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COLLEGE OF HEALTH SCIENCES

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**FACTORS INFLUENCING HEALTH AND SELF-CARE OF THE ELDERLY IN
MADINA MUNICIPALITY, GREATER ACCRA REGION, GHANA**

BY

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DECLARATION

I, **Jennifer Paula Opio**, declare that I have clearly read the policy of University of Ghana on Plagiarism and hereby affirm that this study “Factors Influencing Health and Self-Care of The Elderly in Madina Municipality, Greater Accra Region, Ghana” is my own original work. It has never been submitted to any other institution for any award of either another qualification, in what so ever nature either in full or part. Throughout the work I have appropriately acknowledged all sources used in its compilation.

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Jennifer Paula Opio

(Student)

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Date

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Dr Franklin Glozah

(Academic Supervisor)

.....

Date

DEDICATION

I dedicate this work to my beloved Late Father Mr. Faustino .M. Opio, My late mother Matilida Tarapkwe, My Family members, My beloved husband Dr. Philip Govule, my lovely daughter immaculate Asianzu Faith, my beloved sons King Maximillian Ayiko, Kyle Gift Mungulema, my brothers Godfrey Mawadri Opio, Lawrence Lagu opio, Lazarus Azuruku opio, my sisters Joyce Amadrio Opio, Santina Ondoia, Rosemary Laguna.

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May the Almighty God reward you all abundantly!!

LIST OF ABBREVIATIONS

ADL	Activities of Daily Living
EA	Enumeration Area
GDHS	Ghana Demographic Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
GH¢	Ghanaian cedi
LMIC	Low-Middle-Income-countries
NCD	Non-communicable diseases
SASE	Self-care Ability Scale for the Elderly
SAGE	Study on global AGEing and adult health
SPSS	Statistical Package for the Service Solutions
WHO	World Health Organization
UNFPA	United Nations Population Fund/ (Formerly United Nations Fund for Population Activities)
P4HPT	Partnership for Health professionals Training in African Universities

OPERATIONAL DEFINITIONS

The Key definitions used as key notions in this study are hereby presented as conceptualised in the elderly population for the purpose of clarity and consistency. These could be:

SELF-CARE	“The practice of activities that maturing and mature persons initiate and perform, within time frames, on their own behalf in the interests of maintaining life, healthful functioning, continuing personal development, and well-being, through meeting known requisites for functional and developmental regulations” (Orem, 2001, p. 461).
SELF-EFFICACY:	Perceived confidence in ones ability to conduct self-care interventions and about the future (Bandura, 1977; Frank-strombod & Olsen, 2004).
SELF-ESTEEM:	Trait or global self-esteem is a “personality variable that represents the way people generally feel about themselves” (Brown & Marshall, 2006, p. 4).
CHRONIC CONDITIONS:	“Health problems requiring ongoing management over a period of years, even decades” (WHO as cited in Day, Paul, Williams, Smeltzer & Bare, 2007, p.149). They include: Non communicable diseases, some mental disorders, and, ongoing structural impairments such as joint disorders. In this research, the terms chronic condition will be used interchangeably with chronic illness, and chronic disease.

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ABSTRACT

Background: The growth of the aging population is known to lead to an upsurge in problems for the older people and to the society. A considerable proportion of older adults are experiencing added challenges in maintaining their health. With the eroded traditional family support systems and no formal institutions to take care of the elderly, it is not known what self-care interventions if any exist in the community and if so what factors influence their presence or absence. Self-care interventions have been highlighted as the main means contributing to a better health of older adults. The study investigated the association between lifestyle, socio-demographic determinants on perceived health and self-care, describe the health and self-care interventions and finally perceived Health state characteristics of the elderly.

Methodology: The study used a descriptive cross-sectional design. A total sample size of 375 elderly persons (60 year and above), living in Madina sub-district of La-Nkwantanag Municipal assembly completed a WHO-SAGE (Study of Global Aging) adapted structured questionnaire designed for this study. Descriptive statistics was used for analyzing the data and binary logistic regression was used to determine the relationship between lifestyle, socio-demographic, self-care on Health status.

Results: The results showed no significant relationship between sex of the respondent and Self-reported Health status, however significant relationship were noted between Age and poor health status with more advanced elderly less likely able to report selves with Good health status. Married elderly persons were among those reported with Good health status. Elderly from traditional extended families were more by about twice likely to report having good health status. Older persons highly participating in religious activities were generally reported in good self-reported health status and those living a responsible self-care were about 46 times more likely to report selves as with a good health status than those with abandoned self-care. Chronic Illness was prevalent among elderly at 72.5%.

Conclusion: The present study has contributed significantly to the current literature on Elderly population, particularly as concerns predictors of Health and Self-care. It provides the best possible evidence on elderly research. Hopefully early health promotional interventions targeting the elderly should be prioritized at all levels.

CHAPTER ONE

1.0. INTRODUCTION

1.1. Background

Ageing is an unavoidable biological development. The world population is experiencing significant increases in ageing (UNDESA, 2011). An increasing population of persons aged at least 60 years or more in the world is seen (UNDESA, 2013; UN, 2015; WHO, 2017); and have been predicted to upsurge from 800 million to about two (2) billion by the year 2050 (UN, 2015). With increasing life expectancy and declining fertility in the last decades, it is anticipated that in 2050, the proportion of the elder globally (WHO, 2014). Aging of the population is an emerging challenge of the world today for 21st century. The growth of the aging population are known to lead to an upsurge in problems of the older people and their challenges in the society hence reflects the public health implication of looking into their issues (Norazizan and Salleh, 2012).

In Ghana as seen in the other countries globally, the number of older adults was noted to have increased by seven folds since 2010 yet not much has been carried out in the area of health and self-care of older people. Ghanaians are particularly found to be living longer as compared to other countries. The composition of population older than 60 is expected to reach at least 12% by 2050, from about a proportion of 7% in 2010 (WHO, 2014).

Though ageing is largely viewed as resulting from longer as well as generally healthier lives of individuals in old age there also exist chronic ill-health or non-communicable diseases which come about due to degeneration or loss of functional status at older ages (UNDESA, 2013; WHO, 2017). Relatively good health status characterized by less prospects of both ill-health and untimely death in the older adults has been linked to the self-care activities that includes nutrition, personal

hygiene, and physical exercises, chronic illness or other related health-care problems (Shin, Kim & Choi, 2016). A considerable proportion of older adults are experiencing added challenges in maintaining their health. Good health enables an individual including an older adult to maximize his or her full potential, whereas the existence of ill-health can have a devastating impact on achieving this important health-related goal. Aging has to be looked at largely as that accompanied with a less likelihood of ill-health, possibly above optimal of functioning and engaged actively with life (Rowe, et al., 1998; WHO, 2014).

Although disease and injury remain unavoidable possibilities, the individual has the chance to a greater extent to influence his own health through daily self-care practices that translate into action or non-action. The scientific world recognizes the role of relationships in the social world and involvement including self-care interventions that promote better health effects (Putnam, 2000).

This development challenges, the social and healthcare system relies on the ability of older people to take care of themselves. The practice of Self-care is essential to stimulation of health and prevent development of diseases in the elderly. These care practices aid the older adults daily functioning, individual development, and his/her well-being (Orem, 2001). Self-care of the elderly is a complex matter characterized by different sources and analyzed in relation to a number of factors (Dale, et al., 2012; Backman and Hentinen, 2001).

Self-care and health promotion have originally been linked together with components of maintenance of one's health (Orem, 1995). As adults advance in age the conduct of Self-care practices may be challenging due to the deteriorating physical and cognitive ability, socioeconomic factors and usual habits and beliefs (Shin, et al., 2016). Inability of the elderly to manage self into these practices is known to be associated with prospects of most admission in to hospitals (Sacco-

Peterson & Borell, 2004; Chang & Fang, 2004). Physical inactivity is seen as a significant public health challenge world over, and increasing physical activity levels through self-initiated physical activities also referred to many researchers as self-care practices has been known to impact on many chronic illnesses linked to advancing age of the population in a number of countries universally (WHO, 2018).

Among elderly population, the extent of self-care needs to be evaluated as a significant factor to decrease possibility of ill-health and the severity of ill health. It is being widely argued by many researchers that the resultant cost due to avoidable cost of care by applying certain programs known to be effective in the improvement of self-care (Riegel, et al., 2009).

1.2. Problem Statement

The world has noticed a general increase in life expectancy, a rise in morbidity and an increase in the burden on health systems. Health research in low income countries has been recognized to profoundly less focused on the aged, and therefore unable to measure with the ever growing population of the elderly yet the health requirements of the elderly and policy implication of the aged are poorly understood (WHO, 2011). Concerns following improving life expectancy and related health life course demand a critical evaluation. More especially in the view of making viable plans towards social-protection for the elderly groups to meet future demands (WHO, 2014).

With the eroded traditional family support systems and no formal institutions it is not known what self-care interventions if any exist in the community and if so what factors influence their presence or absence among the elderly population. Improved Self-care practices have been highlighted as

the only means contributing to a better health of the older adults. The existence of these have been shown to contribute positively to a better health as perceived by the older people however not much has been researched on self-help interventions.

In high income countries, several studies have looked at the concept of self-rated health and self-care and extensively especially among the elderly population with a considerable number of determinants thought to be associated identified. Much less is known of these factors in low income countries as most research focuses particularly in Africa focuses on younger populations (Chatterji, Byles, Cutler, Seeman & Verdes, 2015).

Like many developing countries, presently in Ghana documentation on the health as well as self-care practices of elderly persons particularly factors promoting these care practices is not prioritized generally.

Ghanaian elderly population (60 years and above) continues to increase following the global pattern and is gradually expected to double from 6.7% of the national population to more than 12% by the year 2050 (GSS, 2010). These changes are attributed to a decline in mortality and fertility rates as well as changes in life expectancy which are known to have relatively improved partly due to advancement in medical technology as well as and improved living conditions generally.

Few studies related to elderly health exist with respect to Self-reported health care (SRH) and factors influencing health in Ghana. One of such health related factors is ability of the elderly to take care of them self as well as their health states.

In general, causes of poor health status are multifaceted ranging from poor lifestyle decisions to poor social and economic conditions, all these having as consequence, a negative impact on elderly health status .

An exploration of self-care health care characteristics in the elderly and the factors related to these variables are not fully implicit due to the limited research in the area. This makes it difficult for the country to make important policy decisions in regard to the elderly population health status; trends referring to health status of elderly people as well as its social policy implications that promote self-care practices on their health and welfare.

Given the implications suggested to above, attempts to fill this information gap are imperative. Accordingly, this study will explore the following: what is the status of health and self-care practices among the older people in Medina, what determinants influence the self-care performs of older people, and are there variations in health and self-care performs between older people of different socio economic and demographic situations?

1.3. Research Questions

1. How do the elderly perceive their health status in Madina sub-district, La Nkwantanang-Madina Municipality?
2. What are the sociodemographic factors related to the perceived health status of the older adults in Madina sub-district, La Nkwantanang-Madina Municipality?
3. What are the lifestyle factors related with the health and self-care of elderly people residing in the community in Madina sub-district, La Nkwantanang-Madina Municipality?
4. What is the association between sociodemographic, life style factors, health description of the elderly with Self-reported Health status?

1.4. Objectives

1.4.1. General Objective:

To examine the health status and recognize its determinant on health and self-care among older Adults in Madina sub district, La-Nkwantanang Municipality

1.4.2. Specific Objectives

- 1) To explore socio-demographic factors associated with Self-reported Health status among elderly population in Madina sub-district, La Nkwantanang Municipality.
- 2) To assess the Self-reported health status (SRH) of the older adults in Madina sub-district, La Nkwantanang Municipality.
- 3) To assess the Life style related factors associated with self-reported Health status of the older adults in Madina sub-district, La Nkwantanang Municipality.
- 4) To determine the association between socio-demographic, lifestyle and health state description factors, and self-reported health (SRH).

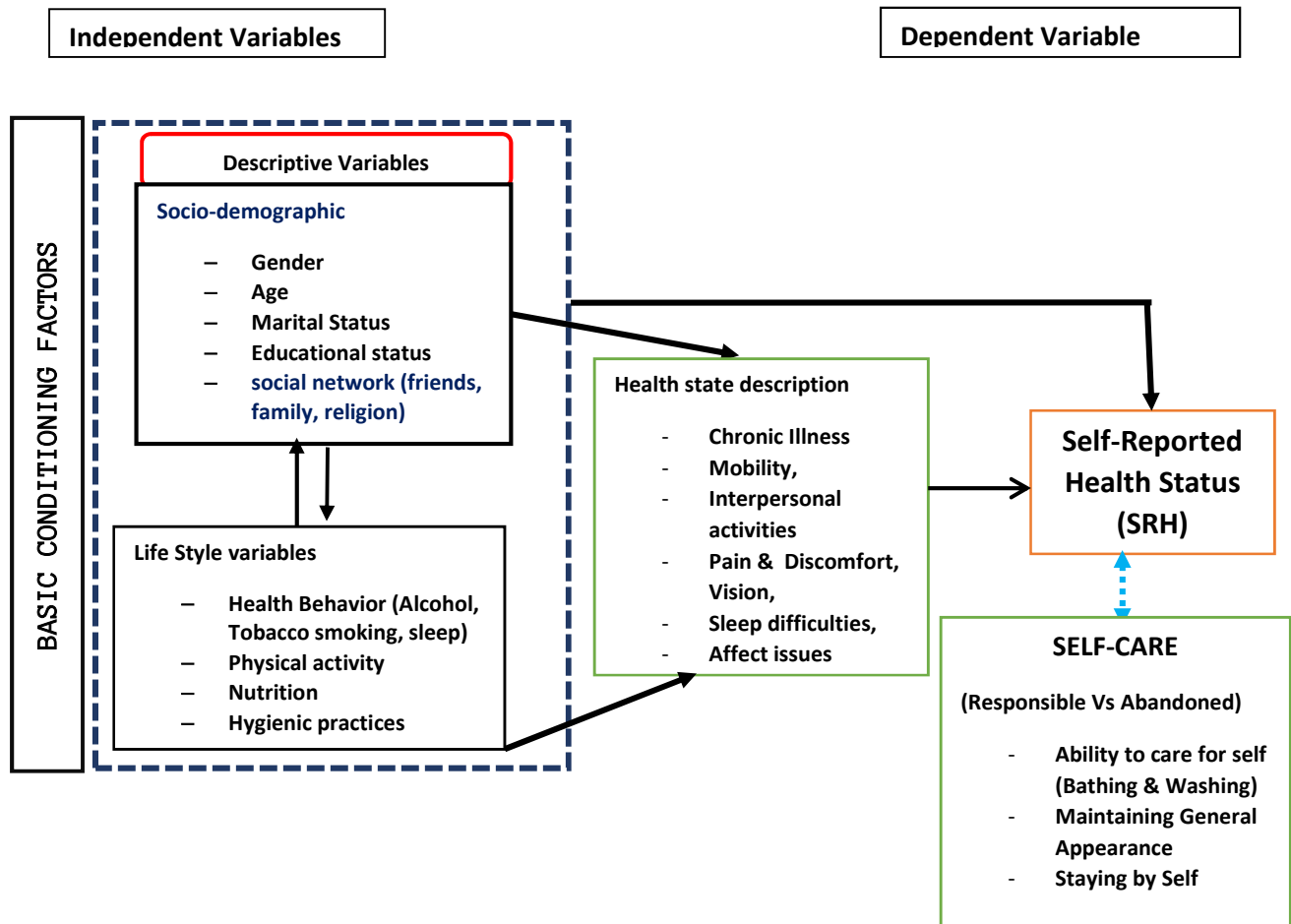
1.5. Significance of the study

Scientific investigations on ageing is urgently required to provide vital information for policy design and program execution. This research contributes to growing knowledge base about the self-care behaviours of elderly people in home based setting. The collection of holistic, descriptive data about health and self-care practices will be the primary objective. Non-communicable diseases (NCDs) especially chronic debilitating diseases have been reported to be increasing in the community and even with high levels among older people, concerns come due to the increased demand for health services from these non-communicable diseases which result following old age; The government therefore needs to restructure its health care as well as social amenities towards

the needs of the older population. Policy implications targeting the health, self-care and other needs of the elderly population are instantly needed to guarantee effective ageing and practical standing of the aged. Such a study offers a significant platform for the creation of pragmatic information on elderly and health shift for policy design mainly for established policy.

This study therefore enables the researcher to examine the association between life style, socio-demographic factors and self-care on perceived health status among elderly persons living in the community, describe the health status of older people and factors influencing the health statuses as is perceived by the elderly on aspects of their health, their self-care and factors related. The researcher then examines these factors associated critically among older people. In particular, whether self-care interventions through various activities of living influences the elderly self-reported health status. This research hopefully will contribute towards the missing link in the understanding of health status of the elderly in sub-Saharan Africa and the developing world at large. The results are hence significant in enabling a better understanding of the health of elderly population in Ghana and beyond. The findings of this study was interpreted in the context of relevant theories about perceived health status, self-care and in the aspect of health promotion in relation to previous research related to the perceived health status and self-care practices of the elderly in sub-Saharan Africa in general and in particular for Ghana. Importance of the study result for the Ghanaian health care system and for future research were explored.

CONCEPTUAL FRAME WORK



(Source: Authors own modification as an Adaptation of 3 models/concept: cognitive theory, health promotion model according to panders and self-care deficit nursing theory)

Figure 1.1: Conceptual framework (Health and Self-care related factors).

Narrative Explanation.

The study conceptual framework is composed a theory containing three original models or concepts: Penders health promotion model (Pender, Murdaugh, & Parson, 2002), the self-care deficit nursing concept suggested by Dorothea Orem (2001) and Bandura's (1997) social cognitive theory.

Health behavior refers to actions people accomplish to maintain or improve their health (Sarafino, 2008). Such an integration of different study variables (health-promoting, self-care behaviors and self-care) has been shown in some previous studies (Callaghan, 2006). According to the Health Promotion Model people interrelate by use of interpersonal relationships, which include health care professionals, to model healthy behavior and seek support or positive feedback (Pender, et al., 2002). This Model seeks to explain how older person as an individual can be motivated to engage in healthy behaviors and achieve overall better health (Pender et al., 2002). The model is composed of many elements, including both cognitive-perceptual factors and modifying factors. In general, “self-care” is characterized by a number of multidimensional behaviors. Self-care behaviors include dietary practices, exercise, toilet habit management, management of any NCDs. Self-care is a learned, deliberate use of self-care agency, though this practice can become habitual over time. The transitional capability of self-care is related to reasoning, judgment of one’s ability for self-care and decision making (Orem, 2001).

For the older adults, the process they go through in achieving self-care is a learning process that varies from individual to another and may develop over time. As stipulated by the theories, health-seeking behaviour can into “basic conditioning factors,” these are largely predisposing, empowering, and possibly need factors an individual's perception related to the health status is considered here as a need factor. Predisposing factors also seen as descriptive factors basically are socio-demographic factors such as age, sex, marital status, their occupation, levels of education. Finally, the self-care practices which include predictors such as socio-demographics, lifestyle, health status, health state description (vision, mobility difficulties among others). Health Status is known to also be a predictor of all the above independently.

CHAPTER TWO

2.0. LITERATURE REVIEW

2.1. Introduction

In this chapter an examination of the literature related to ageing, elders' self-reported health status, self-care practices and related factors are reviewed; this includes the definition and description of key concepts, relating these to relevant health promotion and theories guiding an understanding of the subject are revisited as a health resource. The literature review is organized according a description of key concepts, theoretical framework and also according to the study objectives.

2.2. Ageing

Ageing has been defined differently by various theorists and researchers. Michael Rose's definition of aging is related to decline or loss (a “de-tuning”) of adaptation with increasing age, due to time-progressive decline of Hamilton's forces of natural selection (Rose, 1991)

While from the evolutionary perspective, ageing is seen as an age-dependent or age-advanced deterioration in inherent physiological functionality, hence a declining age-specific mortality rate and age-specific reproductive rate (Medawar, 1955; Rose, 1991; Promislow and Bronikowski, 2006; Bronikowski and Flatt, 2010; Fabian & Flatt, 2011). Looking at Aging as de-tuning of adaptation is absolutely in line with the standard definition of aging. Aging is insufficiently defined if regarded as persistent age-progressive decline of physiological function leading to a steady age-progressive decline in survival and reproduction (Flatt, 2012). Since demography follows the age-dependent decline in various functions, the characteristic of the aging process is therefore not persistent as regarded in the definition but levels off (Flatt, 2012).

The number of elderly population is rising rapidly globally as the proportion of the people worldwide in the advanced ages continues to increase steadily (Transgenerational Organization, 2009). This number of world inhabitants is projected to increase in the next two decades and beyond (UNDESA, 2009). Universally, an estimate of 600 million people at least 60 years and beyond as well as the proportion of elderly is projected to twice increase from previous 7.6% to the expected 16.2% in 2050 (Transgenerational Organization, 2009). It is also estimated that by the year 2050, about 2 billion people world over will be aged at least 60 years and older, and approximately 400 million will be at least 80 years (WHO, 2014; SAGE; Biritwum et al., 2013).

The advancement in the aged people is significantly reported faster in developing Countries like Ghana (SAGE; Biritwum et al., 2013). About 80% of the elderly are expected to come these developing countries also referred to as developing countries (UNDESA, 2011; WHO, 2017). This increasing number of the elderly has been attributed to the constantly improving life expectancy, hence most people can expect to live at least 60 years and beyond than ever before (UNDESA, 2007; WHO, 2017). Other factors leading to the changes in historical demographic changes include the relatively declining lifetime fertility. The increased life expectancy is attributed to several factors that includes advancement in health care, an improved life style including a better nutrition and improved technology (UNDESA, 2007; Fuchs, 2012).

The demographic transition is known to go through three main stages. The first stage often usually follows increased survival with fewer death at childhood, the age distribution changes with changes in the proportion of children; the second, which is considered as a result of decreased fertility rate, a declining proportion of children is characteristic of this stage followed by an increase in the proportions of adults. The third phase is usually reached following a long period of

fertility as well as the declining death rate (Lee, 2003); the proportions of the young population and adult population especially of working age drops considerably, characterized by increasing proportion of the older adults (UNDESA, 2007; WHO, 2017). The multiplicity of these factors and many others have together led to a gradual reduction ill-health and death resulting thereafter as well as a reduced fertility, distribution in the ages has been seen to be ever-changing progressively from younger to older ages. These has implication as well including ageing being considered as a new focus in the 21st century. In developing countries, this results especially from a decrease in the death rate of the young ages, predominantly during childhood and peri-natal period, and from communicable diseases (WHO, 2014). In developed with the increase in life expectancy linked to the reduced death rates among the elderly population (Biritwum et al., 2013; WHO, 2014).

Emerging health and social trends of ageing

The increasing population of the aged is a future challenge to public social welfare, as well for the older adults themselves and other networks including caregivers (UNDESA, 2009). Unlike high income countries with more challenge of non-communicable diseases (NCDs), low and middle income countries face a relatively high effect of communicable and non- communicable diseases combined. Non communicable are particularly a major issue to older people as many are faced with chronic ill-health. Including heart disease, hypertension, cancer and diabetes (WHO, 2008). In addition, older adults often experience related health problems quite often, could be two or more chronic illnesses in one person. The problem of disability among elderly have also been reported, indicating multiple health challenges among the older adults and these often go on throughout their

lives (WHO, 2008). Meeting the growing needs of the older persons through provision of all the adequate required sustenance in their old age, access to special ageing friendly occupational opportunities if some would like to keep working towards their upkeep, and obtained their health care needs will be challenging (WHO, 2011).

The major challenges of advancing in age are experience in the 3rd stage of demographic transition. During this phase, the rapid advancement of the ageing population may be challenging as far as civic policy is concerned, as major plans have to be made to cope with an increasing demand of declining labour force due to increasing effect of declining number of those who work and generate an income relative to those who do not work and an increased dependency on the capable younger generation and in a longer run an growing demand for health care as well as support for the aged. With increasing dependency ratios, the proportion of children under 15 years of age and adult beyond 65 years increases as a major effect of ageing with the less economically active. It has been reported the total dependency ratio universally has largely decreased from 74 to 55 dependents per 100 persons in active age. This differences seen mainly follows a major decrease in child dependency (WHO, 2011). This favorable trend however is known to halt gradually in the coming decade being projected to 53 dependent per 100 persons of working age in 2025. However this ratio is later thought to be reversed as the consequence of ageing becomes more serious, projected to reach 57 dependents per 100 persons by 2050 as the older population increases rapidly (WHO, 2011).

High income countries have a characteristic exhibited by those 3rd phase of the transition with older structure is considerably older as compared to low and middle countries who are mostly in

the second stage where the age structure is generally younger however still significantly growing older each time as they progress higher in the transition stages.

Most of the world's elderly persons live in low and middle income countries and as transition continues to shift higher in the demographic ladder, it's thought that, by 2050, about 1.6 billion or about 79 per cent of the elderly, will reside in developing countries (United Nations, 2005). However, a rare transition has been observed in the Pacific, East Asia, Latin American and Caribbean countries. These are projected to experience a proportion of aging that is worse in terms of its rapid nature as compared to high income countries.

Ageing and changing Social environments

Over the last decades, the previously flexible social environment within which people grew older has been noted to have rapidly undergone tremendous changing. Families are now more nuclear in nature as compared to extended families decades before hence family size is generally decreasing. The extended family is defined to include a group consisting of close families of either sex usual ancestry in nature. May also include any "social arrangement in which an individual has extensive mutual duties, obligations and responsibilities that extend to relationships beyond nuclear family". In a traditional society especially of African setting the description of families implied extended families rather than nuclear family. The nuclear family system is increasing on the rise in the urban areas and with increasing urbanization it is becoming predominantly the main system replacing the well-known rural based nuclear families (Nukunya, 2003 pp. 49-52).

With the diminishing responsibility of extended households, and insights that they bring in towards the care across generations and caring for older persons are rapidly fluctuating. Changing living

arrangements are being seen. It is estimated that about 1 out of 7, or 90 million older people, live alone worldwide and this increases every other day over the past decade and the trend is projected to continue (WHO, 2014).

It's also expected that significant social consequences, result following all these especially for older people. Most older adults as a result resort to solitary living styles resulting into an increased social isolation, the role played by extended families diminished in some cases and are no more in certain cultures makes caregiving by family members more difficult; hence an expressed need for additional support services otherwise in lack of these the older persons have no option but provide their own services amidst reduced physical strength. The number of elderly people abandoned to stay alone is still considered, at less than 10 per cent, but projected to increase (though not all) developing countries. Even in a long term with the growing number of the aged individuals continue to live in their own homes amidst functional declines including physiological decline, which is a preference in most cases (Dale, Sævareid, Kirkevold; Burholt & Naylor, 2005 and, Soderhamn, 2008). Ill-health is known to increase in advanced age at least 3 folds. This is related to the known decrease in physiological function and even worse with presence of a chronic ill-health common in the aged. Such illnesses are known to weaken the elderly both physically and mentally also related to a decreasing self-care. Yet, elderly persons often admire living in their family homes (Dale, et al., 2008).

In this regards, studies have noted that the elderly not only face physical illness but also problems related to their life living (Zeng, 2014; Xiang, 2012; Tomstad, SoÈderhamn, 2013). In this 21st century, Public Health aims at achieving health improvement across the population with

advancement in age. These aim at health promotion, disease prevention, self-care improving strategies, all contributing in a way to a general improving to the quality of life and overall a better life expectancy. Much as all aims to achieve a healthy aging, this is not always the case as with advancement in age a number of factors lead those aging into a serious situation in terms of unhealthy wellbeing characterized with a significant proportion of those among the elderly who are either alone or have diseases. All those have aroused widespread concern in society (Millar, Cauch-Dudek and Shah, 2010; Robinson, Newton, Jones and Dawson, 2014; Gao, SoÈderhamn, Zhang, Cui, Liu. 2015)

The Concept of Health and Self-care

Health and Self-care are looked at in different angles and defined differently dependent largely on the perspectives of the study. Various definitions and understandings are revealed on health status of self-care. No single agreement has been comprehended. Self-care concept was first looked at as a situation where lay person tends to act on his or her own behalf in the promotion of health, disease detection, prevention and treatment (Levin, 1979; Høy, Wagner, & Hall (2007). Dean, et al. (1986) defined self-care as an individual's behavioural response to illness symptoms and basic coping strategies and actions to maintain health. Haug, et al., 1989 defined the concept of self-care as a decision-making process and also looked at as social phenomenon (Hickey, Dean & Holstein, 1986; Dean, et al., 1986; DeFriesse & Woomert, 1983). Finally as a nursing care approach and as a practice of activities that individuals initiate and perform on their own behalf in maintaining life, health and well-being (Orem, 1980; 2001). Though self-care has been extensively studied, its concept in health promotion and especially applied to elderly is remains poorly understood (Høy, Wagner, & Hall, 2007).

Taking the definition of Orem 2001 to reflect a health promotional perspective of self-care, Self-care is defined as a set of activities practice individually and initiated on own will geared towards the maintenance of good health and well-being. Self-care refers to the ability of self-care activities or self-administration or self-management (Orem, 2001). The goal of health system is to ensure that older adults are able to maintain and promote their own health even with or without presence of a chronic disease, a disability or cognitive impairment and any major limitation in their functional status. Their self-intervention reduces their own health problems and enhancement of their well-being (Gadow, 1983; Kirkevold, 2002; Ruffing-Rahal, 1991). Understanding the health promotion perspective of the older people is considered vital. Self-care has been associated with the management of treatment and disease (Cartwright, 1990; Lawson et al., 2004) focusing on the transfer of responsibility for certain levels of care from health care provider as a professional to the patient.

Self-care from socialist perspective focuses on social support, interpersonal, and perceptions (Hickey & Dean, 1986; Edwardson & Dean 1999); in Psychology it's linked to internal factors of health (Hampson, Glasgow & Toobert; 1990; Penning, 2000) and additionally some studies in psychology reflect self-care as an integrated with concepts such as self-concept, health belief and cognitive behaviour. Self-care concept in nursing was introduced in late 1950s by Henderson (Henderson, 1991). The nursing self-care concepts use medical approach instead of health promotional approach (Meleis, 2005). Mainly focuses on application of the Orem's self-care deficit theory among others (Lorensenet al., 1993, Gastet al., 1989; Denyes, Orem & GerdBekel, 2001). In public health generally, self-care has been looked at from socioeconomic perspective, behavioral and lifestyle and social support (Dean, Holst & Wagner, 1983; Lee, et al., 2002).

Factors Influencing Health and Self-care in Advancing Ageing

Self-care is known to be influenced by several factors that include demographic factors such as sex, marital status, age, level of development, life experiences, socio-cultural background, and health status. Self-care is not constant but can change dependent on a number of factors development stages and health conditions (Orem, 2001).

Majority of older adults consider themselves as active and in good health even in the presence of disability and chronic ill-health. These are always motivated to learn more about ageing and possibly health problems. Self-care is known to help guide older persons become motivated to uphold their own health through self-management techniques having understood their own health conditions. These skills can help them even in their own stays at home (Ruffing-Rahal, 1991; Backman & Molander, 1991; Lorensen et al., 1993; Wagner, 1994).

Self-care is vital for the older persons as it enables healthy behavior in individuals through positive self-care and additionally provides specific capability for those chronically ill through self-management (Sousa et al., 2010). Since this is a health promotional act, self-care practice in advanced ageing is known to help the older persons live their potential to the fullest possible, improve the quality of their lives and importantly helps the government to save national resources to solve more of the older persons and in a longer run result into “healthy aging”, and provision of improved services by the government (Guo, Gao, Guo & Liu, 2014).

Ageing situation in Ghana

The most recent Ghanaian census reports an increasing number of the older adults to 1.6 million from 213,477 only in 1960 (GSS, 1961; 2012). This figure represents up to about seven-fold increase. It has been further reported that 6.7% of the total Ghanaian population was aged 60 and beyond by 2010 with women composing a higher proportion than men of those living 70 years of age and over (GSS, 2010; UNFPA, 2012). The Ghana demographic Health Survey (GDHS) also reports a considerable reduction in the fertility represented by the number of births per Ghanaian woman from 6.4 children in 1988, 4.0 children in 2008 presenting a significant drop of up to two births per woman in twenty-six years though a slight increase was noted in the 2014 GDHS resulting into 4.2 children per woman (GSS, 2009; GSS, 2015).

Like is in other LMICs, the rapid growth of the ageing population in Ghana seems to be creating unfavorable environment for the economic development of the country in general. This is predominantly due to the increased dependency on the few who provide services as the older adults retire from their usual employments yet a large number of the young population (15 and below) still exist. The situation is even made worse due to the extra needs of the older population in terms of social welfare and public health needs (GSS, 2015; WHO, 2014).

Socio-economic determinant of self-care

Unlike is for high income countries, majority of the older adults in LMICs are known to be largely rurally resident. In Ghana about 59% of elderly population live in villages; generally with a higher proportion of men found to be married at 83.6%, compared to women at 30.1% as married.

However, about half are women who are widowed. These results are consistent with the life expectancy in female than is for males (GDHS, 2014; WHO, 2014).

A two-generation household is commonly found in Ghana like in most low middle income countries, these consist of either parents and their children, or grandparents and grandchildren. In Ghana these were reported to account for about 44% of the households surveyed in the SAGE study (Biritwum et al., 2013). Another scenario is where the older people are found alone with the children, often termed as a “skipped generation household”. These are more commonly rurally placed (Biritwum et al., 2013).

Housing

A proportion of elderly persons in developing countries are reported not to have decent houses (Ahadzie & Doh, 2009). Majority of the people live in separate non-self-contained houses (773%) and 44.4% in compound house settings, while the houses in Ghana have been known to be overcrowded. According to SAGE study all urban houses had concrete floors, and 20% of rural houses made with earth floors. The use of food based fuel put older people in a greater risk of respiratory diseases (Biritwum et al., 2013).

Physical health

In Ghana, communicable diseases are among the top causes of illnesses and death. Others include:

- maternal, perinatal and nutritional conditions. These diseases are reported to cause over half of all mortality across all ages. Non Communicable diseases (NCD) are responsible for all the 39% of all deaths from NCDs, majority of these of NCDs are cardiovascular disease, malignancy and

respiratory diseases (WHO, 2011). Ageing is associated with a higher chance of developing the condition.

Description of Self-care in Older People

Self-care of older adults is the practice of taking care of their health by managing any existing ill-health and responsible for any physical activities (Backman & Hentinen, 1999; Backman & Hentinen, 2001). Literature has expressed severally the importance of self-care particularly in health promotion. Self-care is critical health resource in older people and influential factor that enables the older persons to manage daily life individually while at their own homes (Machado, Vieira & Almeida, 2016; Høy, Wagner & Hall, 2007). Life satisfaction in older persons is found to be affected by reduced self-care ability. Likewise, low self-care ability is found to reduce life satisfaction in older people (5), and thus, it is of great importance to gain an insight into and understanding of influencing factors.

Self-care ability was reported to be related to advancement in age and lower perceived health (Soderhamn & Lindencrona, 2000; Machado, Vieira & Almeida, 2016). However in Thailand Klainin and Ouannapiruk reported refuted these claims, their finding showed health status and overall health beliefs were instead factors with strong relationships to self-care.

Demographic variables including age, sex and education are reported to be weakly associated with self-care behaviour. The level or intensity of the activity relates in a way with self-care ability for example older persons who are active are known to have more self-care activities than those who are not active in their households (Soderhamn & Lindencrona, 2000; Harrison, et al., 2010).

The self-care prerequisites include personality, the health experience, attitude towards life and the aging process, the older person's expectations about their future (Machado, Vieira & Almeida, 2016). Four types of self-care profiles have generally been noted: responsible self-care, formally guided self-care, independent self-care and abandoned self-care.

With responsible self-care, the older adult are entirely accountable for his own physical activities or health care, they have confidence in their abilities and often remain active in all possible ways. Older person living responsibly has confidence in his health and about the future. They often seek support only when they need one otherwise they rely on their own abilities.

The other type is where formal guided self-care style is followed in which case self-care interventions rely on professional plan of others such as an institution and they often follow their guidance without further questioning. The older adult has to accept that they need help in order to carry their own activities although in this time of care they still wish to remain in the community rather than being institutionalized. However they do understand that gradually being in a nursing home will not be avoided. Then there is the independent self-care style where one opts to stay at home forever, do not accept aging, stops thinking about himself and doesn't want to accept the future. They don't opt for stay at the nursing home (Machado, Vieira & Almeida, 2016).

Finally there is abandoned self-care style for the older adults who have sensory organs functional losses for example impairment in vision, hearing, mobility, or memory changes, often leading to different levels of disability. Older people in this style of self-care feel like giving up, they often stop caring about themselves allowing others to care for them hence become largely dependent. They are usually unpleasant and unhappy and become angry for simple issues. Often characterized

by unfriendly thoughts and about ageing and fear what the future is in for themselves. These usually accept any opportunities for institutionalization whenever any comes by (Železnik, 2007).

A study found elderly women in a healthier lifestyle than men, and in general, the participants in that study perceived themselves as having a health-promoting lifestyle (Byam-Williams & Salyer, 2010). Older persons are also reported to have expressed satisfaction with their existing support and social networks including with the way they live. Another study concluded that social network was important for older people to manage their home (Dale, et al., 2008). Positive self-care abilities are positively related to good perception of health and mental health in older people. Among mental ill-health, depressive moods and feelings of loneliness are particularly found to be negatively related to self-care behaviors. Ability of the older people to cope is here referred to as a sense of coherence that reflects the extent of adaptability, meaning and significance. Sense of coherence is found associated with perceived good health status in the older adults. To the elderly it expresses the meaning and purpose in life, and the competency to deal with health-threatening situations through specific self-care responses.

Nutrition is a crucial requirement in relation to self-care and health maintenance of the elderly people, because the ageing occurrence includes functional changes, either physiologic or psychological, that could affect nutritional status. The elderly people may undervalue their abilities, which may result in unhealthy and risky health habits such as poor or mal nutrition. Self-care that includes diet in the health-related concept, is defined and interpreted in literature.

The concept of self-care lacks in general consensus in terms of the definition and understanding of self-care attribute (Høy et al., 2007). However, to make a general understanding of self-care

different instruments have been utilized for evaluating the self-care ability and theories have been able to support its description and measurement. The Self-care Ability Scale for the Elderly (SASE) is the most popular of all instruments developed towards the assessment of the older adults.

The concept of self-care ability refers to where the individual older person cares for his or her environment (Soderhamn et al. 20; Høy, Wagner & Hall, 2007). However, few studies are found that describe self-care ability and health-related issues among older home dwelling people. Older adults use the traditional style, nearly all live at their family home with institutional arrangements rarely seen as seen in the developed countries. Moreover, knowledge about the situation of older people living in cultural diverse areas such as Ghana is limited, and results from previous studies concerning this topic are not consistent. However the consequences of social isolation and physical separation may result with far reaching rurally placed environments. This may reduce accessibility to public and social amenities including medical care.

In the determinants of health, Socio-economic status was rated as the most important factor in predicting whether a person will experience good or poor health (PHAC). This relationship was discussed by non-nutrition students, who identified cost as a barrier to purchasing healthy food (House et al., 2006).

Conclusion

Health and self-care have been looked at greater length in previous studies in different disciplinary approaches; however the focus for most of the studies has been related to specific chronic illness such as diabetes, self-care in the presence of hypertension and primary health care. The scope has

generally been on the loss of self-care abilities personal behavioral responses to diseases and management. Little has been looked at focusing on old age as a holistic approach to self-care

The literature points to gaps towards studies focusing on health and self-care practice and health-status among elderly persons in developing countries especially few of these studies are in Africa. Information gap particularly exists on the culturally sensitive factors related to African settings as concerns health and self-care in low middle income countries with particular reference to Ghana. The author hopes to focus this study taking public health perspective of self-care generally looking at the socioeconomic perspective, behavioral and lifestyle and social support.

CHAPTER THREE

3.0. METHODOLOGY

3.1. Introduction

This chapter presents the methodological issues that were considered appropriate for the study. The section summarizes the research design, study area, population, study variables, sampling techniques, sample size, pre-testing, validity, reliability, data collection techniques, ethical considerations and data analysis procedures.

3.2. Study Design

The study employed a descriptive cross sectional and correlational design. This study followed a quantitative approach. As a cross sectional study the exposure variables and outcome variables were documented by the researcher at the same point in time without manipulation (observational in nature).

3.3. Study area

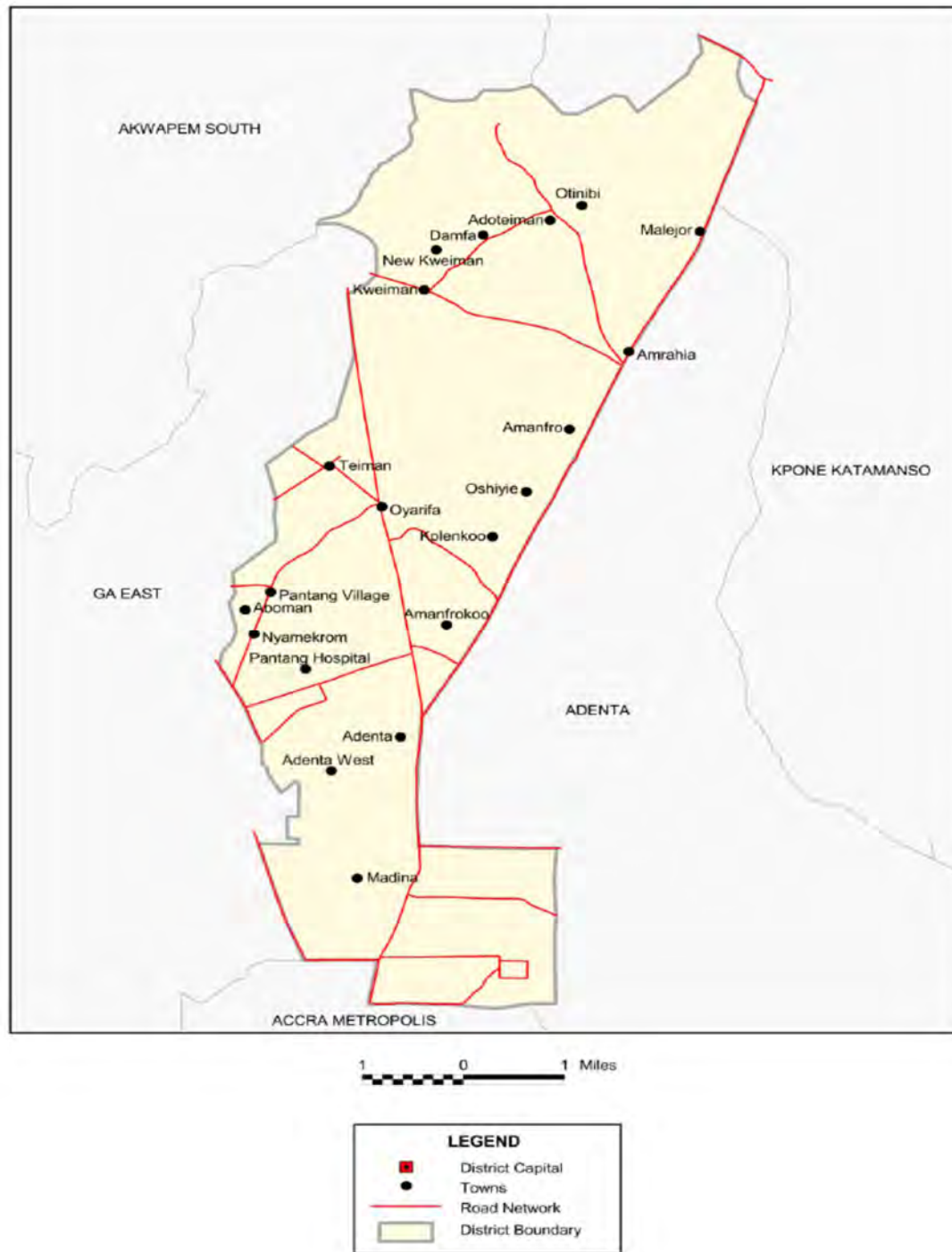
The study area was Madina one of the administrative sub-district of La-Nkwantanang Municipal Assembly, a district of Greater Accra region, south eastern Ghana. The Municipality has three (3) administrative sub-districts namely; Madina, Danfa and Pantang. The La-Nkwantanang as a district is one of the 16 Metropolitan, Municipal and District Assemblies in Greater Accra region created in 2012 as an Assembly being carved out of the Ga East Municipality in the process of implementing government decentralization policy. The Municipality is located in the northern part of the Greater Accra Region covering up to 70.887 square kilometers of surface area. It lies nearly seventeen Kilometres to the northeast of Accra, about four kilometers beyond the University of Ghana, legon campus. It is bordered on the West by the Ga East Municipal, to the East by the Adentan Municipality, to the South by Accra Metropolitan Area and the North by the Akwapim

South District. La Nkwantanang Municipality is generally urban (84 percent). Madina as an administrative sub-district is considered as the twelfth most populous settlement in Ghana with a projected population for 2017 of about 137,162 people from 111,926 reflected in the 2010 Population and Housing Census, representing 2.8 percent of Greater Accra regional population. Madina has twenty three communities believed to be largely a migrant community hence comprising of mixed settlements of urban, peri-urban and rural areas with the capital being Madina.

It is like other parts of the La-Nkwantanang municipality, Madina suburb constitutes 51.5 percent of the population with a sex ratio of 94.1. The population is majorly young (38.7%) with a small elderly study population of up to 5.0% only with total age dependency ratio 47.2 in the Municipality (GSS, 2014). Madina is mainly a patrilineal society with the indigenous people of the La Nkwantanang Madina Municipality as Ga Dangmes and the main language spoken is Ga-Adangbe with the main livelihoods as agriculture, commerce, services and manufacturing. Trading is a dominant economic activities in the Municipality especially Madina market providing as the main trading centre being also an important revenue source to the people.

Distribution of the population according to religious affiliation reflect majority (79.2%) of the population as being Christians dominated by Pentecostal/Charismatic denomination, however Islamic religion also constitute a significant proportion of up to 17.5%.

The Municipality has about twenty one (21) health facilities (public and private). Public facilities constitute only 19% (4), the remaining 81% (17) being private. Public facilities include; one Psychiatric hospital, two government Polyclinics and one Health Center. The municipality in total has 144 basic schools and 13 Senior High schools.



Source: Ghana Statistical Service, GIS-2014, pg 2

Figure 3.2: Map of La-Nkwantanang-Madina municipality showing the study area

3.4. Study unit and respondents

The study unit or unit of analysis was Individual elderly person. The respondents were older Adults (60 years and above).

3.5. Study population

A study population is a group of persons that the researcher desires the research to draw conclusion about once it's completed (Katrina, 2012). The study Population in this project is Older Adults aged 60 and over currently in Medina Municipality. These populations is about 4,247 people (GSS, 2012).

3.6. Inclusion and Exclusion Criteria

3.7. Inclusion criteria

All older Adults 60 years and above living in Madina sub-district, La Nkwantanang-Madina municipality without alterations of consciousness or mental status or cognitive impairment. Generally asymptomatic but can have common symptoms like subjective memory complaints.

3.7.1. Exclusion Criteria

The exclusion criteria includes: All older adults with alterations of consciousness or mental status or cognitive impairment. This is subjective however the respondent will be excluded on confirmation of impairment or alteration by the care taker. Elderly who do not give consent for the study.

3.8. Sample size determination

The appropriate sample size was obtained from the population of about 4,247 persons and was statistically representative of the community members of the older persons. The sample size was determined using the Cochran's formula (Fisher et al., 1998).

$$n = \frac{Z^2 pq}{d^2}$$

Where:

n= Sample size **or** minimum sample size required

Z=Standard normal deviation at required confidence level is 1.96 (95% alpha risk expressed in z score).

P= Expected prevalence (0.50) for (50% for unavailable data on self-care). **Or** expected proportion of target population estimated to have the characteristic being measured. E.g. Self-care

d= desired precision of margin of error = **Degree of accuracy= 0.05 (5%)**

As for populations that are large, using Cochran (1963:75)¹ equation, the minimum sample previously calculated was used. This is as shown below:

$$n = \frac{Z^2 * p(1 - p)}{d^2}$$

¹ Cochran, W. G. 1963. Sampling Techniques, 2nd Ed., New York: John Wiley and Sons, Inc.

$$n = 1.96^2 \times 0.50 \times \frac{(0.50)}{0.05^2} = 384$$

$$n = 3.8416 \times 0.50 \times \frac{(0.50)}{0.0025}$$

Where: $d =$ at 0.05 (5%); $q = 1-p$

With 50% as proportion of the target population and 95% confidence interval, a 5% desired precision will be used. Hence the required sample size at that precision was **384**.

However, since the population of the elderly is relatively small (less than 10,000) in the madina municipality, application of the second formula suggested by fisher et al., is important:

$$nf = n / (1 + \frac{n}{N})$$

Where:

nf = the desired sample size when the population is less than 10,000

n =the desired sample size calculated using the first formula=236; N =the estimate of the population size=4,247 older adults (60 years Over).

$$nf = n / (1 + \frac{n}{N})$$

$$nf = 384 / (1 + \frac{384}{4,247})$$

Sample size nf = 352

However 10% for non-response was added to this sample size. Total number interviewed = 387 elderly persons to be interview.

3.1. Sampling technique

The study follows a household survey technique. A list of Enumeration Areas was obtained from Regional Institute of Population Studies (RIPS) based on the original Ghana statistical services Enumeration areas for Madina sub-district of La-Nkwantanang district.

The first stage of sampling involved selection of geographical clusters (Census enumeration areas) from an updated master sampling frame for Madina sub-district constructed from the population of 4, 247 people aged 60 years and above based on the latest Ghana Population and Housing Census (GSS, 2010). A total of 5 clusters (census enumeration areas) were randomly selected from the 49 EAs in Madina sub-district (master sampling frame). All the enumeration areas were numbered from 01 to 49 and an electronically generated table of random numbers was used to randomly sample out 5 Enumeration areas out of the 49. The number of households to interview in each Enumeration Areas was obtained basing self on the relative population of each enumeration Area.

3.9 Allocation of the Sample size across Enumeration Area

The allocation of the sample size across the Enumeration area as the main strata in this study was carried out using the proportional allocation method which assumes that there is equal variability within each strata and that the cost of sampling in each strata is equal. Below is a detail computation for the allocation of the sample size across the strata (h) - various communities. The formulae for the h^{th} sample size is given by

$$n(h) = n(N_h / \sum N_h)$$

Where: n_h = number of each strata,

n = sample size = **384**,

N_h = total number of each strata, were 628, 398, 458, 180 and 218 represent estimates of the population of sampled EAs (strata) these are:- Madina market EA, Madina Zongo EA, Brodease EA, Ocansey EA and finally Pre-Sec EA respectively and

$\sum N_h$ = total number of Elderly population in All 5 stratas (EAs) = 1882

Therefore,

S/N	STRATA (EA)	Estimated Elderly population	n/N_h	Popn
1	Madina Market EA	628	0.33	128
2	Madina Zongo EA	398	0.21	81
3	Brodease	458	0.24	93
4	Ocansey	180	0.10	37
5	Pre-sec EA	218	0.12	44
		1882		384

Hence: The number of houses that were to be sampled in each EA was proportionately allocated based on estimated population share for each EA. A two-stage stratified sample design was used for the study. Stratification was based on the enumeration area.

The list of the households was not available from the assembly men as we expected, we could not either trace it from the GSS so we employed the principle of ‘reference household’ to carry out the second stage selection of households. The EA information from Ghana Statistical Service had maps that could be used to trace the set of households in each EA and each also had a ‘reference household’ that could be used to guide the sampling process. The team followed that principle, reached the reference household and then started eligibility search process for the elderly persons

and selection of the household to interview from the house closest to the front door of the reference household in each Enumeration Area until all the households sampled were realized according to the established sample size. To avoid any bias no interviews were carried out in the reference households even if it qualified to be selected. In case of ineligibility the next household closest to the front door was targeted. For household with eligible persons, the older adult member was invited to participate. If consented an interview conducted while following all the procedures outlined in this document.

3.2. Variables and indicators per objective

3.2.1. Dependent Variable

The dependent variable for the study was **‘Self-reported Health Status (SRH)’**. Participants were asked the question, “In general, how would you rate your health today? With answer options of “very poor,” “poor,” “neither poor nor good,” or “good” and very good. In this study, “health status” was therefore self-reported. In yet another control question, the respondent was asked “overall in the last 30 days, how much difficulty did you have with work or household activities?” The responses were, ‘extremely difficult’ or ‘cannot do’, ‘Severe’, ‘Moderate’, and ‘Mild’ and ‘none’.

The universal self-care requisites (USCR) will form the basis of the dependent variable measure, which was measured with one question, items from the assessment tool were combined in logical groupings to create categories, and subsequently, indexes of the universal self-care requisites. To ensure that higher scores reflected higher self-care, reverse coding was be used on several questions.

3.2.2. Independent Variables

1. Socio-demographic factors associated with health and self-care among older adults

- Social cohesion (Religious participation, organizational activity participation and civic/community participation)
- Age, sex, marital status, education level, religion

2. Lifestyle related factors associated with health and self-care among older adults

- Physical activity (Moderate of at least 150 minutes per week, vigorous of about 75 minutes per week or a combination of the 2).
- Alcohol consumption (Whether consumes alcohol ever, current alcohol intake, Quantity taken).
- Smoking (Ever smoked, currently smokes and amount)
- Nutritional status (Quantity of Fruit intake in a week, Diet (whether felt had nothing to eat)
- Sleep and Energy

3. Health State description

- Health state description
- Vision, mobility, pain and discomfort, cognition
- Presence of Chronic Illnesses,

3.3. Data collection and Study instruments

The researcher adapted structured questionnaires for Health and Self-care study from previous similar studies in the area. The WHO '*Study on AGEing research*' (SAGE) was adapted for use to the local setting. A copy of the adapted questionnaire is attached in the appendix. Questionnaires was pre-tested in Okpongolo, East legon. The selection of this site for pre-testing was purposively

done as it has similar settings with the study area-Madina. These tools consisted of a combination of mature research scales developed into a researcher administered questionnaire. The Questionnaire as the main instrument has questions whose response consist of a 5 point Likert scale method, and include standard and reverse coding.

Survey Instrument Questions

1). Self-reported health was assessed by the question “In general How would you rate your health today?” 2). Social cohesion activities included participation in civic or community activities, religious organizational activities, socialization with friend, relatives etc. by “How often in the last 12 months have you attended any religious activities? Others included participation in social activities. 3). Prevalence of chronic disease was assessed by self-reported, or whether they are treatment that is said to be for treatment of chronic illness/diagnosed by the health personnel. Chronic conditions included Arthritis, Diabetes, Hypertension, Asthma, stroke and many others.

Finally, data on Health state descriptions, were obtained from the respondent by use of a 5 point Likert scale, on pain and discomfort using a set of 3 different questions, one of the questions included: Overall in the last 30 days how much of bodily discomfort did you have?.

Other Health states reviewed include cognitive difficulties, interpersonal activity difficulties, Sleep and Energy, Affect problems, Vision difficulties. We also looked at lifestyle factors which proved a risk to the patient (a) Current behaviour, previous for common risk behaviour like alcohol use, smoking of cigarette, physical exercise and nutrition particularly in this study we considered fruits, vegetables and implied shortage of food in the past month, how often they were physical active

and when not active, physical activities were classified into either vigorous or moderate considering all types of physical activity either sports, work related or walking. However members were asked how many days per week they were active and how many hours in the day were they active. This enable us to be able to calculate weekly activity per each individual.

All data received were cross checked for errors before entering data in to an SPSS 22.0 template that was developed according to the original questionnaire.

3.4. Quality control

Data collection questionnaire and study SPSS template were developed before the training. Data was collected using paper data collection forms (Questionnaire). The Data was entered directly into SPSS 22.0 electronic template by the researcher. In order to ensure complete and accurate data, the researcher visually inspected the paper based questionnaires at the close of each day upon returning of the questionnaires from the field just before data entry. For any errors, clarifications were received from the research assistants. For this a daily meeting was ensured with the research assistants upon their return from the field. Two carefully selected research assistants who are fluent in English, Ga and Twi with some little knowledge of Hausa were used. This was to ensure the right information was captured from the surveys and correctly recorded. The research assistants were additionally trained for 2 days on matters that relate to elderly research to ensure compliance with quality standards. All questionnaires were electronically pre-numbered with unique serial numbers. Data collection was therefore carried out by skillful and trained research assistants. These had a minimum qualification of Bachelor degree with vast experience in health systems research particularly household surveys.

Prior to data collection, a two day training session was carried out at School of Public Health. The training sessions included objectives of the study, data collection procedures, practice sessions with the tools, as well as highlighting ethical, safety and confidentiality considerations.

Rules for detecting data inconsistencies and discrepancies were incorporated. The research assistant ensure prompt recording of the results. Serial numbering were however checked at the point of data entry. This helped to track all the data and ensure no data losses. The research assistant also maintained a log book to document the numbers of participants interviewed on daily basis and any unanticipated problems.

In addition, accurate recording was facilitated by adherence to the data entry and operational guidelines. Data was entered as soon as it was collected and checked once questionnaires were returned to the School of Public Health each day. Such entry arrangement was able to minimize data entry errors and facilitate monitoring and quick resolution of queries and missing data.

Validity cross checks were performed after every daily entry.

Quality was additionally ensured through pre-testing of data collection tools to make sure the tools are well formulated to meet the objectives of the study.

Based on the final pre-test, revisions were made to the data collection instruments. Validity cross checks were performed. In addition, random cross-checks were made to ensure that entered data correspond to the right participant.

The supervisor and other lecturers who are experts in social and behavioural sciences especially those with experience in ageing research and health status were also consulted throughout the different stages of this study. The researcher also kept well informed on the research area by attending webinars and workshops organized by other organizations such as one on Ageing and

well-being organized by the British council facilitated by the West African physician association in conjunction with Department of Ageing studies of University of Ghana.

3.5. Ethical considerations

3.5.1. Ethical Approval: -

The study proposal was presented to a team of experts at the School of Public Health, University of Ghana and corrections as expected were made to the document, a final version of the protocol was then sent to “Ghana Health Service Ethics Review committee” (GHS-ERC) for ethical review in their recommended format. The protocol ID NO GHS-ERC-030/12/17 received a full approval in May 2018. Permission to carry out research was additionally obtained from the Regional Health Directorate-Greater Accra and in the same way from La-Nkwantanang-Madina Municipal Health Directorate. A letter of introduction from the School of Public Health and respective letters from the Health Directorates aided the community data collection tasks.

3.5.2. Privacy/confidentiality

The privacy of the participants was ensured by interviewing each participant alone in a location that was free from any interruption or from any un-fore seen distraction. Such special places varied widely from one household to another. The interviewee or the attendants were requested for conducive place at each household; preferably under a quite shade, verandah or in the houses of the respondents. A private location was not only ensured to guarantee for safety of the information sought but also help the participant open up to the interviewers toward the study. The discussions was exclusively shared between the two parties; the interviewer and interviewee. In this study the individual elderly person participated voluntarily in the study. Older adults from age of 60 years and above were invited to participate in the study, they were provided with all the required

information on the study in printed information brochures besides a verbal explanation of key issues pertaining the study. This enabled understanding of the purpose of the study and participants were provided with the option of withdrawing from the study at any time in the beginning or any point of taking the study without penalty whenever he or she desired. The decision of an individual not to participate in the study or to opt out at any point during the study was respected.

In respect of anonymity and confidentiality the researcher would also ensure that all questionnaires as the main study instrument included no personal information such as names of the respondent and any content that could potentially identify the respondent. Any supporting information from any organizations like the municipal assemblies, health facilities, and groups were all treated with maximum confidentiality and the organizational or interviewees' anonymity protected.

3.5.3. Data security and Usage

The Research Assistants were provided with enclosed folders for carrying questionnaires throughout the data collection process either before or after data analysis. All data, to this point have been kept under lock and key making it impossible to be accessed by unauthorized persons. Upon conduct of the interviews, all such information are only accessed by the investigator with no personal identifiable information. All computer files including the SPSS data have been carefully protected with a password only accessed by the researcher. Computer codes were generated as the only identifiable information of the available data. Such link of the information was only known by the investigator. Hence this makes it difficult for any of other team members to easily track any information and link it to the respondent. The Principal investigator was however be able to link the different study variables enabling her to make useful conclusions from the research. Questionnaires will be kept up to 2 years and destroyed thereafter.

3.5.4. Benefits of the study and Potential Risks

This study is purely for policy purposes. There are no direct benefits associated, immediately or even at all. However, if the policy makers find the results useful and they make policies favorable towards the elderly persons, then the elderly population will be able to benefit from this study. In summary, this study carries no risks, apart from the time the respondent spends during this discussion. For some weak elderly interviewees, some discussions may seem lengthy or some questions were unpleasant to some elderly persons due to various reasons for example some questions on their spouses brought in old memories particularly to those who lost their spouses. Any interviewee were free to opt out if he/she felt uncomfortable at any point of the response to the questionnaire. Participants were also told that there was no compensation or incentives for participants in this study. A few who felt uncomfortable were counselled and only continued with the discussion after reassurance that she/he was comfortable with continuing with the discussions.

3.6. Participant Informed Consent

Potential participants (elderly) at each household targeted were fully informed of the study by data collectors. Participation in the data collection was entirely voluntary and participants were free to refuse or leave at any time. Full informed consent was given through the information and consent form, which was available in English language (A copy is available in the Annex). The research assistants used their skills in translating the information to relevant local language in case needed. Sufficient time of up to 30 minutes was given for questions or clarifications from the time of provision of study related information to the respondent or his or her caretaker. Participant information remained confidential at all times. Information was supported by a written information sheet and verbal and written consent was obtained from all the participants. The

information sheet is detailed in the format recommended by the Ghana Health Service Ethics Review Committee (GHS-ERC). The consent section that contained a provision for introduction of the researcher, information on the research purposes and that the study is purely for academic purposes for the award of the Masters of Science in Applied Health Social Sciences from the University of Ghana, information on who to contact in case additional information was required, potential risks and benefits of such a study related to participation and it also emphasized the voluntariness towards participation without any implication whatsoever. A provision for signing or placing a thumb print was created in the consent form - a copy has been attached to this final report. However for the weak older persons and largely illiterate ones a provision was provided for his verbal consent followed by another member of the family able to sign for them provided he/she was eligible to participate.

3.7. Data processing

To ensure accuracy and completeness, information was cross-checked for validity. Data was further cleaned by running frequencies of all variables to check for incorrect coding using SPSS 22.0. After double checking with raw data for Data entry errors and possible duplications, all necessary corrections were made before analysis. The information in each electronic data entered were coded in the process.

3.8. Data analysis and presentation methods

The data analysis was quantitatively carried out, information from the SPSS 22.0 data templates were coded were used for analysis. Presentation of the results were predominantly in tables. Other out puts from correlation matrices and regressions were also converted to tables for easy presentation. In carrying out the analysis, both descriptive and inferential statistics were used.

Frequency distribution tables, mean, percentages, and cross tabulations were used to describe the findings. While bivariate analysis was conducted using Chi-square to determine associations between the dependent variable (Self-reported Health status and Self-care practice) with each independent variable. Confidence level of 95% and $p < 0.05$ was considered.

To determine the relative importance of factors that influence older adults' self-reported health and self-care practices, a regression analysis was performed on each self-care practice index. The independent variables that were included in the analysis are: sociodemographic factors (age, gender, educational level, marital status); life style (physical activity, diet (Intake of fruits in the diet). A correlation analysis was performed before the regression analysis is completed.

Logistic regression procedure

The dependent variable 'Self-reported Health status' as a Binary variable was assigned value of '1' if the respondents reported self as having in generally good health (Very good and Good health) and '0' if not (Poor health and moderate). A value like 0 indicates the respondent has a lower probability of writing self as having good health status than individuals in the reference category. For the physical exercise sufficient and insufficient physical activity minutes per week were considered (The study used the WHO recommendation of 150 minutes each week for modest and 75 minutes per week for heavy or a mixture of the two). The dependent remained in general how do you rate your health today?" so the study was interested in the factors that influenced health as is perceived by the elderly. The outcome (Good health in this case) is binary (yes or no) and the predictor variables were selected based on their risk or protective factors;

Prior to the first step, the intercept-only model is fitted and individual score statistics for the potential variables are evaluated; many of the predictors that had a relationship in the correlational statistics were selected and tested for fit by the model. Only 2 predictors were able to fit well by the model, these are sufficient physical activity S, we see that the output describes and tests the overall fit of the model. The Hosmer-Lemeshow test was carried out based on the the null hypothesis that predictions made by the model fit perfectly with observed group memberships. A chi-square statistic was computed for the model fit comparing the observed frequencies with those expected under the linear model. The results for model 2 indicate a non-significance of ($X^2(7) = 0.981, P=0.995$).

Hosmer and Lemeshow Test			
Step	Chi-square	Df	Sig.
1	3.068	2	.216
2	.981	7	.995

As it is observed from the above table, sign= 0.995 which is greater than the level of significance set at $\alpha=0.05$, hence data fits the model well. Therefore our fitted logistic regression model is good fit. The result of binary logistic regression and significance and impact of each explanatory variable on the response variable is discussed. The estimated coefficients (B) and standard errors (S.E.) of the estimates that are used in computing the Wald statistic and the odds ratio (Exp). The significance of the Wald statistic indicates the importance of the predictor variable in the model.

CHAPTER FOUR

4.0. RESULTS

4.1. Introduction

This chapter presents the findings of the study in relation to the study objective. It consists of the demographic characteristics of respondents, Self-reported Health status (SRH), self-care intervention of the older adults, the association between socio-demographic factors associated with self-reported health, identifies factors associated with health and self-care among older, lifestyle related factors associated with health and self-care Adults and finally relationship between health state descriptions (Health state of the respondent sought e.g. chronic illness presence, vision, body pain and discomfort among others) with self-reported health. To sum up the predictors as being associated with the dependent variable a logistic regression is carried out if all conditions are met.

4.2. Socio-demographic characteristics of the respondents

The findings show the age range of the participants were at least 60 years to about 96 years' old composed of individuals from both sexes. The ratio of male to female was nearly 1:1 with the female slightly more in proportion. About the marital status of the respondents, majority (45.1%) were widowed while 43.2% are currently married and leaving together.

More than half (56.3) of the respondents live in an extended family system. However sadly 1 (0.3%) respondent was reported to be staying alone in their households. All in all, for majority of elders in Madina the support of traditional family system was still found to be dominant. The mostly spoken languages by more than a half (59.3%) of the respondents were Ewe (29.6%) and Twi (27.7%). Other less spoken by the elderly were Ga, Hausa and Frafra among others. Further

details are indicated in table 1 below. Most of the elderly people who settled in Madina originated from other parts of the Ghanaian region. The results have also shown that though the respondents are now resident in Madina sub-district of La-Nkwantanang municipality, a significant proportion of them originate from other regions and neighboring towns in the country. Christianity is the most dominant religious affiliation among the respondent since about 77.3% respondents declared that they practice Christianity that included any of the religions affiliated to it such as Anglican, Catholics, and Methodist among others, while 18% of these elderly respondents were affiliated to Islam, (3.2%).

Table 4.1: Socio-demographic characteristics of the Respondents

Socio-demographic characteristics	Frequency	Percent
Sex		
Female	198	52.8
Male	177	47.2
Marital Status		
Widowed	169	45.1
Currently Married	162	43.2
Separated / Divorced	39	10.4
Never Married	4	1.1
Cohabiting	1	0.3
Type of Family		
Extended family	211	56.3
Nuclear family	163	43.5
Lives Alone	1	0.3
Respondents Most Spoken Language		
Ewe	111	29.6
Twi	104	27.7
Ga	88	23.5
Hausa	64	17.1
Others (Frafra etc)	8	2.1
Religious Affiliation of the Respondent		
Christianity	290	77.3
Islam	68	18.1
No Religion (None)	12	3.2
Traditional	4	1.1
Refused to declare	1	0.3
Educational		
Secondary school completed	108	28.8
Less than primary school	88	23.5
High school (or equivalent) completed	87	23.2
Primary school completed	74	19.7
College/pre university / university completed	17	4.5
Post Graduate degree	1	0.3
Total	375	100.0

Table 4.2: Socio-Demographic factors associated with Self-reported Health

	Health care status of the Elderly		Total	Significance & Strength of Association		
	Good	Poor		X ²	φ _c	(P value)
Highest level of education						
Less than primary school	62 (22.1)	26 (33.3)	88 (24.6)	16.701	0.221	0.006
At least Primary school completed	55 (19.6)	11 (14.1)	66 (18.4)			
At least Secondary school completed	86 (30.7)	13 (16.7)	99 (27.7)			
High school completed	65 (23.2)	19 (24.4)	84 (23.5)			
College/pre-univ/ university completed	11 (3.9)	6 (7.7)	17 (4.7)			
At least Post Graduate degree	0 (0.0)	1 (1.3)	1 (0.3)			
Don't Know	1 (0.4)	2 (2.6)	3 (0.8)			
Total	280 (100.0)	78(100.0)	358 (100.0)			
Age of the respondent						
60-71	229 (77.9)	30 (37.0)	259 (69.1)	50.195	0.366	0.000
72-83	54 (18.4)	40 (49.4)	94 (25.1)			
84-96	11 (3.7)	11 (13.6)	22 (5.9)			
Total	294 (100)	81(100)	375(100)			
Marital status						
Never Married	4 (1.4)	0 (0.0)	4 (1.1)	28.179	0.270	0.000
Currently Married	138 (46.9)	24 (29.6)	162 (43.2)			
Cohabiting	1 (0.3)	0 (0.0)	1(0.3)			
Separated/Divorced	38 (12.9)	1 (1.2)	39 (10.4)			
Widowed	113 (38.4)	56 (69.1)	169 (45.1)			
Total	294 (100.0)	81(100.0)	375(100.0)			
Sex of the respondent				OR	Confidence Interval	
Female	154 (52.4)	44 (54.3)	198 (52.8)	1.081	0.660	1.771
Male	140 (47.6)	37 (45.7)	177 (47.2)			
Total	294 (100.0)	81(100.0)	375(100.0)			

The researcher evaluated the relationship between the attainment of various education levels, marital status, sex of the respondent, age of the respondent and Self-Reported Health status (SRH)

as perceived by the elderly persons. All results are presented in table 4.2 above. The narrative description of the findings are presented below

Educational Status and Self-reported Health

The Chi-square statistics was used to test this relationship between the educational level of the elderly and their self-reported health status. The results are as presented in table 4.2. The levels of education were treated like categorical variables. Among the elderly who reported a good health status completion of secondary education (30.1%) and additionally completion of high school level (23.2%) were shown to positively relate to health status while among those who regarded their health status as poor majority did not attain any education level. Using statistical test to demonstrate the existence of an association and measure the strength of association, the Chi-square statistics shows that there is a statistically significant association between the education level and Self-reported health status of the elderly ($X^2 = 16.701$, $p < 0.001$). The Strength of association is moderate as shown by Cramers V test ($\phi_c = 0.221$).

Sex of the respondents and Self-reported Health Status

Slightly more female than men reported to have a good health status (52.4% versus 47.6% respectively). Association between the sex of the respondent and Self-reported health status was assessed for the elderly at 95% Confidence Interval. The Odds ratio (OR) was used to test for association between sex and the outcome (Self-Reported health status) and was found to be (OR=1.081 at 95% CI: 0.660-1.771), Female in the study had the same self-reported health status as were men in the elderly population (OR=1.081, CI: 0.660-1.771).

Age of the respondents and Self-reported Health status

The researcher evaluated the relationship between the Age of the respondent and Self-reported health status as perceived by the elderly persons. The results show that the age category 60-71 years had a considerable proportion among the elderly persons who reported to have a Good health status (77.9%) while majority of those reporting poor health status were in the age categories of 84-96 years of age. The Chi-square statistics shows that there is a statistically significant association between the Age of the respondent and self-reported health status as is perceived by the elderly ($X^2 = 50.195$, $p < 0.001$). The strength of the association is strong as indicated by the phi value: $\phi = 0.366$.

Marital Status and Self-Reported Health (SRH)

To measure if a relationship existed between the variable (marital status and perceived health status) Fishers chi-statistics was used. The results are as shown in table 4.2 and also further explained below. The results show that the currently married elderly persons are among those leading a Good health status (43.2%) while for those who reported their health status as poor, majority were widowed (69.1%). The Chi-square statistics shows that there is a statistically significant association between the marital status of the elderly and health status as is perceived by the elderly ($X^2 = 28.179$, $p < 0.001$). The strength of the association is moderate as indicated by the phi value: $\phi = 0.270$.

Type of Family and Self-Reported Health

Among the elderly persons who self-reported themselves as experiencing good health status, majority (59.5%) lived in a traditional extended family system. Chi-square statistics was used for

analyzing the relationship between types of family the respondent lives in (whether extended Family or not Nuclear family versus) and Self-reported Health status of the elderly. For this analysis the nuclear family group (reference) included all those elderly persons who either lived as a small family mainly consisting of the couple i.e. the respondent and the spouse (if alive or still lived together) and their children or dependents and excluding other relatives like the aunts. Etc. The Chi-square statistics indicates a statistically significant association between the type of family (being an extended family or else nuclear (Reference) with Self-reported Health status as perceived by elderly ($X^2=5.868$, $P=0.015$). Results of the Odds Ratio (OR) show that for the elderly, in an extended family has an Odds of improved the Health status 1.8 times compared to an elderly who is in a Nuclear family or lived alone.

Table 4.3: Association between traditional extended family and Self-reported Health Status

Type of Family	Self-Reported Health			Significance & Strength of Associations			
	Good	Poor	Total	OR	CI	X^2	(P-Value)
Extended	175 (59.5)	36 (44.4)	211 (56.3)	1.838	(1.119-3.020)	5.868	0.015
Nuclear or Alone	119 (40.5)	45 (55.6)	164 (43.7)				
Total	294 (100.0)	81 (100.0)	375 (100.0)				

Social Cohesion and Self-reported Health status

The Chi-square statistics was used to test the association between the social network ability of the elderly and self-reported Health status.

Table 4.4: Association between social cohesion and Self-reported Health Status

SOCIAL COHESION	Self-Reported Health			OR	X^2	95% CI	PValue
	Good (n=294)	Poor (n=81)	Total N=375)				
Civic & Community activities							

High Social Cohesion	65 (22.1)	11 (13.6)	76 (20.3)	1.806	2.858	0.903-3.611	0.091
Low Social Cohesion	229 (77.9)	70 (86.4)	299 (79.7)				
Organization and social activities							
High organization ppt	71 (24.1)	15 (18.5)	86 (22.9)	1.401	1.139	0.753-2.607	0.286
Low organizational ppt	223 (75.9)	66 (81.5)	289 (77.1)				
Socialization with families friends etc							
High Socialization	43 (14.6)	10 (12.5)	53 (14.2)	1.199	0.234	0.574-2.507	0.629
Low Socialization	251 (85.4)	70 (87.5)	321 (85.8)				
Religious Participation							
High religious participation	227 (77.2)	22 (27.2)	249 (66.4)	9.086	71.303	5.188-15.912	0.000
Low Religious participation	67 (22.8)	59 (72.8)	126 (33.6)				
Total	294(100)	81 (100)	375 (100)				

Participation of the elderly in civic and community activities, organizational and social activities, issues related to socialization with family and friends and finally participation in religious related activities were sought. Respondents were graded as highly participating or low in participation. Odds Ratio was further used to test the strength of association between the level of social cohesion and Self-reported health status. The results are shown in table 4.3:-

Elderly persons who have a high level of social cohesion have twice self-reported health status compared to those who have a low social cohesion (OR, 1.806 (at 95% CI=0.903-3.611). Participating in religious activities was found strongly related to Self-reported Health status. An elderly who participated highly in religious activity was about 9 times more likely to report having good health status as compared to one who did not. This showed a significantly positive relationship between high participation in religious activity and self-reported Health ($X^2 = 71.303$, OR 9.0, $P < 0.01$). Participated in organizational activities did not show a significant association with self-reported health status ($X^2 = 1.139$, OR 1.4, $P = 0.286$). There was also no relationship

between socialization with friends and families and Self-reported Health status ($X^2 = 0.234$, OR 1.1, $P = 0.629$).

Objective 2: Relationship between Self-care practice and Self-Reported Health (SRH)

Majority (92.3%) of the elderly were considered to practice a responsible self-care while the others practiced either an abandoned self-care practices or a moderately guided self-care. The Chi-square statistics was used to test relationship between self-care practice and perceived Health status of the elderly. Odds Ratio was further used to test the strength of association between self-care practice and health status of the elderly. The results are in table 4.5.

Table 4.5: Relationship between Self-care practice and Self-Reported Health (SRH)

Self-care Practice	Self-reported Health		Total N (%)	X^2	P value	OR	CI
	Good n (%)	Poor n (%)					
Responsible self-care	291(99.0)	55(67.9)	346(92.3)	85.962	.000	45.855	13.412-156.776
Abandoned or moderate	3(1.0)	26(32.1)	29 (7.7)				
Total	294(100.0)	81(100.0)	375 (100.0)				

Results of the Odds Ratio (OR) show that for the elderly, living a responsible self-care were 46 times more likely to live a good health status as is compared to those living an abandoned self-care life style (OR=45.812, CI:13.412-156.776).

Lifestyle related factors as predictor of Self-Reported Health (SRH)

The researcher evaluated the lifestyle of the elderly (aged 60 years and above) against self-reported Health status. Lifestyle factors included physical activity,

Physical Activity and Older Adults

The Chi-square statistics was used to test relationship between physical activity and self-reported Health status of the elderly. The physical activities carried out by the elderly persons were classified as vigorous, moderate and walking or cycling.

Table 4.6. Physical activities including sports in Association with Self-Reported Health Status

	Self-Reported Health			X ²	Sig. p-value	OR	CI
	Good N=294	Poor N=81	Total N=375				
	n (%)	n (%)	n (%)				
1. Walking & Cycling							
Sufficient walks & cycling	160(54.4)	12(14.8)	172(45.9)	40.122	.000	6.866	3.568-13212
No suf. walking & cycling	134(45.6)	69(85.2)	203(54.1)				
2. Vigorous activity							
Sufficient Vigorous sports	9 (3.1)	1 (1.2)	10(2.7)	N/A	N/A	2.526	0.315-20.238
No suf. Vigorous sports	285(96.9)	80(98.8)	365(97.3)				
3. Moderate Activity							
Moderate Sports	53(18.0)	4(4.9)	57(15.2)	8.441	.000	4.233	1.484-12076
No suf. Moderate Sports	241(82.0)	77(95.1)	318(84.8)				
4. All Physical activities							
Sufficient Physical exercise	195 (66.3)	25 (30.9)	220 (58.7)	32.934	.000	4.412	2.597
No suf. Physical exercise	99 (33.7)	56 (69.1)	155 (41.3)				
TOTAL	294 (100.0)	81 (100.0)	375 (100.0)				

Bivariate analysis was carried and chi-square statistics performed to demonstrate any relationship between the lifestyle variables (physical activity, alcohol, smoking and nutrition) and outcome (Self-reported health status). The Results are as below. Walking and cycling sessions accounted for approximately 74 % of all the physical exercise sessions reported by the elderly. The average moderate physical activity for the elderly was 197 minutes each week generally with a SD of 518 minutes of exercise per week; vigorous physical activity was performed by only, 7(1.7%) of the population at a mean value of 540 minutes each week of activity classified as vigorous. In

performing analyses, the odds of achieving “sufficient physical activity,” (150 minutes modest or 75 minutes of heavy and demanding each week overall) “sufficient walking,” and “sufficient walking was calculated. Results are as below at 95% Confidence Interval ($P < 0.05$). Elderly persons reported to have any sufficient physical activity of any kind (minimum of 150 minutes of most physical activity or 75 minutes of any heavy physical activity each week) are 4.4 times more likely to report good health status as compared to those not considered generally to have sufficient physical exercise. Chi-square statistics confirms this association to be statistically significant association at 95% CI = 1.484-12.076 (OR = 4.4, $X^2 = 32.934$, p-value < 0.001).

Person reported to have any sufficient walking and sports (minimum of 150 minutes of modest physical activity or 75 minutes of heavy sport activity) are about 6.8 times more likely to report good health status as compared to those not considered generally to those with in-sufficient walking and sport activities such as cycling. Chi-square statistics confirms this association to be statistically significant association at 95% CI at 3.568-13.212 (OR = 6.8, 95%, $X^2 = 40.122$, p-value < 0.001).

Person reported to have any sufficient moderate physical activity (at least 150 minutes of moderate activity) are about 4 times more likely to report good health status as compared to those considered with insufficient moderate physical activity. Chi-square statistics confirms this association to be statistically significant association at 95% CI = 1.484-12076 (OR = 4.2, $X^2 = 8.441$, p-value < 0.001).

Relationship between ever smoked and Self-reported health status

Pearson Chi-square statistics was used to measure the relationship between smoking (currently smoking or previous) and self-reported Health status (HRH). 4.8% of the elderly had smoked.

Table 4.7. Relationship between whether smoked and Self-reported Health status

smoke tobacco	Self-reported Health		Total	X ²	Value
	Good	Poor			
Yes	13 (4.4)	5 (6.2)	18 (4.8%)	0.426	0.344
No	281(95.6)	76 (93.8)	357 (95.2)		
Total	294 (100.0)	81 (100.0)	375 (100.0)		

The Chi square statistics showed that there is no statistically significant association between the variable ever smoked and health status of the elderly persons ($X^2=0.426$, $P=0.344$). However no statistical significance between current smokers health status of the elderly ($X^2=0.430$, $P=0.888$).

Table: Relationship between Alcohol intake and Self-reported Health (HRH)

A bivariate analysis was conducted to show relationship between alcohol intake and self-reported health status (SRH). Chi-square statistics was used to test relationship between intake of alcohol activity and self-reported Health status of the elderly.

Table 4. 8: Relationship between whether smoked and Self-reported Health status

Current Alcohol intake	Health care status		Total	X ²	value
	Yes	No			
Yes	26 (9.1)	6 (7.5)	32 (8.7)	.198 ^a	.426
No	260 (90.9)	74 (92.5)	334 (91.3)		
Total	286 (100.0%)	80 (100.0)	366 (100.0)		

Results show up to about 8.7% of the elderly were currently drinking alcohol. The Chi-square statistics shows that there was no statistically significant association between the current intake of alcohol and self-reported health status of the elderly person ($X^2=0.198$, $P=0.426$).

Table 4. 9: Spearman's rank between lifestyle related Variables and Health Status of the Elderly

		SLEEP & ENERGY DIFFICULTY	SELF CARE COMPOSITE	SMOKING	ALCOHOL INTAKE	SELF- REPORTED HEALTH STATUS	PHYSICAL ACTIVITY
SLEEP & ENERGY DIFFICULTY	Spearman's						
	Correlation	1					
	Sig. (2-tailed)						
SELF-CARE COMPOSITE	Spearman's						
	Correlation	-.359**	1				
	Sig. (2-tailed)	.000					
SMOKING	Spearman's						
	Correlation	.054	-.010	1			
	Sig. (2-tailed)	.293	.854				
ALCOHOL INTAKE	Spearman's						
	Correlation	.057	-.023	.005	1		
	Sig. (2-tailed)	.273	.660	.930			
SELF-REPORTED HEALTH STATUS	Spearman's						
	Correlation	-.357**	.654**	.016	-.072	1	
	Sig. (2-tailed)	.000	.000	.751	.163		
PHYSICAL ACTIVITY	Spearman's						
	Correlation	-.230**	.274**	-.091	.017	.318**	1
	Sig. (2-tailed)	.000	.000	.080	.737	.000	
N		375	375	375	375	375	375

A spearman's rank correlation was run in order to determine the relationship between Lifestyle related factors contributing to perceived health status and self-care among elderly. Results of Pearson's correlation self-reported health status and Self-care show a strong and significant positive correlation between self-reported health status and self-care ($r = 0.654$, $n = 375$, $p < .01$), there is also strong and a significant negative correlation between self-care and sleep and energy ($r = -0.359$, $n = 375$, $p < .01$), there is also a significant negative correlation between Self-reported health and self-care ($r = -0.357$, $n = 375$, $p < .01$). There is also a significant positive correlation between physical exercise and self-care ($r = 0.274$, $n = 375$, $p < .01$). There is also a

strong significant negative correlation between physical activity and sleep difficulty ($r = -0.230$, $n = 375$, $p < .01$). There is also a strong significant negative correlation between physical exercise and self-reported health status of the elderly ($r = 0.318$, $n = 375$, $p < .01$). Details of the correlation results are shown in table above.

Objective 4: To compare Health and self-care practices between older people according to health state description.

Relationship between Health state descriptions with Self-reported Health (SRH)

We sought to assess health state description of the elderly and the relationship between health status and the practice of self-care by the elderly persons in Madina. The Health state descriptions included the extend of vision difficulties, pain and discomfort difficulties, interpersonal difficulties, mobility difficulties experienced, cognitive difficulties and finally Affect related difficulties as assessed from the perceived reports of older people. A bivariate analysis was conducted to show relationship between Health state descriptions and perceived health status (SRH). Chi square statistics was used to conduct a relationship check between the Health state and self-reported Health status of the elderly. Results are as shown in the Table 4.10.

Table 4.10: Relationship between Health state descriptions with Self-reported Health

	Self-Reported Health			X ²	P-Value	Phi
	Poor	Good	Total			
Pain and discomfort						
None	8 (9.9%)	153(52.0)	161(42.9)	83.827	0.000	0.484
Mild	22(27.2)	93(31.6)	115(30.7)			
Moderate	45(55.6)	48(16.3)	93(24.8)			
Severe	6(7.4)	0(0.0)	6(1.6)			
Cognition Difficulties						
None	20(24.7)	245(83.3%)	265(70.7)	106.334	.000	0.558
Mild	38(46.9)	42(14.3)	80(21.3)			
Moderate	22(27.2)	7(2.4)	29(7.7)			
Severe	1(1.2)	0(0.0)	1(0.3)			
Interpersonal Difficulties						
None	33(40.7)	251(85.4)	284(75.7)	65.902	.000	0.446
Mild	28(34.6)	33(11.2)	61(16.3)			
Moderate	19(23.5)	10(3.4)	29(7.7)			
Severe	1(1.2)	0(0.0)	1(0.3)			
Sleep & Energy problems						
None	24(29.6)	204(69.4)	228(60.8)	47.967 ^a	.000	0.358
Mild	27(33.3)	58(19.7)	85(22.7)			
Moderate	30(37.0)	32(10.9)	62(16.5)			
Affect difficulties						
None	24(29.6)	180(61.2)	204(54.4)	33.026 ^a	.000	0.297
Mild	41(50.6)	99(33.7)	140(37.3)			
Moderate	16(19.8)	15(5.1)	31(8.3)			
Chronic Illness						
Yes Chronic present	68(84.0)	204(69.4)	272(72.5)	6.760	0.009	0.134
No Chronic Illness	13(16.0)	90(30.6)	103(27.5)			
Total	81(100.0)	294(100.0)	375(100.0)			

The Chi square statistics shows presence of a strong statistically significant association for having No pain difficulties and Self-reported Health ($X^2 = 83.827$, $P < 0.001$), having No cognitive difficulties and Self-reported Health ($X^2 = 106.334$, $P < 0.001$), No interpersonal difficulties and Self-reported Health ($X^2 = 67.902$, $P < 0.001$), Having No sleep and energy related difficulties and Self-reported Health ($X^2 = 47.967$, $P < 0.001$), Having No affect difficulties and self-reported Health ($X^2 = 33.026$, $P < 0.001$). Chronic Illness was prevalent among the elderly at 72.5% in all and more especially among those who also reported having poor health status ($X^2 = 6.760$, $P < 0.001$).

A spearman's rank correlation coefficient was performed to measure the association between Health state description and Self-reported Health status. This is presented in the matrix summarized in table 4.11: below.

Table 4.11: Correlations matrix- Health State descriptions and Self-reported Health

		Health status	self- care	Vison problem	Pain & Discomfort problem	Inter- personal difficulty	Mobility difficulty	Cognition problem	Affect problem
Self-reported Health status	Spearman's Correlation	1							
	Sig. (2-tailed)								
Self-care	Spearman's Correlation	-.455**	1						
	Sig. (2-tailed)	.000							
Vision Problem	Spearman's Correlation	-.302**	.241**	1					
	Sig. (2-tailed)	.000	.000						
Pain & Discomfort Difficulty	Spearman's Correlation	-.469**	.291**	.076	1				
	Sig. (2-tailed)	.000	.000	.143					
Interpersonal Difficulties	Spearman's Correlation	-.426**	.358**	.168**	.325**	1			
	Sig. (2-tailed)	.000	.000	.001	.000				
Mobility Difficulty	Spearman's Correlation	-.571**	.524**	.325**	.463**	.528**	1		
	Sig. (2-tailed)	.000	.000	.000	.000	.000			
Cognition problem	Spearman's Correlation	-.573**	.462**	.285**	.481**	.621**	.595**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		
Affect problem	Spearman's Correlation	-.297**	.245**	.096	.463**	.330**	.273**	.322**	1
	Sig. (2-tailed)	.000	.000	.064	.000	.000	.000	.000	
N		375	375	370	375	375	375	375	375

Results of Spearman's correlation show a significant positive correlation between having vision problems and self-care ($r = 0.241$, $n = 375$, $p < 0.01$); However a moderate statistically negative correlation with health status as perceived by the elderly persons ($r = -0.302$, $n = 375$, $p < 0.01$).

Results also show a strong significantly negative correlation between having Pain and discomfort difficulties and health status ($r = -0.469$, $n = 375$, $p < 0.01$); However a strong statistically positive correlation with self-care ($r = 0.291$, $n = 375$, $p < 0.01$). Hence respondents who had more pain and discomfort problems were likely to report selves as with a poor health status yet they motivated themselves to care more about themselves. Results also show a strong significantly negative correlation between having interpersonal difficulties and self-reported health status ($r = -0.426$, $n = 375$, $p < 0.01$); However a strong statistically positive correlation with self-care ($r = 0.358$, $n = 375$, $p < 0.01$). Hence respondents who had more interpersonal difficulties were likely to report selves as with a poor health status yet individually self-care about themselves more.

There is also a strong significantly negative correlation between having mobility difficulties and health status of the elderly ($r = -0.571$, $n = 375$, $p < 0.01$); However a strong statistically positive correlation with self-care ($r = 0.524$, $n = 375$, $p < 0.01$). In the same way a strong significantly negative correlation between having cognitive difficulties among the elders and health status of the elderly ($r = -0.573$, $n = 375$, $p < 0.01$); However a strong statistically positive correlation with self-care ($r = 0.462$, $n = 375$, $p < 0.01$). Hence respondents who had more cognitive related difficulties were likely to report selves as with a poor health status yet they motivated themselves to care more about themselves. Finally a strong significantly negative correlation between having Affect difficulties and health status of the elderly ($r = -0.297$, $n = 375$, $p < 0.01$); However a strong statistically positive correlation with self-care ($r = 0.245$, $n = 375$, $p < 0.01$). Hence respondents who had more affective difficulties were likely to report selves as with a poor health status yet they motivated themselves to care more about themselves.

Binary logistic regression Model summary

Results of multiple regression of self-reported health are shown in Table 4.12. The model summary shows that more than 72% ($R^2 = 0.721$ and adjusted $R^2 = 0.713$) of the variance was explained by 2 variables included in the model: having sufficient physical activity and self-care practice. The model demonstrated the factors that were related to the self-reported health of the elderly included participation in these two factors, having sufficient physical activity and self-care practice. The result of binary logistic regression and significance and impact of each explanatory variable on the response variable is presented in the table 4.12.

Table 4.12. Multiple regression of Self-reported Health (SRH)

					95% C.I. for EXP(B)		R ²	
	B	S.E.	Wald	df Sig.	Exp(B)	Lower	Upper	Nagelkerke
step 1 ^a self-care score	.979	.175	31.443	1 .000	2.661	1.890	3.746	0.630
Constant	-10.551	2.163	23.795	1 .000	.000			
step 2 ^b sufficient physical activity	.011	.004	6.988	1 .008	1.011	1.003	1.019	0.721
self-care	.974	.217	20.082	1 .000	2.649	1.730	4.057	
Constant	-12.277	2.951	17.313	1 .000	.000			

For the final Model (Step 2), 72.1% of the variability in the dependent variable (Self-reported Health status) was explained by the explanatory variables (Self-care and Sufficient physical activities). The log odds of elders who reported selves as having good health status in those practicing responsible self-care in Madina increased by 2.6 times as compared to those who abandoned their self-care practice among the elders in Madina (Coefficient (B) = 0.974, OR=2.649, $P < 0.001$, CI= [1.730, 4.057]).

CHAPTER FIVE

5.0 DISCUSSION

5.1. Introduction

This study described the characteristics of the elderly according to socio demographic factors, their lifestyle, the type of self-care practiced (whether responsible, or abandoned self-care) and finally the relationship between all these predictors and self-reported health status.

This study demonstrated the need to take the elderly population significantly as a key population as their numbers are increasing every day, understand the health related issues and to be able to understand and make programmatic interventions for their ageing population.

5.2. Socio-demographic factors associated with health and self-care.

The study found age statistically significantly associated to perceived health status of the respondent. Previous studies have reported age as positively related to predictor of self-reported health status of the respondents. Respondents in the later-old category (at least 80 of age) were more likely to report poor health compared to the elderly persons in a younger categories (60-80 years). This result is consistent with similar and more recent studies in Ghana such as Fonta, Nonvignon, Aikins, Nwosu, and Aryeetey, 2017 and relatively earlier studies (Kumar and Kumar, 2012; Movahed, Jahanbazian, Abbasi Shavazi, 2016). All these studies found advancing in age as being associated with poor health.

The changes observed with advancement as related to poor health could be as a result of a normal biological deterioration or general body functionality in terms of reduced morbidity, increased neuro muscular issues common in old age particularly those in more advanced ages of 80 years and above. Previous studies including Fonta, et al., 2017, Gachuhi and Kiemo., 2005) note these

changes in biological process as being responsible for a general decline of reported health status among the elderly persons. The studies note a decline in mobility as well as other physical function with functional limitations as the years go by and therefore worse situation for older people within the elderly population. Hence the studies note a general health status decline with the elderly persons recommending support systems to be increased.

Unlike Fonta, et al., 2017 which reported no significant statistical relationship between either the educational and perceived health status of respondents. This study demonstrates that educational level in particular completion of at least a secondary school for about 30% or completion of high school (23.2%) of the elderly person were significantly related to reports of good health status while among those who regarded their health status as poor majority did not attain any education level.

The study showed no significant relationship between the sex of the respondent and self-reports of health status hence reflecting Female in the study had the same self-reported health status as were men (OR=1.081). The results of this study is similar to Fonta, et al., 2017, which also noted no statistical relationship between sex of the respondent and perceived health status.

The married elderly persons were significantly among those reported with Good health status (43.2%) compared to the single or widowed. The widowed particularly lived a poor health status compared to the other groups (69.1%). Previous research from 1980s to date have clearly demonstrated an increase in the longevity of the married in comparison to the single or widowed. This finding is not a surprise as it has been long well known the relationship between some key

demographic variables in relation to marital status. These are health care uptake, mortality among others (Hu and Goldman, 1990). Kuate-Defo (2006) similarly notes marital status as contributing significantly to health status, with the married looked at as being better placed towards a better health status and the single leading a poor health characteristic generally. The study, Fonta, et al., 2017 in Ghana found out no statistical difference between SRH and the marital status.

Elderly from traditional extended families were about twice likely to report having good health status as compared with an elderly who lived from Nuclear family or lived alone. Being in the Nuclear or Extended family have the same odds towards the responsibility to influence the self-care status as perceived by the elderly.

Previous studies also note the traditional Ghanaian setting in being heavily extended household structure compared to other settings and also being able to receive some form of assured support from the young ones including grandchildren, the authors also note the ongoing changes in the society from extended to nuclear as being responsible for the reduced available support systems to the elderly persons (Aboderin, 2004; Mba, 2010; Fonta, Nonvignon, Aikins, Nwosu, and Aryeetey, 2017). However, the current modernization settings in Ghana and urbanization of the Ghanaian society has led to poverty and general hardship economically with more focus shifted to the nuclear family and hence characterized with a breakdown of the outdated family livelihood system to older individuals.

WHO, 2014 notes support systems from the family as being a necessity for elderly persons. This is particularly important in caregiving support from others (spouses, children, Grandchildren, and

well-wishers). It is noted that such family support systems are the main source of care to the elderly. This is only possible in an extended family system.

Related to the extended family support, another important related aspect is social network of the elderly persons. Persons who have reported with high level of social cohesion have generally been shown with good self-reported health status. High level of Participating in religious activities among the elderly has been particularly reported to have strong association with perceived Health status. An elderly in the study is about 9 times more likely to report having good health status if he participated highly in religious activities. However there was no significant relation in this study between participation in other organizational activities or socialization with friends and families and Self-reported Health status. A number of studies including Chen, Okumiya, Wada, Sakamoto, et al. (2015) have demonstrated social cohesion as being an important factor that influences health as perceived by the people. Drukker, Buka, Kaplan, McKenzie, & Van Os, 2005 further notes the significance of socialization with the neighborhood social capital and social network of the elderly represent capital that the elderly can access through joining the existing membership in different community groups.

5.1. Self-reported health and self-care intervention of the older adults

As expected, the findings of the study show a strong association between, living a responsible self-care life style and the self-reported health status. Elderly persons living a responsible self-care were about 46 times likely to report selves as with a good health status in comparison to those living an abandoned self-care life style (OR=45.812, CI: 13.412-156.776).

Significantly respondents who reported selves with vision problems were likely to report poor health status. These were generally expected as *Health* is looked at as “A state of complete

physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1948). Implying any effect of the loss of functionality generally affected the respondent and also how he/she looked at himself. This is also in line with the correlational results where:- Pain and discomfort difficulties, interpersonal difficulties were significantly correlated with self-reported health generally. Hence respondents who had more interpersonal difficulties were likely to report selves as with a poor health status yet individually self-cared about themselves more. While a statistical negative correlation was observed between respondents who had more mobility related problems or cognitive problems, affect difficulties and a poor health status yet they motivated themselves to care more about themselves.

5.2. Lifestyle as determinant of perceived health

With the continued advancement in age, there is usually an irreversible process associated with gradual decline in muscular tone and neuromuscular functions. To keep the body to its maximum functionality usually, physical exercise is necessary as it helps in the optimal body functionality of the body through exercises. The findings indicate generally an association between physical activity and a better reported health status of the Elderly persons. Those who had reported as having sufficient physical activity in general clearly (minimum of 150 minutes each week if modest activity and 75 minutes of heavy and energy demanding) were reported to more likely able to report good health status as in comparison to persons with insufficient physical activities. The findings show a significant proportion who at least carried out sufficient moderate physical activity were about 4 times more likely to report good health status as compared to those considered with insufficient moderate physical activity. Previous research by Wanderley, Silva, Marques, et al. (2011) has shown Individuals with higher physical activity levels that were

estimated by the number of counts/minute were more likely to score higher in self-reported health status generally representing with an association of (OR = 1.90). The studies Chan, Teh, Lim, Lim, Yeo, Kee, et al. (2011) and another study Molarius, Berglund & Eriksson (2007) acknowledge the practice of physical activity as being able to improve a better perceived health and also further affirmed to ensure a better wellbeing of the elderly persons. While doing this these studies among others found a substantial association of lack of activity and deprived self-reported health status particularly among the elderly persons.

Contrarily Fonta, et al., notes it's those engaged in slight to modest physical activity for 10 min each day as more likely to report poor health. However WHO recommends a minimum of 150 minutes each week of modest physical activity or 75 minutes of vigorous activity each week of heavy physical exercise or a mixture of the two generally. Hence with the physical activity of only up to 10 minutes per day, few people actually meet the WHO recommendation, hence not a surprise (Stults-Kolehmainen & Sinha, 2014; Oman & King, 2000).

5.3.Objective 4: To compare Health and self-care practices between older people according to health state description

The association between Self-reported Health and the level of self-care of the elderly persons in Madina was studied here. There was a statistically significant association between Self-reported Health status and Health descriptions like having 'No pain difficulties', 'no cognitive difficulties', 'No interpersonal difficulties', 'sleep and energy related issues' and 'having no affect difficulties'. Chronic Illness was prevalent among the elderly at 72.5% with the prevalence increasing with aging and more of those who had the health state difficulties also significantly also reported themselves as with poor health status.

Respondents who reported selves experiencing pain and discomfort problems were likely to report selves as with a poor health status yet they motivated themselves to care more about themselves. However a strong statistically positive correlation with self-care was noted Hence respondents who had more interpersonal difficulties were likely to report selves as with a poor health status yet individually self-care about themselves more. There was a relation between having cognitive difficulty and self-care, Hence respondents who had more cognitive related difficulties were likely to report selves as with a poor health status yet they motivated themselves to care more about themselves. Finally a strong significantly negative correlation between having Affect difficulties and health status of the elderly. However a strong statistically positive correlation with self-care. Hence respondents who had more affective difficulties were likely to report selves as with a poor health status yet they motivated themselves to care more.

5.4. Limitations of the study

There are a few potential limitations to this study.

As a cross sectional study, its usual limitations may apply in this study ranging from general understandability of the questions to possible social desirability of certain responses as being able to influence elders responses, especially for questions relating to other sensitive areas such as questions on their lifestyle, alcohol use and smoking behaviour. Although participants were informed that their responses would be confidential, they may respond in more socially acceptable ways or in keeping with what they perceived to be the researcher's expectations. Limiting the influence of social desirability is an ongoing challenge for quantitative researchers who employ self-report especially on this research on aspects of elderly's perceived health status and self-care interventions and possible factors related to them.

The use of structured questionnaires as a study instrument may potentially limit the elderly's ability to provide extensive replies to questions posed. A qualitative technique could allow elderly to share their experiences and opinions of their own health and in self-care. It is also likely that there may be some biases in self-report of the respondent as elders may not have been entirely honest dependent on their mental and physical state. Though to reduce the bias in the responses, the researcher took extra precaution of some screening questions related to the mental well-being of the elders. This will ensure that responses are coming from mentally stable elders.

Using this Madina study data to generalize to all Ghanaian elderly population may not be appropriate. Elderly in other communities in Ghana (rural and urban) may vary in terms of health practices and self-care interventions than the study area. Additionally, using any research tool for assessment of factors determining health and self-care interventions, may not fully apply to the Ghanaian context. Since self-care standardized tools were adapted from WHO SAGE for use in this study, it's unknown whether the research tool or questionnaire developed would produce the same results among the elderly at another location or in those in a different cultural context. This limitation was minimized by adapting tools already extensively used by WHO-SAGE among comparable elderly population including among Ghanaians and additionally being able to pilot the tools in East legon with a similar setting as Madina. This may not however solve completely some unique differences people populations. More culturally diverse populations would likely identify different self-care practices than the current participants. An unexpected limitation could be the lack of sensitivity of some items on the self-care practice tool to the certain situation. These factors will be an essential consideration in tool refinement and in future research.

CHAPTER SIX

6.0. CONCLUSIONS AND RECOMENDATIONS

6.1. CONCLUSION

This section focuses on conclusions of the study, implications of the finding for research, policy, practice and education.

Objective 1: To explore socio-demographic factors associated with self-reported Health

Conclusion

The present study found no significant relationship between sex of the respondent, the respondents educational level and Health related Health status. However, significant relationships were noted between Age and poor health status with more advanced elderly less probably able to report themselves with Good health status.

Objective 2: To assess self-related Health Status and self-care intervention

Conclusion

Basing on the result of the study, it is possible to conclude that the study population as being in a relatively good and therefore a satisfactory health state, majority with responsible self-care practice. The findings contribute immensely to the available literature on self-reported health and self-care.

Objective 3: To identify lifestyle related factors associated with health and self-care among older adults Madina sub-district, La Nkwantanang-Madina Municipality.

Conclusion

The present study contributed a lot to the current literature on self-Reported Health, particularly as concerns factors that could reduce the health risk of the elderly hence ensure better health status (self-care, physical exercise, social cohesion, socio demographic among others). These findings indicate that improvements in Health status generally with improvement in self-care, social cohesion, having good nutrition practice, physical exercise. One could actually initiate activities targeting the elderly which have components of community social cohesion activities and additionally where physical activity is practiced. Since these activities have independently been shown to relate to Self-reported health status, their integration could strongly relate to even a better Health status among the elderly persons as well as improved and more responsible self-care practices.

Objective 4: To compare health and self-care practices between older people according to health state description and socio-demographic situations.

Conclusion

The study findings were able to provide the best available prevalence estimates for chronic illness among Ghanaian elderly persons. Findings indicated that chronic conditions were common among the elderly persons, deliberate health promotional programs could target the elderly geared towards disease prevention or early intervention. It's also expected naturally there to be a reduced complication or progression and there a better survival rate from chronic illness with better self-care among the elderly themselves.

To measure the health status the current study utilized Self-reported aspect of Health, though various research have indicated a good use of such data to approximate health status, some biases may still exist-total accuracy may not be guaranteed, hence imitations of this study already

mentioned earlier, Use of extra comprehensive measure of perceived Health, and through gaining insight into the causal relationship between social cohesion and physical activity may be needed. Further prospective research rather than a cross sectional may be used as these are known to study the elderly for a longer time and for identifying and confirming causal pathways. It would be good to look further into chronic illnesses

6.2. RECOMMENDATIONS

Objective 1: To explore socio-demographic factors associated with self-reported Health

Recommendation:

The Madina Social Service department with support from the Municipal health assemblies should strengthen existing community and family support groups geared towards improving social support and to the elderly through the available networks in the community such as associations, church congregations among others.

Objective 2: To assess the self-related Health Status and self-care intervention

Recommendation:

The Regional Directorate Ghana Health Services should pioneer the building of ‘elderly friendly hospitals’ at least regionally equipped with specialists in geriatric services, psychologists and gymnastic services.

Objective 3: To identify lifestyle related factors associated with health and self-care among older adults Madina sub-district, La Nkwantanang-Madina Municipality.

Recommendation:

La-Nkwantang the Government should build free recreational centers for the elderly to improve on their physical activities such as physical exercises.

Objective 4: To compare health and self-care practices between older people according to health state description

Recommendations

The Ghana Health Service should champion community Health promotional activities for the elderly that include sensitization campaigns on healthy living in old age, self-care, and chronic illness among others. These activities could be either integrated with ongoing community programs or as special programs for the elderly

Based on the finding that some elderlies were leaving abandoned self-care practices and were unsupported. The Ghana Health services should look into the issue of recommending policy nursing homes as special institutions for the elderly. Such a home could take care of the weak and the abandoned elderly persons.

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APPENDICES

Appendix 1: Individual Questionnaire

FACTORS INFLUENCING THE HEALTH AND SELF-CARE AMONG ELDERLY IN MADINA MUNICIPALITY, GREATER ACCRA, GHANA (Source: Adapted from WHO SAGE, Wave 1)

Section A: Preliminary Questions: Screening for Inclusion				
	INTERVIEWER:	CODE	ALTERNATIVE	RESPONSE
Qn. 01	Does the respondent have obvious cognitive limitations that prevent him/her from being interviewed?	1	YES	
		2	NO	
Qn.02	How would you best describe your memory at present? Is it very good, good, moderate, bad or very bad?	1	VERY GOOD	
		2	GOOD	
		3	MODERATE	
		4	BAD	
		5	VERY BAD	
Qn.03	Compared to 12 months ago, would you say your memory is now better, the same or worse than it was then?	1	BETTER	
		2	SAME	
		3	WORSE	
Qn.04	Screening for Inclusion		NO REASON TO THINK RESPONDENT HAS ANY COGNITIVE LIMITATIONS.	INDIVIDUAL CONSENT FORM
		2	COGNITIVE LIMITATIONS OR HEALTH	STOP INTERVIEW

Section B: Socio-Demographic Characteristics			
Qn. 5	Household ID:		
Qn. 6	Person (HH member) Number interviewed from the HH		
Qn.7	Type of Household?	1) Nuclear HH 2) Extended HH 3) Others (Please Specify).....	
Qn. 8	What is your mother tongue ? (Language, you learned first, the language that you can express yourself fully in, or voluntarily Identify with.	1. TWI 2. GA 3. EWE 4. HAUSA 5. OTHERS.....	
Qn. 9	INTERVIEWER: Record sex of the respondent	1. FEMALE 2. MALE	
Qn. 10	What day, month and year were you born? DD /MM / YYYY	/...../...../..... (IF UNKNOWN WRITE 99/99/9999)	
Qn.11	How old are you now? INTERVIEWER: This would be age at last birthday. If don't know probe.	AGE IN YEARS:	-----
Qn.12	MARITAL STATUS	1. NEVER MARRIED	
		2. CURRENTLY MARRIED	
		3. COHABITING	
		4. SEPARATED/DIVORCED	

		5. WIDOWED	
	INTERVIEWER:	CODE	RESPONSE
Qn.13	IF SEPARATED, DIVORCED OR WIDOWED For how many years have you been Separated, divorced or widowed? <i>INTERVIEWER: if less than 1 year, enter "00"</i>	NUMBER OF YEARS - DON'T KNOW	
Qn.14	For how many years have you been Married or Living together? INTERVIEWER: if less than 1 year, enter "00"	NUMBER OF YEARS -8 DON'T KNOW	
Qn.15	What is the <u>highest level</u> of education that you have <u>completed</u> ?	1) LESS THAN PRIMARY SCHOOL 2) PRIMARY SCHOOL COMPLETED 3) SECONDARY SCHOOL COMPLETED 4) HIGH SCHOOL(OR EQUIVALENT) COMPLETED 5) COLLEGE/PRE- UNIVERSITY/UNIVERSITY COMPLETED 6) POST GRADUATE DEGREE COMPLETED	
Qn.16	How many years of school, including higher education have you completed?	NUMBER OF YEARS - DON'T KNOW	
Qn.17	Which religious denomination do you belong to?	1) NO, NONE 2) CHRISTIANITY (INCLUDING ROMAN CATHOLIC, PROTESTANT, ORTHODOX, OTHER). 3) ISLAM 4) TRADITIONAL 5) REFUSED 6) OTHERS:	
Qn.18	Have you always lived in this Village/town/city?	1.YES 2.NO	
Qn.19	How long have you been living (continuously) in this area? <i>INTERVIEWER: IF LESS THAN 1 YEAR, ENTER "00".</i>	NUMBER OF YEARS - DON'T KNOW 999.....	
Qn.20	Where have you lived for most of your adult life (18+ years)?	1) IN SAME COMMUNITY/LOCALITY/NEIGHBORHOOD 2) IN ANOTHER CITY IN THIS REGION 3) IN ANOTHER RURAL AREA IN THIS REGION 4) IN ANOTHER CITY OUTSIDE THIS REGION BUT IN COUNTRY 5) IN ANOTHER RURAL AREA OUTSIDE THIS REGION BUT IN COUNTRY 6) OUTSIDE THE COUNTRY	
Section C: Work History and Benefits			
Now I would like to ask you some questions about any work you may be doing now or have done in the past. I will ask some questions about the type and amount of your current or past work, benefits, if any, you may be receiving or have received from your work, and the reasons for why you may not be working currently			
Qn.21	As you know, some people take jobs for which they are paid in cash or kind. Other people sell things, have a small Business, or work on the family farm or family business. Have you ever in your life done any of these things or any type of work (not including housework)?	1.YES 2.NO	
Qn.22	At what age did you start working for pay?		

Qn.23	What is the main reason you are not currently Working? INTERVIEWER: <u>Only one answer</u> allowed	1) HOMEMAKER / CARING FOR FAMILY 2) CANNOT FIND A JOB 3) DO VOLUNTARY WORK (NOT PAID OR SUBSISTENCE WORK) 4) IN STUDIES / TRAINING 5) HEALTH PROBLEMS/DISABLED 6) HAVE TO TAKE CARE OF FAMILY MEMBER 7) DO NOT HAVE THE ECONOMIC NEED 8) MY FAMILY/SPOUSE DOESN'T WANT ME TO WORK 9) RETIRED / TOO OLD TO WORK 10) LAID OFF / MADE REDUNDANT 11) SEASONAL WORK..... 12) VACATION / SICK LEAVE / VOLUNTARY AND 13) TEMPORARY TIME OFF: 14) OTHER, SPECIFY:				
Qn.24	Are you actively looking for work at this time?	1.YES 2.No				
Qn.25	How many years ago did you start Working?		.			
Qn. 26	At what age did you start working for pay?	YEARS OF AGE 8 <i>DON'T KNOW</i>				
Qn.27	Have you worked for at least 2 days during the last 7 days?	1.YES 2.No				
Qn.28	In the last 12 months, for your main job, what has been your main occupation? INTERVIEWER: Write exactly what the respondent says - write clearly in capital letters.					
Qn. 29	Do/did you usually work throughout the year, or do/did you work seasonally, or only once in a while for your main job?	1 WORK THROUGHOUT THE YEAR 2 SEASONALLY/PART OF THE YEAR 3 ONCE IN A WHILE				
Section D: Health State Descriptions						
Now we will switch to questions specifically about your health. The first questions are about your overall health, including both your physical and your mental health. By difficulty in the second question, I mean requiring increased effort, discomfort or pain, slowness or changes in the way you do the activity.						
Qn.30.	In general, how would you rate your health today?	1. Very good 2. Good 3. Moderate 4. Bad 5. Very bad				
Qn.31.	Overall in the last 30 days, how much difficulty did you have with work or household activities?	1 None 2 Mild 3 Moderate 4 Severe 5. Extreme/cannot do				
MOBILITY						
Now I would like to review the different functions of your body. When answering these questions, I would like you to think about the last 30 days, taking both good and bad days into account. When I ask about difficulty, I would like you to consider how much difficulty you have had, on average, in the last 30 days, while doing the activity in the way that you usually do it. Let me remind you, by difficulty I mean requiring increased effort, discomfort or pain, slowness or changes in the way you do the activity. <i>INTERVIEWER: Read and show scale to respondent.</i>						
		NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO(5)
Qn.32.	Overall in the last 30 days, how much difficulty did you have <u>with moving around</u>	1	2	3	4	5
Qn.33.	Overall in the last 30 days, how much difficulty did you have in <u>vigorous activities</u> ('vigorous activities')	1	2	3	4	5

require hard physical effort and cause large increases in breathing or heart rate)?					
SELF-CARE					
	NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO(5)
Qn.34. Overall in the last 30 days, how much difficulty did you have ... with self-care, such as bathing/washing or dressing yourself?	1	2	3	4	5
Qn.35. Overall in the last 30 days, how much difficulty did you have in taking care of and maintaining your general appearance (for example, grooming, looking neat and tidy)?	1	2	3	4	5
Qn.36. Overall in the last 30 days, how much difficulty did you have in staying by yourself for a few days (3 to 7 days)?	1	2	3	4	5
PAIN AND DISCOMFORT					
	NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO (5)
Qn.37. Overall in the last 30 days ...how much of bodily aches or pains did you have?	1	2	3	4	5
Qn.38. Overall in the last 30 days how much bodily discomfort did you have?	1	2	3	4	5
Qn.39. Overall in the last 30 days ... how much difficulty did you have in your daily life because of your pain?	1	2	3	4	5
COGNITION					
	NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO (5)
Qn.40. Overall in the last 30 days, how much difficulty..... did you have with concentrating or	1	2	3	4	5
Qn.41. Overall in the last 30 days, how much difficulty ... did you have in learning a new task (for Q2011example, learning how to get to a new place,	1	2	3	4	5
Qn.42. Overall in the last 30 days, how much difficulty learning a new game, learning a new recipe)?	1	2	3	4	5
INTERPERSONAL ACTIVITIES					
	NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO (5)
Qn.43. Overall in the last 30 days, how much difficulty did you have, with personal relationships or participation	1	2	3	4	5
Qn.44. Overall in the last 30 days, how much difficulty did you have, in dealing with conflicts and tensions with others?	1	2	3	4	5
Qn.45. Overall in the last 30 days, how much difficulty did you have, with making new friendships or maintaining current friendships?	1	2	3	4	5
Qn.46. Overall in the last 30 days, how much difficulty did you have, with dealing with strangers?	1	2	3	4	5
SLEEP AND ENERGY					
	NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO (5)
Qn.47. Overall in the last 30 days, how much of a problem did you have with sleeping, such as falling asleep, waking up frequently during the night or waking up too early in the morning?	1	2	3	4	5

Qn.48. Overall in the last 30 days, how much of a problem did you have <u>due to not feeling rested and refreshed</u> during the day (for example, feeling tired, not having energy)?	1	2	3	4	5
AFFECT	NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO (5)
Qn.49. Overall in the last 30 days, how much of a problem did you have..... <u>with feeling sad, low or depressed</u> ?	1	2	3	4	5
Qn.50. Overall in the last 30 days, how much of a problem did you have <u>with worry or anxiety</u> ?	1	2	3	4	5
VISION (Respondent should answer, as when wearing glasses/contact lenses if used)	RESPONSE				CODE
Qn.51. When was the last time you had your eyes examined by a medical professional? <i>INTERVIEWER: ENTER YEARS AGO. ENTER "00" IF LESS THAN 1 YEAR.</i>	YEARS AGO: _____ -8 DON'T KNOW 98 NEVER				
Qn.52. Do you use eyeglasses or contact lenses to see far away (for example, across the street)?	1=Yes 2=No				
Qn.53. Do you use eyeglasses or contact lenses to see up close (for example at arm's length, like when you are reading)?	1=Yes 2=No				
	NONE (1)	MILD (2)	MODERATE (3)	SEVERE (4)	EXTREME /CANNOT DO (5)
Qn.54. In the last 30 days, how much difficulty did you have in seeing and recognizing an object or a person you know <u>across the road</u> (from a distance of about 20 meters)?	1	2	3	4	5
Qn.55. In the last 30 days, how much difficulty did you have in seeing and recognizing <u>an object at arm's length</u> (for example, reading)?	1	2	3	4	5
Section 3000: Risk Factors and Preventive Health Behaviours					
We would now like to ask you some questions about your habits, health behaviours and awareness about health. This includes things like smoking, drinking alcohol, eating enough fruits and vegetables as part of your diet and your levels of physical activity. I will start with questions about smoking habits.					
TOBACCO AND OTHER SMOKING					
Qn.56. Have you ever smoked tobacco or used smokeless tobacco?	1)Yes 2) No				
Qn.57. Do you currently use (smoke, sniff or chew) any tobacco products such as cigarettes, cigars, pipes, chewing tobacco or snuff?	1)Yes Daily 2)Yes but Not Daily 3) No, Not at all				
Qn.58. For how long have you been <u>smoking</u> or <u>using</u> tobacco daily? <i>INTERVIEWER: If less than one month – enter</i>	YEARS _____ MONTHS _____ -8 DON'T KNOW				
Qn. 59. On average, how many of the following products do you smoke or use each day?					
Product name	Number per day				
Qn. 59 (a) Manufactured cigarettes					
Qn. 59 (b) Hand-rolled cigarettes					
Qn. 59 (c) Pipefuls of tobacco					
Qn. 59 (d) Cigars, cheroots, cigarillos, bidis					
Qn. 59 (e) Smokeless tobacco					
Qn. 59 (f) Other, specify:					
Qn. 60. In the past, did you ever smoke tobacco or use Smokeless tobacco daily?	1)Yes 2) No				

Qn. 61. How old were you when you stopped smoking or using tobacco daily?	YEARS_____MONTHS_____				
	-8 DON'T KNOW				
Qn. 62 How long ago did you stop smoking or using tobacco daily? <i>INTERVIEWER: If less than one month – enter “00” for months.</i>	YEARS_____MONTHS_____				
	-8 DON'T KNOW				
ALCOHOL					
Qn. 63 Have you ever consumed a drink that contains alcohol (such as beer, wine, spirits, etc.)?	1)Yes 2) No, Never				
Qn. 64. Have you consumed alcohol in the last 30 days?	1)Yes 2) No				
Qn. 65. During the past 7 days, how many drinks of any beverage did you have each day?					
DAY OF THE WEEK	Type of Alcohol	No of drinks that day	Unit of measure		
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					
Saturday					
Sunday					
Qn. 66. In the last 12 months, how frequently on how many days on average have you had at least one alcoholic drink?	0. NO DAYS 1. LESS THAN ONCE A MONTH 2. ONE TO THREE DAYS PER MONTH 3. ONE TO FOUR DAYS PER WEEK 4. FIVE OR MORE DAYS PER WEEK				
Qn. 67 In the last 12 months, on the days you drank alcoholic beverages, how many drinks did you have on average?					
NUTRITION					
Studies have shown that nutrition and life-style are very important health factors. I want to ask you a few questions about your diet. I am going to ask you about the fruit and vegetables you usually eat. Name fruits in the local names; Twi, Hausa language etc, otherwise English. Show Nutrition card to respondent)					
Qn. 68 How many servings of fruit* do you eat on a typical day?(TICK PLS)* Banana, mango, apple, orange, papaya, tangerine, grapefruit, peach, pear (Others-specific)	Name fruit	No. of serving		Remark	
Qn. 69 How many servings of vegetables* do you eat on a typical day? * Tomato, cauliflower, potato, cucumber, peas, corn lettuce, squash, bean (country-specific) IF NOT KNOWN 8=DON'T KNOW	Name Vegetable	No. of serving		Remark	
	Every month (1)	Almost every month (2)	Some months, but not every month (3)	Only in 1 or 2 months (4)	Never (5)
Qn. 70 In the last 12 months, how often did you ever eat less than you felt you should because there wasn't enough food?	1	2	3	4	5
Qn. 71. In the last 12 months, were you ever hungry, but didn't eat because you couldn't afford enough food?	1	2	3	4	5

PHYSICAL ACTIVITY		
Next I am going to ask you about the time you spend doing different types of physical activity in a typical week. Please answer these questions even if you do not consider yourself to be an active person. Think first about the time you spend doing work. Think of work as the things that you have to do such as paid or unpaid work, household chores, harvesting food/crops, fishing or hunting for food, providing care or seeking employment. In answering the following questions 'vigorous activities' require hard physical effort and cause large increases in breathing or heart rate, 'moderate activities' require moderate physical effort and cause small increases in breathing or heart rate.		
Qn. 72. Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate, [like heavy lifting, digging or chopping wood] for at least 10 minutes continuously? <i>INSERT EXAMPLES & USE SHOWCARD</i>	1) Yes 2) No	
Qn. 73. In a typical week, on how many days do you do vigorous-intensity activities as part of your work?	DAYS _____	
Qn. 74. How much time do you spend doing vigorous-intensity activities at work on a typical day?	HOURS: _____ MINUTES _____	
Qn. 75. Does your work involve moderate-intensity activity that causes small increases in breathing or heart rate [such as brisk walking, carrying light loads, cleaning, cooking, or washing clothes] for at least 10 minutes continuously? <i>INSERT EXAMPLES & USE SHOWCARD</i>	1) Yes 2) No	
Qn. 76. In a typical week, on how many days do you do moderate-intensity activities as part of your work?	DAYS _____	
Qn. 77. How much time do you spend doing moderate-intensity activities at work on a typical day?	HOURS: _____ MINUTES _____	
The next questions exclude the physical activities at work that you've already mentioned. Now I would like to ask you about the usual way you travel to and from places. For example, getting to work, to shopping, to the market, to place of worship. [Insert other examples if needed]		
Qn. 78. Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?	1) Yes 2) No	
Qn. 79. In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?	DAYS.....	
Qn. 80. How much time would you spend walking or bicycling for travel on a typical day?	HOURS: _____ MINUTES _____	
Qn. 81. In a typical week, on how many days do you walk or ride bicycle for at least 10 minutes continuously to get to and from places?	DAYS.....	
The next questions exclude the work and transport activities that you have already mentioned. Now I would like to ask you about sports, fitness, leisure and recreational activities [insert relevant terms].		
Qn. 82. Do you do any vigorous intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate [like running or football], for at least 10 minutes continuously? <i>INSERT EXAMPLES & USE SHOWCARD</i>	1) Yes 2) No	
Qn. 83. In a typical week, on how many days do you do vigorous intensity sports, fitness or recreational (leisure) activities?	DAYS.....	
Qn. 84. How much time do you spend doing vigorous intensity sports, fitness or recreational activities on a typical day?	HOURS: _____ MINUTES _____	
Qn. 85. Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that causes a small increase in breathing or heart rate [such as brisk walking, cycling or swimming] for at least 10 minutes at a time? <i>INSERT EXAMPLES & USE SHOWCARD</i>	1) Yes 2) No	
Qn. 86. In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?	DAYS.....	
Qn. 87. How much time do you spend doing moderate intensity sports, fitness or recreational (leisure) activities on a typical day?	HOURS: _____ MINUTES _____	
The following question is about sitting or reclining at work, at home, getting to and from places, or with friends including time spent [sitting at a desk, sitting with friends, travelling in car, bus, train, reading, playing cards or watching television], but do not include time spent sleeping. <i>INSERT EXAMPLES & USE SHOWCARD</i>		
Qn. 88. How much time do you usually spend sitting or reclining on a typical day?	HOURS: _____ MINUTES _____	

Section E: Chronic Conditions and Health Services Coverage

Now I would like to read you questions about some health problems or health care needs that you may have experienced, and the treatment or medical care that you may have received.

Qn. 89. Have you ever been diagnosed with/told you have the following diseases Have you been taking medications or other treatment for it in previous 12 months	1. Yes 2. No	Disease Present?		Taking medications??	
	Describe	Yes	No		
1. Arthritis / rheumatism or osteoarthritis)?					
2. Hypertension					
3. Chronic Lung cancer					
4. Diabetes					
5. Asthma					
6. Epilepsy					
7. Ulcers					
8. AIDS					
9. Cataract (a cloudiness in the lens of eye)					
10. Other Cancers					
11. Others chronic diseases; specify:					
Qn.90. During the last year did it happen that for any of these persons, because of lack of money or to avoid the cost, you did not				1.Yes 2. No	

Section F: Social Cohesion

We would like to shift away from questions about your direct health. This section of the survey asks your opinions about other areas and issues in your life. The following questions are to get your opinions about community, social and political aspects in your life.

We'd like to know about some of your involvement in your community. For all of these, I want you just to give me your best guess.

	NEVER	ONCE OR TWICE PER YEAR	ONCE OR TWICE PER MONTH	ONCE OR TWICE PER WEEK	DAILY
Qn. 91. How often in the last 12 months have you attended any public meeting in which there was discussion of local or school affairs?	1	2	3	4	5
Qn. 92. How often in the last 12 months have you met personally with someone you consider to be a community leader?	1	2	3	4	5
Qn. 93. How often in the last 12 months have you attended any group, club, society, union or organizational meeting? worked with other people in your neighborhood to fix or improve Something?	1	2	3	4	5
Qn. 94. How often in the last 12 months have you had friends over to your home?	1	2	3	4	5
Qn. 95. How often in the last 12 months have you been in the home of someone who lives in a different neighborhood than you do or had them in your home?	1	2	3	4	5
Qn. 96. How often in the last 12 months have you socialized with coworkers outside of work?	1	2	3	4	5
Qn. 97. How often in the last 12 months have you attended religious services (not including weddings and funerals)?	1	2	3	4	5
Qn.98. How often in the last 12 months have you gotten out of the house/your dwelling to attend social meetings, activities, programs or events or to visit friends or relatives?	1	2	3	4	5

Appendix 2: Information Sheet And Informed Consent

INTRODUCTION

My name isand a research Assistant to Ms **Jennifer Paula Opio**, a student of University of Ghana, School of Public Health. I am conducting a research on the topic; **Factors Influencing Health and Self-Care of the Elderly in Madina Municipality, Greater Accra, Ghana**. Before you decide whether or not you wish to take part, you should read the information provided below carefully and, if you wish, discuss it with your family and other people who care about you. Take time to ask questions – do not feel rushed or under pressure to make a quick decision. You should clearly understand the risks and benefits of taking part in this study so that you can make a decision that is right for you. This process is known as ‘Informed Consent’. You do not have to take part in this study and a decision not to take part will not affect you’re your livelihood. You can change your mind about taking part in the study at any time you like. Even if the interview has started, you can still opt out. You do not have to give us a reason. If you do opt out, it will not affect you now or in the future.

Purpose of the Study

This study seeks to investigate the factors that influence health and self-care among older persons. This research contributes to the growing knowledge base about the self-care practices of older people in home based setting. You are being invited to take part this study carried out for academic purposes by the student pursuing Masters of Applied Health and social science.

Participant Role

The study involves answering some questions or having some discussions on your views on your health or self-care as an elderly person (60 years and above) in Madina. You should however note that, the interview or discussions will be recorded in a questionnaire. The study participants would include all sampled persons 60 years in Madina Municipality. You are being selected to participate in this research because you fall within this category these persons targeted.

Compensation

You would incur no financial costs for participating in the study neither would you be paid for participating. Should you agree to take part in this study, we would take about between 30 minutes to 45 minutes of your time as you answer the questions. You have the right to continue or to withdraw from the study at any time.

Privacy and Confidentiality

You are assured of your privacy and confidentiality. The information you will share with us, if you participate in this study, would not be shared with any other person except the research team. All information would be coded and your name would not be included in any of our writings. Therefore, no one will be able to identify you by name.

Potential Risk / Benefit

This study is an academic work and there are no direct benefits for participating. However, findings from this research would serve as an important reference for elderly persons in future hopefully if decisions are taken based on these findings. In addition, the researcher would ensure that your participation in this study would cause you minimal harm. However, certain questions relating to the factors influencing your health or self-care may seem sensitive and uncomfortable to some respondents.

Voluntary Withdrawal

Participation in the study is completely voluntary therefore you are free to agree or not to agree to participate in the study. Also, you can always withdraw from the study, even if you had agreed to participate earlier. You can also decline to answer any question that you are not comfortable sharing. You are assured that non-participation in the study will be accepted as your decision without any further questioning.

Data Storage and Usage

The data collected will be written in the questionnaires and then entered in the computer. All these will be kept safe and stored under lock with key. Findings from the research would be shared with Ghana Health Service and the School of Public Health at the end of the study.

If you have any questions regarding your rights as a participant in this study, you may contact me.

ADDRESS OF THE PRINCIPAL INVESTIGATOR:

PAULA JENNIFER OPIO
SCHOOL OF PUBLIC HEALTH.
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA, LEGON.
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This study has been reviewed and approved by the Ghana Health Service- Ethical Review Committee (GHS-ERC). The committee has ensured that during this study, you are protected from any harm that can be attributed to this study. If you have any questions concerning this research, you may contact the administrator of the GHS-ERC, Ms. Hannah Frimpong at: 0507041223/0243235221.

CONSENT

Respondents / participants only:

On my own accord, I hereby consent to be part of the study based on my understanding of what the study entails. I also give permission for my spouse/another member of my family to provide his opinion on my mental status. All these consent I give out of free will.

Sign/Thumbprint.....

Witness's Sign.....

Date.....

Date.....

Name of Researchers:

Researcher's signature..... Date.....

Other Adult Family member only:

On my own accord, I hereby consent to provide a general mental health status information on the elderly who is related to me. I declare that I am in full understanding of what the study entails and do this voluntarily/in my free will.

Sign/Thumbprint.....

Date.....

Sign 2 copies: 1 for participant, 1 for the Principle Investigators file copy.