aged with physical disability had a higher overall QOL than those with visual disability.

Recommendations

Based on the findings of the study, the following recommendations were made:

- The study revealed that the overall QOL of the aged with disability was generally low and this reflected in their physical, psychological, social relations and environmental health QOL. The study recommends that family members, the government, and non-governmental organisations should endeavour to provide physical, psychological, social relations and environmental health needs of the aged with disability. This could be provision of food, medical aids, counselling and leisure centres for the aged with disability. Besides, the government of Ghana could ensure that all health facilities have geriatric wards and the required health personnel to provide the health needs of the aged with disability. Further, the Department of Social Welfare and Community Development, National Council for Persons with Disability (NCPD) as well as the Wa Municipal, Nadowli-Kaleo, Jirapa and Wa East district assemblies should put punitive measures in place against people who call PWDs derogatory names due to their disability.

- The study found that the aged with disability who were aged 80 years and older had the lowest mean scores in overall QOL. It is necessary that family members, the government, non-governmental organisations and benevolent individuals should provide special attention in the form of special diet and required assistive devices for such people with disability. Also, family members should improve upon their social relationship with the aged with disability who are aged 80 years and older.
- Again, the government, non-governmental organisations and benevolent individuals should build geriatric homes to care for the aged with disability who are widowed and separated / divorced in order to improve upon their overall QOL.
- Since the aged with physical disability had a higher overall QOL than those with visual disability, family members should provide close human assistance to aid the activities of the aged with visual disability. Despite this, there should be public education to avoid marginalisation of the aged with disability.

Contributions to Knowledge

- Some aspects of the results have confirmed earlier findings on QOL of the aged with disability. However, other results of the study have contradicted existing findings and thus have contributed to the literature on QOL of the aged with disability. For instance, the study found that the aged who had visual disability and were separated / divorced had the lowest physical health QOL as compared to those who were widowed or married.

- The study also makes attempt to fill the literature gap on QOL of the aged with disability in Ghana. In this study, the results revealed that the overall QOL of the aged with disability were generally low.
- In addition, the study adapted the ICF framework in assessing the perceived QOL of the aged with disability. This framework proved that socio-demographic characteristics of the aged with disability influenced their QOL. Therefore, the framework could guide other researchers to conduct similar studies in the area of QOL.
- Further, this study has supported the need to fully implement the persons with Disability Act, Act 715 of 2006 so as to improve the QOL of the aged with disability.

Strengths and Limitations of the Study

- A number of strengths of this study have been identified. First, the study employed a census which covered almost all the aged with disability on the lists of Persons with Disabilities (PWDs) in each of the districts. The study collected data from 810 respondents who were large enough to produce high quality results. Further, the study used both quantitative and qualitative methods which enriched the findings of the study. The qualitative findings for example provided deeper understanding of QOL of the aged with disability.

- However, one of the limitations of the study was that the target respondents were limited to only the aged with visual and physical disability and therefore, the results cannot be generalised for the entire population of the aged with disability in the Upper West Region. Also, since the target respondents were the aged with disability, the findings of the study cannot be generalised for all the aged people in the study districts.

Areas for Further Research

- A comparative research is needed on the QOL of the aged with disability who are benefiting from the LEAP programme and the aged without disability.
- Again, research is needed to find out whether there is the need to set up geriatric care homes in order to improve upon the overall QOL of the aged with disability in the Upper West Region.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR SURVEY

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF POPULATION AND HEALTH

TOPIC: PERCEIVED QUALITY OF LIFE OF THE AGED WITH DISABILITY IN SELECTED DISTRICTS IN THE UPPER WEST REGION OF GHANA.

The main objective of this study was to assess the perceived overall quality of life of the aged with disability in the Wa Municipality, Nadowli-Kaleo, Jirapa and Wa East districts in the Upper West Region of Ghana. All the information recorded in this questionnaire is for academic purposes and you are assured of confidentiality and anonymity of the information that you provide. Please, your participation in this study is voluntary; however, your decision to participate will be highly appreciated. Thank you for your cooperation.

Name of interviewer:

Municipality / District:

100	**Socio-demographic characteristics**	**Circle options**	
101	Sex	1	Male
		2	Female
102	Age		In completed years

103	Which ethnic group do you belong?	1	Waala
		2	Dagaaba
		3	Sissala
		4	Moshi
		5	Other (Specify ………………………)
104	What is your religious affiliation?	1	Christian
		2	Moslem
		3	Traditionalist
		4	No religion
		5	Other (Specify ………………………)
105	What is your current marital status?	1	Never married
		2	Married
		3	Separated/ Divorced
		4	Widowed
		5	Other (Specify ………………………)
106	What is your highest level of education?	1	None
		2	Primary
		3	Middle/JHS school
		4	SHS/Vocational/Technical

		5	Post Secondary/Tertiary
		6	Other (Specify ………………………)
107	What is your current employment status?	1	Self employed
		2	Unemployed
		3	Retired
		4	Other (Specify ………………………)
108	Type of disability	1	Visual disability
		2	Physical disability
109	Do you have your own biological child/children still alive?	1	Yes
		2	No →**Skip to Q111**
110	How many children ever born to you are still surviving?	1	5 and more
		2	4
		3	3
		4	2
		5	1
111	What is your living arrangement?	1	Alone
		2	Nuclear family
		3	Extended family
		4	Other (Specify ………………………)

Please read each question, assess your feelings within the last ‘four weeks’ and circle the number on the scale for each question that gives the best answer.			
200	**Overall quality of life and general health**		
201	How would you rate your quality of life?	1	Very poor
		2	Poor
		3	Neither poor nor good
		4	Good
		5	Very good
202	How satisfied are you with your health?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
300	**Physical health quality of life domain**		
301	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	An extreme amount
		2	Very much
		3	A moderate amount
		4	A little
		5	Not at all

302	How much do you need any medical treatment to function in your daily life?	1	An extreme amount
		2	Very much
		3	A moderate amount
		4	A little
		5	Not at all
303	Do you have enough energy for everyday life?	1	Not at all
		2	A little
		3	Moderately
		4	Mostly
		5	Completely
304	How well are you able to get around?	1	Very poor
		2	Poor
		3	Neither poor nor good
		4	Good
		5	Very good
305	How satisfied are you with your sleep?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied

306	How satisfied are you with your ability to perform your daily living activities?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
307	How satisfied are you with your capacity for work?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
400	**Psychological health quality of life domain**		
401	How much do you enjoy life?	1	Not at all
		2	A little
		3	A moderate amount
		4	Very much
		5	An extreme amount
402	To what extent do you feel your life to be meaningful?	1	Not at all
		2	A little
		3	A moderate amount
		4	Very much

		5	An extreme amount
403	How well are you able to concentrate?	1	Not at all
		2	A little
		3	A moderate amount
		4	Very much
		5	An extreme amount
404	Are you able to accept your bodily appearance?	1	Not at all
		2	A little
		3	Moderately
		4	Mostly
		5	Completely
405	How satisfied are you with yourself?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
406	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	Always
		2	Very often
		3	Quite often
		4	Seldom
		5	Never

500	**Social relations quality of life domain**		
501	How satisfied are you with your personal relationships?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
502	How satisfied are you with your sex life?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
503	How satisfied are you with the support you get from your friends / people in general?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
600	**Environmental health quality of life domain**		
601	How safe do you feel in your daily life?	1	Not at all
		2	A little

		3	A moderate amount
		4	Very much
		5	Extremely
602	How healthy is your physical environment?	1	Not at all
		2	A little
		3	A moderate amount
		4	Very much
		5	Extremely
603	Have you enough money to meet your needs?	1	Not at all
		2	A little
		3	Moderately
		4	Mostly
		5	Completely
604	How available to you is the information that you need in your day-to-day life?	1	Not at all
		2	A little
		3	Moderately
		4	Mostly
		5	Completely
605	To what extent do you have the opportunity for leisure activities?	1	Not at all
		2	A little
		3	Moderately
		4	Mostly

		5	Completely
606	How satisfied are you with the conditions of your living place?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
607	How satisfied are you with your access to health services?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied
608	How satisfied are you with your transportation needs?	1	Very dissatisfied
		2	Dissatisfied
		3	Neither satisfied nor dissatisfied
		4	Satisfied
		5	Very satisfied

APPENDIX II: IN-DEPTH INTERVIEW GUIDE

UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF POPULATION AND HEALTH

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Name of interviewer:

Municipality / District:

Socio-demographic characteristics

- Please, could you tell me about yourself? **Probe:** age, ethnicity, religion, marital status, highest educational level and number of children etc.

Overall quality of life and general health

- How would you rate the quality of life of the aged with disability in your community? **Probe** on reasons for rate of their quality of life.
- How satisfied are the aged with disability on their health in your community? **Probe** on reasons for how satisfied they are on their health.

Physical health quality of life domain

- How do you perceive the physical health quality of life of the aged with disability in your community? **Probe** on how their physical health determines their: activities of daily living, dependence on medicinal substances and medical aids / assistive devices, energy and fatigue, mobility, pain and discomfort, sleep and rest, and work capacity.

Psychological health quality of life domain

- How do you perceive the psychological health quality of life of the aged with disability in your community? **Probe** on their: Bodily image and appearance, negative feelings, positive feelings, self-esteem, spirituality / religion / personal beliefs, and thinking, learning, memory and concentration.

Social relations quality of life domain

- What is your perception about the social relations quality of life of the aged with disability in your community? **Probe** on their: personal relationships, social support, participation in decision making, and sexual activity.

Environmental health quality of life domain

- What is your perception about the environmental health quality of life of the aged with disability in your community? **Probe** on their: financial resources, transportation, participation in and opportunities for recreation, health and social care, freedom, physical safety and security.

APPENDIX III: FOCUS GROUP DISCUSSION GUIDE

UNIVERSITY OF CAPE COAST
COLLEGE OF HUMANITIES AND LEGAL STUDIES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF POPULATION AND HEALTH

TOPIC: PERCEIVED QUALITY OF LIFE OF THE AGED WITH DISABILITY IN SELECTED DISTRICTS IN THE UPPER WEST REGION OF GHANA.

The main objective of this study was to assess the perceived overall quality of life of the aged with disability in the Wa Municipality, Nadowli-Kaleo, Jirapa and Wa East districts in the Upper West Region of Ghana. All the information recorded in this interview is for academic purposes and you are assured of confidentiality and anonymity of the information that you provide. Please, your participation in this study is voluntary; however, your decision to participate will be highly appreciated. Thank you for your cooperation.

Name of interviewer:

Municipality / District:

Socio-demographic characteristics

- Please, could you tell me about yourself? **Probe:** age, ethnicity, religion, marital status, highest educational level and number of children etc.

Overall quality of life and general health

- How would you rate the quality of life of the aged with disability in your community? **Probe** on reasons for rate of their quality of life.
- How satisfied are the aged with disability on their health in your community? **Probe** on reasons for how satisfied they are on their health.

Physical health quality of life domain

- How do you perceive the physical health quality of life of the aged with disability in your community? **Probe** on how their physical health determines their: activities of daily living, dependence on medicinal substances and medical aids / assistive devices, energy and fatigue, mobility, pain and discomfort, sleep and rest, and work capacity.

Psychological health quality of life domain

- How do you perceive the psychological health quality of life of the aged with disability in your community? **Probe** on their: Bodily image and appearance, negative feelings, positive feelings, self-esteem, spirituality / religion / personal beliefs, and thinking, learning, memory and concentration.

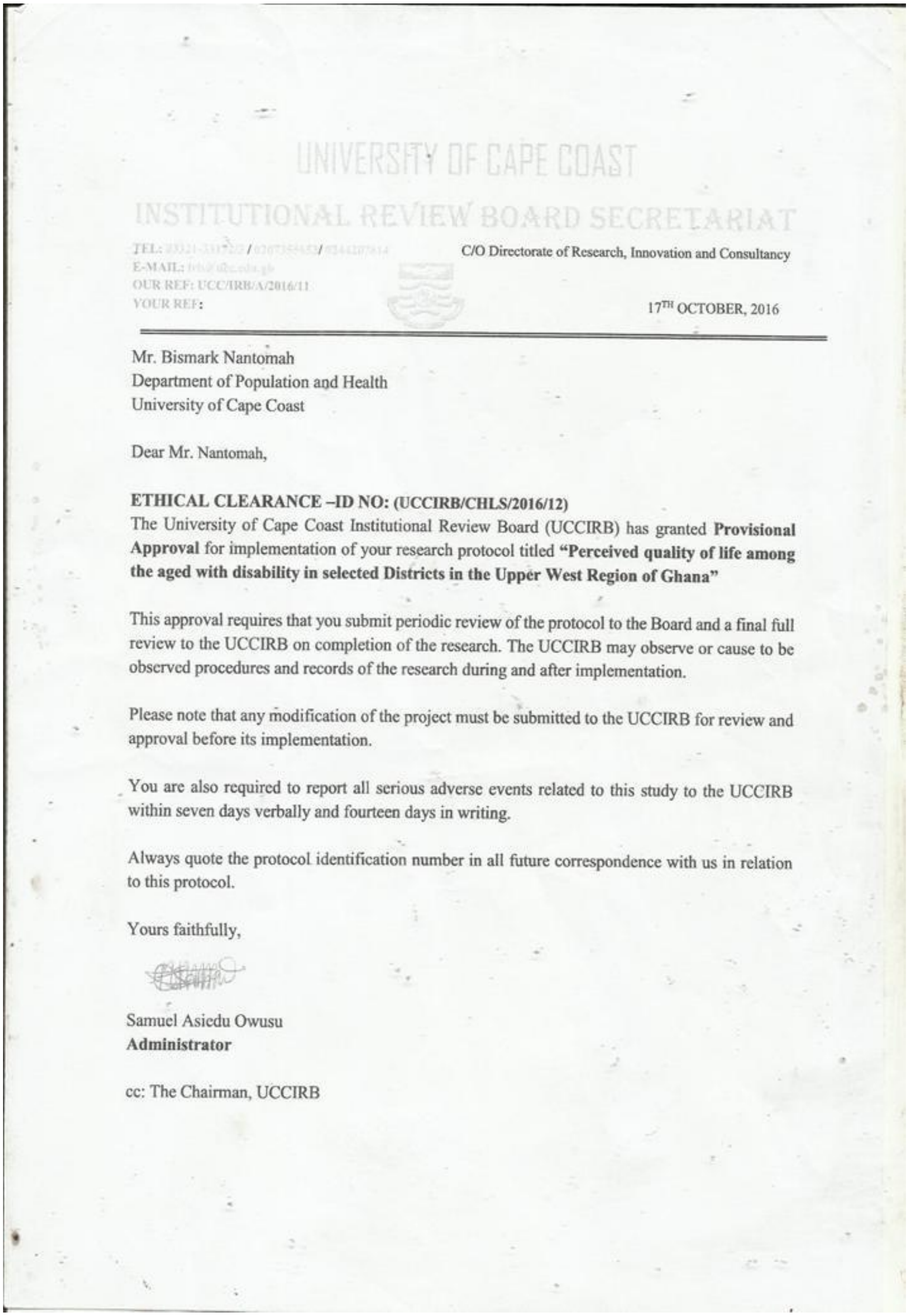
Social relations quality of life domain

- What is your perception about the social relations quality of life of the aged with disability in your community? **Probe** on their: personal relationships, social support, participation in decision making, and sexual activity.

Environmental health quality of life domain

- What is your perception about the environmental health quality of life of the aged with disability in your community? **Probe** on their: financial resources, transportation, participation in and opportunities for recreation, health and social care, freedom, physical safety and security.

APPENDIX IV: ETHICAL CLEARANCE



UNIVERSITY OF CAPE COAST
INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: [illegible] / [illegible]/ [illegible]
E-MAIL: [illegible]
OUR REF: UCC/IRB/A/2016/11
YOUR REF:

C/O Directorate of Research, Innovation and Consultancy

17TH OCTOBER, 2016

Mr. Bismark Nantomah
Department of Population and Health
University of Cape Coast

Dear Mr. Nantomah,

ETHICAL CLEARANCE –ID NO: (UCCIRB/CHLS/2016/12)
The University of Cape Coast Institutional Review Board (UCCIRB) has granted **Provisional Approval** for implementation of your research protocol titled **"Perceived quality of life among the aged with disability in selected Districts in the Upper West Region of Ghana"**

This approval requires that you submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

Please note that any modification of the project must be submitted to the UCCIRB for review and approval before its implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu
Administrator

cc: The Chairman, UCCIRB