

UNIVERSITY OF CAPE COAST

PERCEIVED SOCIAL SUPPORT AND ITS EFFECTS ON QUALITY OF  
LIFE AMONG PEOPLE LIVING WITH HIV/AIDS IN KUMASI  
METROPOLIS

HARRIS ANSAH

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METROPOLIS

BY

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DECLARATION

**Candidate's Declaration**

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

Candidate's Signature: ..... Date.....

Name: .....

**Supervisors' Declaration**

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

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

Name: .....

Co-supervisor's Signature.....Date.....

Name: .....

## ABSTRACT

The study examined the perceived social support and its effects on quality of life among people living with HIV/AIDS in Kumasi Metropolis. The descriptive cross-sectional survey design was adopted for the study. Out of a population of 1,027 People Living with HIV/AIDS (PLWHA), 320 were selected through the purposive sampling technique. The SF-36 health survey questionnaire and multidimensional perceived social support questionnaire were used to collect the required data. Data gathered were analysed with the use of both descriptive statistics (frequency, percentages, mean and standard deviation) and inferential statistics (independent sample t-test, Pearson Product Moment Correlation, one-way ANOVA, and linear multiple regression). The study found out that the male PLWHA had a higher quality of life than that of the female PLWHA. The difference in the quality of life was as a result of energy and social functioning dimension of quality of life. In addition, all the three dimensions of social support had a weak relationship with quality of life. However, friends support and family support had a positive relationship with quality of life. Significant others support had a negative relationship with quality of life. Further, there was a statistical significant difference in the quality of life in relation to the age groups of the PLWHA. It was discovered that those in the age groups of 32-38 years enjoyed a higher quality of life as compared to those in the age group of 53-59 years. Finally, friends support was the only social support system which was found to positively influence quality of life. The influence of family support and significant others were not significant. The Ministry of health in collaboration with other important educational agencies should intensify sex education to students, especially the females and community members in order to strengthen awareness of HIV/AIDS.

KEY WORDS

Africa

Blood

HIV/AIDS

Opportunistic diseases

Quality of life

Social support

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DEDICATION

To my mother

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LIST OF ACRONYMS

**AIDS**- Acquired Immune Deficiency Syndrome

**ART**- Anti-Retroviral Therapy

**GDHS**- Ghana Demographic and Health Survey

**GSS**-Ghana Statistical Service

**HIV**-Human Immunodeficiency Virus

**NACP**- National AIDS Control Programme

**PLWHA**-Person Living With HIV/AIDS

**QOL**-Quality of life

**UCC**-University of Cape Coast

**UNAIDS**- United Nations AIDS Programme

**WHO**- World Health Organisation

## CHAPTER ONE

### INTRODUCTION

#### **Background to the Study**

Though social support is important in disease management, the environment where the support is coming from may be indicative of the likely effects on the quality of life of the person who has the disease. This study is situated in a society where human interaction is largely communal and collective in nature, where the society is generally concerned about the welfare of everybody. Much emphasis is about the collective good of the general population as oppose to an individual. Human Immune Deficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS) is a chronic disease therefore, one has to live with it throughout the life span. Adherence to medication is also imperative in the management of the disease, because it is the source for restoration of physical health. Adherence may be underpinned by a number of factors which may contribute positively or negatively. Social support has been identified as a positive contributor to medication adherence, reduction in stigma, discrimination and stress people living with HIV/AIDS (PLWHA) face. Non-adherence could lead to the worsening of condition. Social support is a key factor in the adherence to medication, which has an effect of enhancing the quality of life of people living with HIV/AIDS. People living with HIV/AIDS need social support. However, according to Bonuck, (1993) most of them suffer from discrimination and stigmatization due to lack

of social support. These negative societal attitudes (Bonuck, 1993) may have the tendency to lower their moral, derail self-confidence, self-esteem and sense of belongingness in the community and lower the medication adherence, hence negatively affecting their quality of life.

The social support coming in a form of family, friends and significant others is an aspect the study sought to examine their collective effects on the quality of life of PLWHA. The quality of life assessed is a composite of general health, limitations of activities, physical health problems, emotional health problems, social activities, pain, energy and emotions and general health. What previous studies sought to do was to explore the relationship between social support and quality of life (Xiaoyan & Sato, 2011; Yadav, 2010; Bisschop, Kriegsman, Beekman & Deeg, 2004). In relation to this study, the quest is to examine the effects of perceived social support on quality of life, within an environment where social support is perceived to be available.

HIV/AIDS has been identified as one of the most challenging health conditions globally since there is no cure for it at the moment. According to Barnett and Whiteside (2002), during the outbreak of the HIV/AIDS pandemic, most governments did not give the needed attention to curb the spread of the disease and this led to the wide spread of the virus through various means. HIV/AIDS is widely associated with sexual promiscuity, homosexuality and illicit drug users who use the same injection. These reactions have led to Persons Living with HIV/AIDS (PLWHA) to be faced with various forms of social humiliation and stigmatization which is similar to that faced by patients with leprosy in Biblical times (Kartikeyan, Bharmal, Tiwari, & Bisen, 2007).

The burden of Human Immune Deficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) is an important global health challenge. Many people lose their lives through this condition. From a worldwide perspective, 1.8 million people died from HIV related disease conditions in 2009 (World Health Organisation [WHO], 2011). HIV/AIDS was reported to be the third leading cause of death in developing countries including Ghana (WHO, 2011). In Ghana, evident reported in the recent TV3 news on 5 September, 2017 shows that HIV/AIDS, is among the first ten diseases that kill people in Ghana. A total of 1.1 million people were reported to have globally died on an account of HIV/AIDS in 2015 (WHO, 2015). These numbers translate into loss of man power to the countries and creation of more orphans. There are 36.7 million PLWHA in 2015 (WHO, 2015). Besides, millions of dollars are expended on the management of the condition at the expense of other pressing needs of the society such as poverty eradication and the eradication of communicable diseases. The condition appears to affect the most productive population of the society. People between the ages of 15 to 49 years are the mostly affected, which account for an estimated prevalence rate of 0.8% (WHO, 2015). The incidence of HIV/AIDS, in terms of numbers varies, with trends changing from country to country or from region to region. The badly hit region according to WHO is Sub-Saharan African region (WHO, 2015).

The burden in the African region is quite enormous as the scarce resources available to the continent are not even enough in dealing with existing communicable diseases that have plagued the continent. PLWHA in Africa may account for 70% of the global population of people living with



HIV according to a global observatory report (WHO, 2015). In Africa, 1 in 25 adults is living with HIV. An estimated death of 800, 000 were reported by WHO in 2015, which comprised both adult and children in Africa region.

In Ghana, the situation largely represents that of the African continent. The government through the Ghana AIDS Commission commits resources to the management of the disease and execution of preventive campaigns across the country. It has been reported that about 13,000 people died of HIV/AIDS as at 2015 in Ghana and the number of people living with HIV as at 2015 was 270,000 (UNAIDS, 2015). Besides, demographic profile of Ghana reported in 2016 put the PLWHA as at 2015 to be 274,600. Similarly, adults above 15 years of age, living with HIV were 260,000. The difference in numbers appears to suggest that the adult population is largely affected by HIV. A total of 160,000 children were orphaned by HIV/AIDS as at 2015 (UNAIDS, 2015). A significant portion of people living with HIV/ AIDS reside in low to middle income countries (UNAIDS, 2015).

The global prevalence of HIV as at 2015 was recorded to be 0.8% accounting for people within the age range of 15 to 49 years (WHO, 2016). It is estimated that approximately 6,000 people are infected with HIV every day at the global level (UNAIDS, 2008). Within the African context, the prevalence rate as at 2015 was 4.4 %. (WHO, 2016). In Ghana, the prevalence rate of HIV/AIDS as at 2015 was 1.6% (UNAIDS, 2016).The UNAIDS in 2015 reported that 250,000 people are living with it in Ghana with a prevalence rate of 1.5% in 2014. Ghana is ranked, 23<sup>rd</sup> country in the world with HIV/AIDS infected people (Central Intelligence Agency, 2015). HIV negatively affects life expectancy, health, education and the economy. It has

serious social and psychological implications on both the infected and affected. Thus, HIV transmission and the capacity to deal with its consequences cannot be separated from the social, cultural, spiritual, demographic, economic and political climate of Ghana (NACP & Ministry of Health, 2010).

Studies have been conducted to determine the effect of social support on quality of life. Such studies have indicated a positive relationship. For example, Xiaoyan and Sato (2011) found out that there was a positive relationship between perceived social support and quality of life among HIV patients. Sanyang (2011) found positive relationship between quality of life of HIV/AIDS patients and the social support they receive. The available literature has revealed a positive outcome in the relationship between perceived social support and quality of life of PLWHA. These studies are mainly done in western countries, where the societal arrangement appears to be individualised as against countries in the Sub-Saharan Africa, including Ghana, where it is collective. There seem to be an absence of information regarding the effects of perceived social support on the quality of life of PLWHA, this study sought to fill that knowledge gap.

### **Statement of Problem**

The condition of HIV/AIDS affects all dimensions of a person's life: physical, psychological, social and spiritual. Social support can help people cope more effectively with each stage of the infection and enhance quality of life. With adequate support, PLWHA are more likely to be able to respond adequately to the stress of being infected and are less likely to develop serious mental health problems. HIV/AIDS has become a global health concern

despite the numerous interventions to curb the epidemic. Several studies have established the presence of depression in PLWHA (Ownby, Jacobs, Waldrop-Valverde, & Gould, 2010).

It is, however, sad for one to note that the treatment of the HIV/AIDS has mainly been towards the provision of Anti-Retroviral Therapy (ART) to help fight the disease progression and to improve the quality of life of PLWHA (UNAIDS, 2015). At the moment most intervention for HIV/AIDS patients are skewed towards biomedical approach using ART and family relationship support to manage the disease.

Per policy treatment of HIV/AIDS in Ghana, every person living with HIV/AIDS must have a treatment supporter before treatment commences. The intention is to provide social support to the person. Mhaka-Mutepfa (2010) found from his study that although social support is often provided for HIV/AIDS patients, such support does not correlate with their quality of life. In Ghana, it appears not much empirical studies have been conducted on the phenomenon. In my personal assessment of the policy treatment, I believe the policy treatment of HIV/AIDS has not attained its goal. This therefore gives me the urge to conduct an empirical study to ascertain the perceived social support and its effect on quality of life among PLWHA in the Kumasi Metropolis.

### **Purpose of the Study**

The aim of this study was to examine the perceived social support and its effect on quality of life among PLWHA. Specifically, the study sought to:

1. investigate gender differences in quality of life of PLWHA

2. explore the relationship between perceived social support and quality of life among PLWHA.
3. examine age difference in quality of life of PLWHA
4. examine the effect of perceived social support on quality of life among PLWHA.

### **Research Hypotheses**

In order to address the problem identified, the following research hypotheses were formulated and tested:

1. H<sub>0</sub>: There is no statistical significant difference in gender in the quality of life of PLWHA.  
H<sub>A</sub>: There is a statistical significant difference in gender in the quality of life of PLWHA.
2. H<sub>0</sub>: There is no statistical significant relationship between perceived social support and quality of life of patients.  
H<sub>A</sub>: There is a statistical significant relationship between perceived social support and quality of life of patients.
3. H<sub>0</sub>: There is no statistical significant difference in age groups of PLWHA in terms of quality of life.  
H<sub>A</sub>: There is a statistical significant difference in age groups of PLWHA in terms of quality of life.
4. H<sub>0</sub>: There is no statistical significant effect of perceived social support on quality of life of PLWHA.  
H<sub>A</sub>: There is a statistical significant effect of perceived social support on quality of life of PLWHA.

### **Significance of the Study**

The study would be beneficial to several stakeholders such as families, friends, counsellors of HIV/AIDS, researchers and the public in general. In the first place, family members would see the usefulness of providing support to people living with HIV/AIDS in order to improve their general health status. In case the study shows that friends play a significant role, they would then play their roles in sustaining the lives of those affected with the disease so as to improve their general health condition.

Counsellors and clinical health psychologists, through the finding of this study, would be guided as to how to tailor their programmes in order to benefit PLWHA. The finding would help them identify where crucial support services are needed so as to pay much attention in their services. The public would also be aware on the need to offer support to PLWHA. This would help to improve the collective efforts in providing the needed support to such individuals. Researchers would also benefit by knowing the effect of perceived social support on quality of life among PLWHA. This would broaden understanding across various jurisdictions even outside the study area and beyond the geographical boundaries of the country of study. By this, it would definitely add to existing literature on perceived effect of social support on quality of life among PLWHA.

### **Delimitations**

The study focused on the effect of perceived social support on the quality of life among PLWHA in the Kumasi Metropolis. It was restricted to people living with HIV/AIDS, who access health care service in Kumasi South Hospital. It included respondents who were 18 years and above, have been on

treatment for at least one year, has not defaulted on drugs and has a CD4 count not less than 350. In terms of content, the study focused on determining: differences in the quality of life of PLWHA by gender, relationship between perceived social support and quality of life, differences in age groups of PLWHA in terms of quality of life enjoyed, and significant effect of perceived social support on quality of life of PLWHA.

### **Limitations**

The study was very sensitive hence it is believed to have been limited in terms of responses that have been provided by the respondents in addressing questions asked in the questionnaire. This means that respondents might have withheld some vital information from the study.

Others also might have faked responses which might have been permitted and made easy as a result of the questionnaire, a self-report measure, which was used in the data collection.

Also, the main instrument for data collection was questionnaire. Questionnaires have low response rate and also the possibility of the respondents' biases could not be ruled out.

However, measures were put in place to reduce these effects on the study. The purpose of the study was explained to the respondents and encouraged to participate in the study. The respondents were to voluntarily participate and were at liberty to withdraw their participation where they felt uncomfortable to continue. They were also assured of the confidentiality of the responses they provided. Those opted to participate were given informed consent forms to fill.

### **Definition of Terms**

The following terms have been operationally defined for the purpose of the study:

**Person Living With HIV/AIDS (PLWHA):** This refers to any individual who is 18 years old and above diagnosed as HIV positive.

**Social Support:** social support is described as a multifactor construct that includes the structures of an individual's social relationships and the functions the relationships provide

**Quality of Life:** Quality of life is an individual's perception of the position in life in the context of the culture and value systems in which they live in relation to their goals, expectations, values and concerns, incorporating physical health, psychological state, level of independence, social relations, personal beliefs and their relationship to salient features of the environment.

### **Organisation the Study**

The research is organized into five chapters, with each chapter dealing with an aspect of the study. The first chapter dealt with the background of the study, statement of the problem, purpose of the study, research hypotheses, delimitation, limitation and significant of the study. Related literature was reviewed in the second chapter while the third chapter was devoted to methodology of the study which included the research design population, sample and sampling procedure and descriptions of research instrument used for data gathering, data collection and the method of data analysis. In the fourth chapter, the results and discussion of the results are done. Chapter five was devoted to summary of the study, conclusion and recommendations.

## CHAPTER TWO

### LITERATURE REVIEW

#### **Introduction**

This chapter reviews studies conducted by other researchers that were considered related to the study. The review of related literature allowed comparison of findings of this study and other similar studies to provide a basis for confirming or refuting earlier findings and conclusions and also for situating the current study. The chapter was divided into theoretical review, empirical review and conceptual framework. Under the theoretical reviews, various theories relating to the current study such as the prosocial theory which comprises kin selection theory, the social exchange theory, instincts and genes theory and reciprocity norm theory were reviewed. Concepts reviewed are the concept of HIV/AIDS, effect of HIV/AIDS, quality of life, and social support. The empirical perspective also reviewed related works conducted by other researchers in the area of social support and its effect on quality of life of PLWHA. The chapter ends with the conceptual framework.

#### **Theoretical Review**

##### **Kin Selection Theory (1964)**

The theoretical framework provides an insight to the study in context. The social support and quality of life have been explored in some studies and indicate that, there is a relationship between social support and quality of life. There are theories that provided an explanation to the social support and



quality of life. These theories share different perspectives on social support and quality of life. The prosocial theories and social support theories appeared to provide the theoretical underpinning of social support, whereas the objective, subjective, existential and integrative perspectives of quality of life provides the theoretical underpinning for quality of life in the study.

The prosocial theories comprise the Kin selection theory, the social exchange theory, instincts and genes theory and reciprocity norm theory. Social support theories comprise the stress and coping theory, the social construction theory and relationship theory. Though these social support theories attempt to explain social support, the social construction theory appeared to explain social support from a dimension of perception. More so, perceived social support is a subjective phenomenon, therefore its measurement is from self-report. The subjective theory of quality of life appeared to explain quality of life from a subjective dimension since the experience of quality of life may differ from a person to another.

The Kin Selection theory asserts behaviour that assists the genetic relative is engineered by natural selection (Hamilton, 1964; Meyer, 1999). It continues to say that there is the possibility of passing one genetic makeup along not by transferring to children, but ensuring that their relatives that share similar genetic makeup have children. If an individual shares some of the blood relation genes, the more likely the person will ensure the relative's survival, the possibility that the person's genes will appear in future relatives. People are likely to help other people who they think are genetically related. In the context of the study, if an HIV/AIDS patient receives social support from family members, it is understood that, they share similar genes of which the

family members want the patient to survive in order to have children so that their genes could flourish in future generations.

The theory of the reciprocity norm, suggests that people assist other people with the expectation that they will be helped in the future. This theory brings to the fore the expectation value people attach to helping other people. Besides, people depend on one other for survival. In relation to this study, family members, friends and significant others are more likely to help an HIV/AIDS infected person so as to be helped if they are affected by same or similar condition.

Another theory that provides insight into social support is the social exchange theory. People are likely to help other people based on the costs and benefits for helping. People assist other people based on the gains and losses they stand to achieve. That is, people are likely to help if there is the possibility that the person will gain and will not help if there is a possibility that the person will lose. Situating the study in this context, family members, friends and significant others are likely to help an HIV/AIDS patient if by doing so will result in a gain and may not help if it will result in losses.

Some other theories sought to explain social support from the stress and coping perspective, social constructionist perspective and the relationship perspective (Lakey & Cohen, 2000). The stress and coping theory of social support posits that any act that seeks to lessen the effects of life events that are stressful on health through the act of others that are supportive or the belief of the existence of support. The support provided appear to neutralise the harmful effects of the stress, leading to improved coping abilities, whereas the belief in the existence of a support lessens the likelihood of appraising a stressful event

harmful. The extent to which stress is lessened is a function of equal measure of support to the stressful event (Cohen & McKay, 1984). According to Cohen and Lakey (2000), social support enhances wellbeing and health because it promotes coping abilities. Social support in the way of people who are under stress is likely to influence the way they interpret life events. People who are under stress are likely to interpret stressful events less negatively (Cohen & McKay, 1984).

The social constructionist theory explains social support from the view that an individual's thoughts and perceptions about the world are influenced by the environment he finds himself. That is, individuals form their own thoughts, views and explanations of the world, these thoughts and perceptions are as a result of the social context of the individual. Example, an individual who perceives that his family members are supportive is likely to view the world as supportive. However, an individual who does not perceive his family to be supportive is likely to perceive the world as not supportive. Because people views are socially constructed in different social context, the interpretation of the world may not be same. The perspective emphasised that, there may not be consensus on what constitute behaviours that are supportive. Thus, people may perceive social support differently. In addition, when people have stable beliefs about supportiveness of other people, daily thoughts of social support is shaped into the already existing beliefs. Thus, once a person perceives that social support is always available, that thought is extended to future social support. Such people may view supportive behaviours as more supportive than those without stable beliefs. The theory posits that people who perceived social support is as a result of their subjective thoughts and views

they have about their social context which tends to influence their perception outside their social context. People who perceive social support in their social context are likely to perceive similar social support outside their social context. The perception people form is as a result of the interaction with people. Positive thoughts about social relations are thought to stimulate positive thought about self, which in turn lessens emotional distress. However, negative thoughts about social relations stimulate negative thoughts about self, which in turn stimulates emotional distress. Perceived support promotes self-esteem which leads to health outcomes (Lakey & Cohen, 2000). This theory appears to explain perceived social support because it explains the beliefs of people as oppose to the stress and coping theory which explains social support from an actual support received. Social support has many benefits to an individual, especially on health grounds. People who are ill are likely to have their quality of life compromised. Social support comes in as a buffer to provide such rescue to people like that, to improve their quality of life.

Quality of life is understood from different perspectives. The theoretical basis of quality of life is expressed in the various perspective of quality of life. Available literature provides the evidence of quality of life from an economic perspective, sociological perspective (Bognar, 2005) and biological perspective (Ventegodt, Merrick & Andersen, 2003). Another approach to quality of life is from the subjective, objective, existential and integrative approach (Ventegodt, Merrick & Andersen, 2003). Beside the aforementioned, other approaches are the bio psychological and medical models (JUCZYN 'SKI, 2006). In addition, health related quality of life is also a perspective of quality of life (JUCZYN 'SKI, 2006). The many facets

of the nature of human life and the differences in people make the explanation of quality of life a challenge. With respect to that therefore, each discipline comes out with its own approaches (JUCZYN ' SKI, 2006).

Of all these approaches, the health related quality of life appeared to address quality of life in relation to the health status of an individual. This theory sought to explain quality of life within the context of a diseased state of an individual. In measuring the health related quality of life, the methodology has largely been subjective. Health related quality of life explains quality of life as a function of the effect of illness an individual has and the associated treatment as perceived by the patient (Schipper, 1999). Health related quality of health concept is multifaceted, encompassing the social, emotional and physical aspects of illness and treatment (Revicki, 1989). Most health related quality of life research largely has been on chronic illness such as Diabetes, Cancers, AIDS and Epilepsy (Juczynski, 2006). The measurement of quality of life has ranged from psychological, sociological, and efficiency in physical functioning (Juczynski, 2006). This measurement of HRQOL was initially done in Cancer treatment (Juczynski, 2006). According to Juczynski (2006), social support is an important resource that must be considered in the measurement of quality of life. This social support ameliorates the stress the illness comes with it. Again, social support appears to help in the adaptation to the illness (Juczynski, 2006).

### **Concept of HIV/AIDS**

According to Karitkeyan et al. (2007) the human race experienced a challenging biological warfare of fighting a new disease which was first reported in the United States of America. AIDS was first recognized in the

United States of America amongst a small cohort of young homosexuals and drug addicts. This new disease gave rise for several studies to be conducted on the virology, immunology, pharmacology, therapeutics and epidemiology of the disease as part of efforts to curb the epidemic and provide quality healthcare to those infected.

Pratt (2003) posits that the origin of HIV still remains a mystery among the scientific community with several theories attempting to explain the genesis of this devastating disease that has bedevilled the human race. The widely acceptable explanation to the origin of HIV is the one which postulates that HIV originated from wild monkeys in Central Africa to human species. This preposition to the genesis of HIV is known as the “Hunter Theory” or the “Bush meat Theory” (Kartikeyan et al., 2007). It is believed that these monkeys and chimpanzees in Africa were infected with the simian immunodeficiency virus which is similar to HIV-1 and HIV-2 many years ago.

HIV may have been transferred into the human body primarily via blood contact with hunters who engaged in killing and butchering these monkeys (Kartikeyan et al., 2007). Once the virus had access into the human system, it realized that it could survive in the body like other infections such as tuberculosis, rabies and brucellosis which survive in both humans and animals, a concept known as “cross-species transmission” or “zoonosis”. Factors such as migration from rural communities into urban cities, change in sexual partners, sexual freedom, deviant sexual behaviours, injecting drug use, life improvements and better living conditions all have accounted for the spread of the virus from rural communities in Central Africa to urban cities and other parts of the world, making the HIV/AIDS to become a terrorizing

pandemic disease (Kartikeyan et al., 2007; Volberding, Sande, Lange, & Greene, 2008). There are also other reports that the disease have been in Africa about a century ago before its outbreak in the 1980s in Europe, Asia and America (Kartikeyan et al., 2007; Volberding, Sande, Lange, & Greene, 2008). There is little evidence to support the theory that oral polio vaccines used in Africa between the 1960s and 1970s are responsible for the presence of the HIV in the human race (Pratt, 2003).

According to 2006 report on global AIDS epidemic by UNAIDS, HIV/AIDS affects the poor and the rich, males and females, the educated and uneducated. It is common in both underdeveloped and developed countries. However, it is higher in third world (underdeveloped) countries like Ghana. The economies of third world countries are badly hit. The HIV is the virus that invades the body's immune system and renders it inefficient to fight against infections, thereby creating the space for opportunistic infections. One is said to have developed AIDS when the person's immune system is compromised and deficient in fighting microorganisms that enter the body. The passage of HIV into the blood stream consequentially destroys certain white blood cells in the body that protect the body against infections (UNAIDS, 2000). A lot of people infected with HIV are relatively healthy and have the chance to live for years with no symptoms or only minor illnesses. They are infected with HIV, but they have not reached the stage of AIDS (UNAIDS, 2000). Although there are treatments that can extend life, HIV/AIDS still manifests as a deadly disease condition. HIV/AIDS cannot be cured but can be treated. AIDS signs and symptoms present in a form of loss of weight, persistent diarrhoea, fever

and fatigue. The signs and symptoms are the manifestations of the signs and symptoms of the opportunistic diseases.

The management of HIV/AIDS involves the use of medication and health education. The medication seeks to slow the rapid multiplication of the virus in the human body. In other words, it reduces the viral load in the human body system. Aside the medication, the adoption of healthy lifestyle is important to the survival of the person. One has to prevent reinfection, co-infection (tuberculosis, hepatitis B, and many others) and infecting other people (WHO, 2007). People living with AIDS are treated with oral medication. It is through the medication that the condition improves. The medication seeks to boost the immunity of HIV/AIDS patients such that the body is able to fight opportunistic infections leading to the general improvement of health of the patients. The introduction of the medication is done at the stage in the disease process where the strength of the body's immunity is below a certain threshold. The CD4 count is mainly used to assess the strength of the immunity of a patient with HIV before the anti- HIV medication is introduced (WHO, 2007).

In the 1980s, infection with HIV/AIDS was equated with impending death as people developed acquired immunodeficiency syndrome (AIDS) (WHO, 2015). This perception was mainly fuelled by non-availability of drugs to treat the disease condition. The contraction of HIV/AIDS meant that one is going to die (WHO, 2015). However, the introduction of antiretroviral therapy (ART) in the 1990s, transformed the outlook of people diagnosed as HIV-positive and the perception of people living with HIV/AIDS. That feat meant that, PLWHA are likely to live longer than expected (WHO, 2015). The



HIV/AIDS patients had the prospect of living with a chronic disease and to contribute positively to the development of the society. Being HIV-positive became less of a threat to survival than before. Life expectancy in people living with HIV/AIDS has increased tremendously with the introduction of the anti-HIV medication which has dramatically changed the disease to a chronic condition (Folasire, Akinyemi & Owoaje, 2014). There appeared to be a sense of hope for PLWHA.

The term people living with HIV/AIDS came into common use, to reflect the long-standing and less risky nature of the problem and also the perceived stereotyping term “HIV/AIDS patients”. This is to give dignity to them and to limit negative attitudes towards PLWHA. In a sense, it seeks to differentiate the individual from the disease, that is, the individual is not the disease, though the individual has the disease.

### **Origin of HIV/AIDS**

The origin of HIV has been a scientific research and debate since the virus was detected in the 1980s. AIDS was first recognised by the United States of America Centre for Disease Control and Prevention in 1981 (WHO, 2015). The first cases were recorded among gay men and intravenous drug users. So many theories have been propounded to explain the origin of HIV/AIDS. These include; Hunters theory, Oral – polio vaccine theory, Contaminated needle theory, and Colonialism theory. HIV infected humans by a process known as Zoonosis. Scientists believed that zoonosis first happened in Africa.

### **Hunter's theory**

It is the most commonly accepted theory. It is said that the virus (HIV) was transferred to humans as a result of chimps being killed and their meat being used as food or their blood getting into cuts or wounds of the hunter. SIV on a few occasions adapted itself within its new human host and became HIV. Every time it passed from a chimpanzee to a man, it would have developed in a slightly different way within his body, and thus produced a slightly different strain.

### **Oral polio vaccine Theory**

This theory also posits that the virus was transmitted through various medical experiments (iatrogenically) especially through the polio vaccines. The oral polio vaccine called Chat was given to millions of people in the Belgian Congo, Ruanda and Burundi in the late 1950s. Then it was cultivated on kidney cells taken from the chimps infected with SIV in order to reproduce the vaccine. This is the main source of contamination, which later affected large number of people with HIV.

### **Colonialism**

The colonial rule in Africa was particularly harsh and the locals were forced into labour camps where sanitation was poor and food was scarce. SIV could easily have infiltrated the labour force and taken advantage of their weakened immune systems. Labourers were being inoculated with unsterile needles against diseases such as smallpox to keep them alive and working. Also, many of the camps actively employed the services of commercial sex workers to keep the workers happy. All these may have led to the transmission and development of AIDS as a disease.

### **Conspiracy theory`**

According to this theory, a survey conducted among African Americans found that HIV was manufactured as part of a biological warfare programme, designed to wipe out large numbers of black and homosexuals. The theory holds that, the virus was spread through small pox programme or to gay men through hepatitis B vaccine trials.

### **Types of HIV**

There are two types of HIV, namely HIV-1 and HIV-2. HIV-1 accounts for 99% of more than 40 million infections globally (UNAIDS, 2016). In the world situations, the predominant virus is HIV-1, and generally, when people refer to HIV without specifying the type of virus, they are referring to HIV-1. These two types of HIV have several sub-types in various geographical locations globally. The presence of the *u<sub>pu</sub>* gene and *u<sub>px</sub>* gene in HIV-1 and HIV-2 respectively distinguishes these two types of HIV from each other (Kartikeyan et al., 2007). HIV-2 is less easily transmitted and it has a longer incubation period between infection and manifestation of the illness. This type of virus has a slow disease progression and it is commonly concentrated in West Africa and is rarely found elsewhere.

There are many evidences to show that an individual can be infected with both HIV-1 and HIV-2 (Pratt, 2003; Volberding et al., 2008).

### **Modes of transmission of HIV**

Notwithstanding the fact that both types (HIV-1 and HIV-2) are slightly different, their method of transmission is through intimate connection where blood or semen is swapped (Kartikeyan et al., 2007). Pratt (2003) identified the main mode of HIV transmission as;

1. Unprotected sexual contact with an HIV infected person,
2. Injecting drug use,
3. Mother to child,
4. Occupational exposure and
5. Iatrogenic transmission.

Although sexual transmission is known to account for the highest mode of HIV infection throughout the world, other means of HIV transmissions exist in different geographical location, cultures and among different population. For example, sexual transmission may be high in a developing country like Ghana where our culture permits polygamy as compared to a developed economy like Germany where such practise is frowned upon. Speaking in terms of geographical location, homosexual or bisexual transmission of HIV is high in Western Europe, North America and Australasia, probably because such practices are common and have been legalised but less in Sub-Saharan Africa. Rather, heterosexual transmission of HIV is high in Sub-Saharan Africa, the Caribbean, South East Asia and Latin America (Pratt, 2003; Kartikeyan et al., 2007). This geographical distribution of transmission of HIV can be due to sexual practices in these locations which are influenced by their culture and beliefs. According to Pratt (2003) sexual transmission of HIV is influenced by factors such as;

1. The disease stage of HIV-infected sexual partner and viral load.  
During the early stages of infection, there is a high level of virus in the blood. Anyone with a high viral load can easily transmit the virus during sexual contact than a person with a low viral load.

2. The presence of other sexually transmitted infections such as syphilis, genital herpes and gonorrhoea in a person increases the chances of becoming infected with HIV when sexually exposed to the virus.
3. The frequency of changing sexual partners.
4. Biological factors such as the lack of critical host cell receptor (CCR5) that HIV uses to dock onto and infect cell makes some individuals resistant to becoming infected with HIV-1 when sexually exposed. About 20% of the people carry this defective gene among the white population which gives them some level of protection from becoming sexually infected with HIV-1. The use of oral contraceptive among women and cervical ectopy increase the biological risk of being infected with the virus.
5. Uncircumcised men are most likely to be infected with HIV during sexual intercourse with an infected person than circumcised men.
6. Viral variants and host infectiousness.

All these factors contribute to the high transmission of HIV through sexual intercourse with an infected person. Drug users may engage in risky sexual behaviour which increases their exposure of being infected with HIV. Mother-to-infant transmission of HIV which is also known as perinatal or vertical transmission has accounted for millions of children all over the world being infected with HIV since 1982 (CDC as cited in Pratt, 2003). Iatrogenic transmission also accounts for the transmission of HIV in persons especially those working within the healthcare setting. It refers to the creation of additional problems or complications resulting from medical or nursing interventions, treatments or care (Pratt, 2003; Volberding et al., 2008). Factors

such as blood transfusion from an HIV infected person, donation of organs (kidney, corneas, hearts, etc) and tissues (semen used for artificial insemination), using HIV-contaminated equipment for invasive surgical procedures and HIV-infected healthcare workers all pose high risk factors to transmission of HIV in a healthcare setting. Despite the factors enumerated above, Kartikeyan et al. 2007, in a study found some social and environmental factors which have also led to the spread of the HIV/AIDS. Social factors such as social acceptability of promiscuity in some cultures, myth about sexual intercourse with a virgin to cure HIV, polygamous marriages and lack or inadequate family life education lead to spread of HIV/AIDS. Other factors such as having unsafe sex with commercial sex workers, promiscuous individuals, persons with sexually transmitted infection (STI), recipients of multiple blood transfusion, refugees, prisoners and homosexuals also accounted for the spread of HIV (Volberding, Sande, Lange & Greene, 2008).

### **Natural History of Progression of HIV Infection**

Natural history refers to the clinical evolution of HIV infection. When a person is exposed to HIV, his immune system breaks down and becomes susceptible to opportunistic infections, which eventually lead to death. When a person is infected with HIV, the range of incubation period is 1-14 years. Several phases occur between the moment HIV enters the human body system and the time of advanced immune deficiency. The natural history of the disease parallels the clinical progression of infection. Beginning with the individual's initial contact with the virus and culminating in the total breakdown of the immune system, the disease progresses from the first appearance of opportunistic infections to the last stage death. HIV enters the

human body, infects and replicates in a person's cells (CD4 and macrophages). At this stage, significant viral replication induces the immune system to produce antibodies specific to HIV. This sero-conversion period (time between acquisition of infection and production of antibodies) is usually 2-12 weeks but can or may continue for 6 months. This period is also known as the "window period". At this stage, a person is infectious but may not test positive on common HIV antibody test kits such as "Oraquick". At the time of infection, only a small number of people may exhibit acute signs of illness such as skin rash, headaches, fevers, night sweat, cough, etc. These signs are ordinarily ignored or passed off as general flu-like or malaria symptoms. Viral replication is kept in check after sufficient induction of the antibody response. The person infected remains asymptomatic and may remain so for a period ranging between few weeks to 10 years or even more. After this period, this varies from one individual to another, viral reproduction restarts and increases. Other infections may play a role in viral replication. Viral replication leads to destruction of CD4+T cells and progressive immunodeficiency. As immune depression advances, the person becomes susceptible to opportunistic infections (OIs). The clinical syndrome at this stage depends on the level of immune depression and on previous or present exposure to ARVs. AIDS is diagnosed when an infected individual presents syndromes characteristics of severe immune depression. However, it is important to note that, advances in treatment have modified the natural history and antiretroviral slow progression from HIV to AIDS. Prevention and better management of OIs have a great positive impact on HIV progression (NACP, 2010).

The virus progression is in three different patterns namely typical progression, rapid progressors and long-term non-progressors. Majority of HIV positive persons (50% – 70%) are classified under typical progressors because the disease may progress slowly over a period of 8 -10 years. Rapid progressors constitute about 5% - 10% in HIV infections where the disease may progress in 2 – 3 years. The final stage of disease progression takes a long time for the infection to progress to a disease stage and about 5% of HIV infections are in this stage (Kartikeyan et al., 2007).

HIV progresses gradually to AIDS in four stages under the typical progressors. In the first stage (stage 1), there are little signs illness in the infected person. The infected person is highly infectious and may be ignorant of his or her status because of the lack of apparent signs of illness for about 10 years. The second stage (stage 2) of the infection progression can last for about 3 -5 years with little sign of clinical problems and diseases. As the immune system is suppressed, the HIV infected person becomes susceptible to infections. The duration of this stage is about 3-5 years with clinical problems such as chronic diarrhoea, loss of body weight, and pyrexia.

Other opportunistic infections may also attack the person and it may be necessary to hospitalize such persons in order to provide effective follow-up visits. The final stage of the infection progression (stage 4) presents deteriorating health conditions. At this stage, there is a great deal of immune suppression which makes the HIV infected individual a victim of opportunistic infections. At the final stage of the infection progression, AIDS is said to be present and this is the terminal stage with clinical symptoms of the disease. The infection progression is high in developing countries than in developed



countries due to the presence of quality and advanced healthcare delivery systems (Kartikeyan et al., 2007). Antiretroviral Therapy (ART) has proven to be effective in delaying the progression of the virus and the onset of diseases. Most PLWHA in developed countries progress very slowly to the disease stage compared to PLWHA in developing countries such as Ghana. This may probably be due to better health care services and medical technological advancement.

### **Opportunistic Infections**

Pratt (2003) and Kartikeyan et al., (2007) reported that HIV/AIDS infected persons become prone to several opportunistic infections as a result of the weakening immune system. These infections are caused by bacteria, virus, fungi and protozoa making the HIV-infected person to acquire herpes zoster (shingles), pneumonia, candidiasis, molluscum contagiosum (skin infection), abnormalities in Cell-Mediated Immunity and abnormalities in Humoral Immunity. Also, neurological disorders such as AIDS dementia complex, vascular myelopathy and peripheral neuropathy, seizures, transient neurological deficits and aseptic meningitis are associated with HIV infection.

### **Course of HIV/AIDS**

Despite recent progress in the treatment of HIV infection, great variability in the course of this disease still exists, including the length of time before an AIDS diagnosis and mortality. If not treated, approximately 90% of individuals with HIV will progress to AIDS after 10-15 years (Buchbinder, Katz, Hessel, O'Malley, & Holmberg, 1994). Rapid progressors (10% of persons living with HIV) develop AIDS within 2 to 3 years following HIV infection, whereas long-term non-progressors (about 5%) remain

asymptomatic even after 12 or more years (Kremer & Ironson, 2007). For people who are not treated with antiretroviral therapy, the median time from AIDS diagnosis to death is estimated at 10 months with a range from 3 to 51 months (Morgan et al., 2002). For those treated with antiretroviral therapy, the average survival time is estimated to be more than 5 years even after the diagnosis of AIDS (Schneider et al., 2005). HIV infection is known to go through the following four stages: a) primary infection, b) asymptomatic disease, c) early symptomatic disease, and d) AIDS.

### **Primary Infection**

The first stage of infection is similar to a bad case of flu and can last for 2 to 4 weeks (Guss, 1994). Once infected, an initial burst of viremia occurs with a subsequent drop in CD4+ cell counts (Piatak et al., 1993). Viral-like symptoms of fatigue, rash, fevers, night sweats, and weight loss (known as constitutional symptoms; Guss, 1994) can be experienced by the infected person. As the immune system fights and repels the virus, however, these symptoms disappear and CD4+ cells rebound, but the virus settles in the lymph nodes. Because HIV is highly concentrated in blood, tissue, and semen, the person can be very contagious during this period and can transmit the virus as early as 24 hours after initial infection (Daar et al., 2001). Once the infection becomes amenable, the infected individual typically feels fine for years until the CD4+ cell count drops to less than 500. Many people do not feel the need to seek treatment once the above acute symptoms disappear and may not be aware of the infection unless a laboratory test is conducted (Koup, 2004).

### **Asymptomatic stage**

During the second stage of disease progression, virus replication occurs internally and few symptoms are noted. The amount of HIV during this stage can be determined only by specific laboratory tests to measure viral load and CD4+ cell count. The average length of the asymptomatic disease stage is 10 years with the range from 2 weeks to 20 years. However, during this typically lengthy latency period, HIV inflicts most of the damage to the body by continuing to reproduce itself 10 billion times a day, every day (Burton, Keele, Estes, Thacker, & Gartner, 2002). The most common symptom during this stage is swollen lymph nodes without pain (Guss, 1994) which tends to be perceived as benign to many people.

### **Early symptomatic stage**

During the next stage of disease progression, originally called AIDS Related Complex (ARC) in the early phase of HIV/AIDS discovery, patients may again experience constitutional symptoms such as night sweats, weight loss, diarrhoea, wasting syndrome, severe fatigue lasting several weeks, and prolonged fevers (Guss, 1994). Symptomatic HIV infection is caused mainly by opportunistic infections or cancers that the immune system would normally prevent without HIV. Every body system can become vulnerable to symptomatic HIV infection, thus this stage is frequently characterized by multi-system disease (Holmes, Losina, Walensky, Yazdanpanah & Freedberg, 2003). Despite that the specific infection or cancer can be treated, the underlying action of HIV continues to weaken the immune system.

## **AIDS**

The last and most serious stage is characterized by weakening of the immune system to the degree that the body becomes defenceless against infections. Opportunistic infections and AIDS-defining conditions commonly occur when CD4 cell counts drop below 200 (Holmes et al., 2003). The most common life-threatening opportunistic infection for people with AIDS during this stage is a fungus affecting the respiratory system which is evident by a dry cough, fever, night sweats, and increasing shortness of breath (Guss, 1994). Other problematic opportunistic infections include neurological deficits or seizures, severe headache, diarrhoea and abdominal pain, tuberculosis, and cancer. Also observed are psychiatric symptoms of depression, hallucinations, delusions, and paranoia (Wood & Dietrich, 1990).

Based on the disease progression processes summarized above, the Centres for Disease Control and Prevention (CDC) classified HIV as categories A, B, and C. Category A refers to HIV infection without symptoms. Category B is to classify symptomatic conditions attributable to HIV infection that do not meet clinical category C definitions. Category C represents clinical conditions attributable to HIV infection or CD4 count less than 200, which is equivalent to a diagnosis of AIDS. Once a patient has reached category C, the patient remains in that category even if his or her clinical condition improves.

## **Risk Factors**

HIV is transmitted through infected human body fluids including blood, semen, vaginal secretions, and breast milk (NACP, 2010). Therefore, activities involving the exchange of bodily fluids can be the modes of HIV transmission such as unprotected sexual activity, intravenous drug use, blood

transfusions and organ transplants (prior to 1985). Needle sharing, trading sex for money or drugs, and having multiple sex partners are known to increase the risk for HIV transmission. A strong correlation has been reported between addiction and the risk of sexual transmission of HIV (Cheever, 2001). Non-injection drug use (e.g., crack cocaine) can increase the chance of the transmission of HIV by inducing risky sexual behaviours. In fact, a study involving 2,200 young adults in three inner cities reported that crack smokers were three times more likely to be infected with HIV than non-smokers.

### **Treatment**

Since the 1996 introduction of the highly active antiretroviral therapy (HAART) designed to suppress the HIV, the prognosis of the disease has dramatically improved evidenced by longer life expectancy, reduction of disease progression, and fewer complications (Carpenter et al., 2000). Although not a cure for HIV infection, it can control viral replication for decades and reconstitute the immune system. For the individuals who take antiretroviral therapy, the mean age at death is estimated to be above 60 years, with 41% dying of illness not directly associated with HIV (Braithwaite et al., 2005).

According to antiviral drug treatment guidelines (Panel on Antiretroviral Guidelines for Adults and Adolescents, 2011), Highly Active Anti-Retroviral Therapy (HAART) should be initiated in all patients with a history of an AIDS-defining illness or with a CD4 count under 350. HAART is also recommended for patients with CD4 counts between 350 and 500. HAART for asymptomatic HIV infected persons is recommended based on many factors including the individual's readiness to start drug treatment,

likelihood of adherence to the treatment regimen, and the risks and benefits of antiretroviral therapy for that person in addition to CD4+ cell counts and viral load. Antiretroviral drug treatment plans, however, are very complicated, including three or more daily doses of several medications (some with dietary restrictions). Nausea, headaches, diarrhoea, joint pain, neuropathy (numbness in limbs), bad dreams and large amounts of fat deposits are common unpleasant side effects of antiretroviral medications.

### **HIV in Sub-Saharan Africa**

Sub-Saharan Africa has been considered as the hub of the epidemic as it remains the most badly affected region in the world. In 2014, it was reported that 5,600 people were infected with HIV daily with 66% (3, 696) of the newly infected people living in Sub-Saharan Africa (UNAIDS, 2015). WHO (2016) reported that most people infected with HIV globally are in Sub-Saharan Africa with an estimated number of 25.6 million (23.1 million – 28.5 million) people living with HIV representing about 69.75% of HIV infected people globally. Out of this number of infected persons, adults and children were 1.4 million (1.2 million – 1.5 million) and 790,000 (670, 000- 990, 000) adults and children died from HIV-related death in 2014 (UNAIDS, 2015). The disease continues to be a threat to many African countries such as South Africa, Swaziland, Botswana, Niger, Kenya, Malawi, Rwanda, Uganda Senegal, Zambia, Ivory Coast, Nigeria and Ghana. The main mode of transmission of HIV in this region is through heterosexual transmission. This transmission is enabled by elements such as poverty, migration, wars, and cultural practices (Avert, 2017; Kartikeyan et al., 2007).

Several measures have been put in place to help reduce the spread of HIV in Sub-Saharan Africa. Measures adopted include the distribution and promotion of condoms use, substantial efforts in reducing mother-to-child transmission, encouraging voluntarily male circumcision and accessibility to ART. Despite these efforts to reduce the transmission of the virus, economic barriers (lack of funds to provide health support), social and cultural barriers (stigmatization and discrimination), and legal obstructions has affected the effective prevention of HIV in the region (Avert, 2017). It is an undeniable fact that, despite improvement in ART and HIV/AIDS education, the disease is still a threat to most Sub-Saharan African Countries due to factors already exposed. There is the need for an aggressive biopsychosocial / spiritual approach towards prevention, education and treatment of HIV/AIDS in the region.

#### **The case of HIV/AIDS Situation in Ghana**

In Ghana, HIV/AIDS was first identified in 1986 with 42 cases (National HIV and AIDS, STI Policy, 2013). The major mode of HIV transmission in Ghana is by heterosexual contact and mother-to-child transmission (Anarfi & Awusabo-Asare, 1993; National AIDS/STI Control Programme, 2010). These are also the major means of HIV transmission in most African countries due to cultural restrictions on homosexuality and lack of technology to prevent mother-to-infant transmission. HIV has spread slowly in Ghana despite the wide spread of the pandemic in other African countries.

The Ghana Demographic and Health Survey report (GDHS, 2014) asserts that HIV awareness is almost universal. Majority of Ghanaian adults have heard about HIV, the mode of transmission and effective practices

towards its prevention. However, comprehensive knowledge is very low, even among the educated. Despite the wide awareness of HIV, there is still the need to extend the education to people living in rural communities and the youth since the GDHS revealed that these populations are less knowledgeable about HIV as compared to persons living in urban cities and adults. Over the years, the prevalence of HIV in Ghana has been relatively low compared to other African countries. In 2010, the prevalence of HIV in Ghana was 1.5%, and then declined to 1.3% in 2011, 2012 and 2013. In 2014, the prevalence rate of HIV in Ghana was 1.5% (1.1% - 2.0%) infecting 250,000 (190,000 – 330,000) individuals and claimed the lives of 9,200 (7,000 – 13,000) people and 120,000 (85,000 – 250,000) children became orphans due to HIV-related deaths (UNAIDS, 2015). According to the UNAIDS (2016), the current prevalence of HIV/AIDS in Ghana is 1.6%, with 270,000 (230,000 – 330,000) people living with HIV/AIDS in 2015. The report further shows that adults aged 15 and above living with HIV represent 260,000 (210,000 – 300,000), women aged 15 and above living with HIV represents 150,000 (130,000 – 190,000), children from zero to 14 years living with HIV are 19,000 (15,000 – 22,000) and the number of HIV accounted death in 2015 were 13,000 (10,000 – 160,000).

### **National Response to HIV/AIDS Menace**

To address the effects of HIV and AIDS in the population especially among PLWHA, the country has developed several strategic plans, guidelines, protocols and algorithms to reduce the disease burden and provide therapeutic reliefs. Ghana has since the inception of the epidemic, developed and implemented a series of policies such as the Short Term Plan (STP) for the



prevention and control of HIV and AIDS in 1987, and two Medium Term Plans (MTP); 1989 to 1993 and 1996 to 2000 respectively. These strategies have guided service providers to manage PLWHA since the Highly Antiretroviral Therapy(HAART) was started in Ghana in May 2003 (National AIDS/STI Control Programme, 2010; HIV Sentinel Survey, 2014).The Ghana AIDS Commission (GAC) was established in 2000 to provide national leadership and coordination for the Multi-Sectoral National AIDS Response. The National HIV and AIDS Strategic Plan 2011-2015(NSP) which has guided the national response had ten thematic areas including the Prevention of New Infections, HIV treatment, Care and Support and Strategic Information generation. The Ministry of Health (MOH) is the lead establishment for the technical component of the response and develops yearly Programme of Work (POW) for various agencies based on the Health Sector Medium Term Development Strategic Plan (HSMTDSP).

The Ministry of Health/ Ghana Health Service through the National AIDS Control Programme (NACP) puts into action the health sector response as a component of the POW and HSMTDSP. NACP's goal is to reduce the incidence of HIV among the general population as well as reversing the rising trend of HIV and AIDS. Ghana has been recommended globally for successfully using a multisectoral response to HIV and achieving a 76% reduction in new HIV infection among children due to effective approach to reducing mother-to-child transmission ("HIV prevalence rate stabilized in Ghana", 2014). As part of the government's intervention and support towards reducing stigmatization, discrimination and attending to the needs of PLWHA, the National AIDS Control Programme (NACP) and the Ghana AIDS

Commission (GAC) were set up to address these needs (Ghana AIDS Commission, 2015; Amoah, 2005). GAC was set up by an Act of Parliament and it has the responsibility towards mitigating the negative effects of HIV/AIDS in PLWHA in the country.

### **Effect of HIV/AIDS**

There is stigmatization by the society and discrimination against PLWHA (UNAIDS, 2006). HIV negatively impacts health, education, life expectancy and the economy. HIV/AIDS has a social and psychological catastrophic consequence on the infected and affected. That is to say, HIV transmission and coping cannot be eliminated from the cultural, social, demographic, political and economic structures of a country. All these challenges may have some negative impacts on their health. They may be affected psychologically. People with HIV may experience psychological distress (WHO, 2008). PLWHA are likely to experience some form of mental illness arising from the negative societal attitudes such as discrimination, stigmatisation and marginalization (WHO, 2008). PLWHA have the tendency to develop psychological problems such as depression, anxiety and even suicidal tendencies (WHO, 2008). Mental health issues such as anxiety and depression are common in PLWHA. The physical impacts may arise when the individual refuses to adhere to medications probably caused by societal negative attitudes towards him or her.

Having been diagnosed with HIV/AIDS is likely to affect the quality of life of the person, in event where the person fails to take his medication and the adoption of other healthy behaviours. The areas of quality of life that are likely to be affected include; physical functioning, physical roles limitations,

emotional role limitation, social functioning, bodily pain, mental health, vitality and general health. To avert such a situation, a patient has to adhere to the medication prescribed as it has the potential to enhance quality health. There is an evidence of the relationship between quality of life and social support (Xiaoyan & Sato 2011). Social support encourages medication adherence and adherence to medication enhances quality of life.

The disease condition has some effects on the personality of individuals, the family and the society (UNAIDS, 2006). The disease is highly stigmatized and discriminated, consequently people living with HIV/AIDS are alienated in the society (UNAIDS, 2006). This has the tendency to affect the quality of life of such people such as mental health, vitality, social functioning, physical functioning and physical role functioning. Any person with any form of physical illness needs social support. The need for social support for people living with HIV/AIDS even becomes greater taking into cognisance the stigma and discrimination they suffer in their environment. The environment within which this study was situated appeared to be a communal society therefore the assumption is that social support would be readily available. However, such an assumption needs to be supported by evidence. The responses from the environment may have a positive impact on their adherence to medication and other health practices, with rippling effects on quality of life.

### **Quality of Life**

Quality of life (QoL) constitutes a field of progressive academic interest, given its potential. The development of the concept and its incorporation into the healthcare sector is basically due to: epidemiological

studies on happiness and well-being; the search for new social indicators of health; the lack of objective measures of the results of biotechnologies; the positive psychology movement; valorization of the satisfaction of the client; and the need for humanization in health programming and care. The QoL construct has also contributed to the comprehension of the factors involved in the existence of people infected by the Human Immunodeficiency Virus (HIV) and the disease that it causes, Acquired Immunodeficiency Syndrome (AIDS). This is due to the fact that, despite the increase in lifespan after HIV infection, due to the development of high activity antiretroviral therapy (HAART), many clinical and, in particular, psychosocial issues are still obstacles for the improvement of the QoL. Thus, people living with HIV/AIDS (PLWHA) are still faced with significant difficulties such as: stigma and prejudice; access to health care; employment; relationships with healthcare professionals; experience of sexuality; increased social support; family relationships; and bodily alterations and perception of self-image. The World Health Organization (WHO), in turn, has invested in the approach to QoL, having constructed the Quality of Life Assessment Group (The WHOQoL Group, 1995) for this. This initiative culminated in the creation of a generic QoL assessment instrument called the WHOQoL-100, developed in a multicentre manner with transcultural potential. Considering the particularities of living with AIDS, the WHOQoL-HIV was created, based on the above mentioned instrument (WHOQOL Group, 1995).

Considering the complexity in the conceptualization of QoL, the WHO defines it as “an individual’s perception of their position in life in the context of culture and value systems in which they live and in relation to their goals,

expectations, standards and concerns". It involves a comprehensive assessment of the perception of the subjects regarding a set of domains, in the case of the WHOQoL-HIV these being: physical; psychological; level of independence; social relationships; environment; and spirituality, religion and personal beliefs (SRPB) (11).

Quality of life is an individual's perception of the position in life in the context of the culture and value systems in which they live in relation to their goals, expectations, values and concerns, incorporating physical health, psychological state, level of independence, social relations, personal beliefs and their relationship to salient features of the environment (WHO & QOLG, 1995). There are other views that situate quality of life in a subjective, objective and existential and integrative context (Ventegodt, Merrick, Andersen, 2003).

According to Ventegodt et al. (2003), subjective quality of life manifests at a personal level, where the person examines how good his or her life is. It is a self-introspection of how the person feels and how the person sees his environment. The satisfaction with life and being happy are a dimension of quality of life that shows at the individual level. On the other hand, objective view of quality of life suggests that the view people have about the person's life is what matters in the understanding of quality of life. That is, quality of life is measured in the eyes of other people. The individual is required to live up to an established order in the society (values and norms). One's ability to adapt to these values and norms in the society is what is used to evaluate the quality of life of the person. An example; an individual can be said to have a good quality of life based on the number of houses, cars,

income, and many others one has been able to accumulate, probably over a period of time.

The existential approach to quality of life posits that, human beings are biological and spiritual in nature and human beings can co-exist with this nature. The existence of human being is to satisfy the biological need and to live with the spiritual component of the person. Therefore, quality of life is the level of satisfaction of the biological need and the ability to live in tandem with the spiritual and religious ideals established by the nature of the being. Example, human beings need food for growth and for survival as well as living with the notion that inherent is a spirit that gives life, therefore, there is the need to protect life.

Quality of life from an integrative approach appeared to amalgamate the various views of quality of life. It is a spectrum of perspectives of quality of life. It is a spectrum of subjective-existential- objective view of quality of life. An integrative approach holds the view that, quality of life should be seen holistically instead of a piecemeal approach. The integrative approach appeared to be comprehensive and addresses quality of life interventions extensively. In the context of the study, quality of life is being measured from a subjective view, because PLWHA may have different experiences at a personal level with the social support they receive, which may affect their quality of life. The domains of quality of life that will be considered as a composite are general health, mental health, vitality, physical functioning, physical roles limitations, social functioning and bodily pain. These variables of PLWHA being examined collectively are likely to be influenced by the

perceived social support the person receives in the environment as some studies suggest (eg. Xiaoyan & Sato, 2011).

HIV/AIDS impacts heavily on the infected individual and the society at large there is therefore urgency in evaluating the quality of life of HIV-infected individuals. A study on the quality of life of people living with HIV/AIDS in São Paulo, Brazil reported that despite differences in sex, skin colour, income, and mental and immunological status, people living with HIV/AIDS have better (physical and psychological) quality of life than other patients but lower quality in social relationships domain. A similar study in South India also showed that patients had the worst QOL in the social domain, indicating that the patients' social contacts and sexual activity were affected markedly to a great extent. Fatiregun et al, in their own study of PLWHA in Kogi State, Nigeria, suggested that stigma and discrimination, as well as poor living conditions, in the PLWHA physical environment was the cause of lower QOL in the environment and social relationships domain. Several authors have investigated the determinants of quality of life of PLWHA. Nojomi et al identified gender, mental status, CD4 cell count and stage of the disease to be important factors associated with the QOL of patients.

Another study concluded that education, income, occupation, family support and clinical categories were significantly linked to patients QOL. In a sample of HAART naïve asymptomatic HIV infected subjects, high viral loads and low CD4 count were significantly associated with poorer scores in the psychological and social domain.

## Social Support

Social support has been studied across multiple disciplines, which contributes to a lack of consensus on its definition. Generally, social support is described as a multifactor construct that includes the structures of an individual's social relationships and the functions the relationships provide (Uchino, 2004). The structural component of social support is often defined by social integration, social isolation, or social network characteristics (Turner & Turner, 1999). Functional social support includes informational, instrumental, and emotional support, as well as social conflict (Cohen, 2004).

Social support is a multi-faceted concept that has been difficult to conceptualize, define and measure. For the purpose of this research however, social support shall be defined as “the interpersonal relations that offer information, emotional relief, material and self-reliance” (Revenson & Gibofsky, 1995). Bernard and Krupat (1994) explain it better when they stated, “In the presence of support, you feel loved, valued, and cared for, and know that you have the resources available to you above and beyond your own. Friends, relatives, lovers, roommates, co-workers and spouses can all serve as sources of social support”. Social support ranges from care and support offered by caregivers, family members, friends, neighbours, teachers, health workers, and community members on a daily basis but also extends to care and support offered by specialized psychological and social services” (Action for the Rights of Children [ARC] resource pack, 2009). The domain of perceived social support comprises family, significant others and friends. These are categories of people who appear to be closer to any person, therefore may have a direct influence on the person.



The roots of the concept of social support are found in nineteenth century sociologists such as Durkheim (2005), who established the link between diminishing social ties and an increase in suicide. As a concept, it has evolved over time starting with the term “social ties” as used by Durkheim (2005). Caplan (1964) describes a social system as others who;

1. help people to mobilize their psychological resources in order to deal with emotional problems (linking, loving, and empathy);
2. information (about the environment),
3. instrumental aid (provide an individual with money, material, skills, and advice in order to help them to deal with particularly stressful situations that they are exposed to. Social support has come to possess different dimensions and is expressed in different forms and different ways. The source of social support can come in the form of emotional support from family, friends, and significant others. It can also emanate from social interactions in the community including professionals and even from interaction with the environment.

### **Categorization of Social Support**

Social support serves many different functions (House, 1981; Wills, 1984).

These are:

**Emotional Support** – This is associated with sharing life experiences. It involves the provision of empathy, love, trust and caring. In this vein, having someone to share problems with allows people to vent their emotions and allows others to offer reassurance and nurturance. People feel better knowing that there are others around them, who will cheer them up when ill or back them up when threatened. Enquiring about the health and welfare of an HIV

positive person, offering positive remarks such as “how is my dear doing this morning”, etc. are some of the ways of making an HIV positive client or person feel loved and cared for. Listening to the concerns of the person and offering words of encouragement, hugging, or even eating from the same plate with him or her are all classic illustrations of this support.

**Informational support** - This involves the provision of advice, suggestions, and information that a person can use to address problems. People can learn from others and have a wider repertoire of coping than if they faced life alone. Bringing HIV/AIDS to bear, clients who are HIV/AIDS positive and have been on treatment for a longer time period could share their experiences, as well as some of the side effects of the medications with newly diagnosed people. Information gathered on the condition in relation to what to do and what to avoid from magazines, books, or other resource materials could be shared with a newly diagnosed person by spouse, friends, significant others (e.g. those who have been on ART for a longer time), and relatives. In the view of the researcher, activities such as turning on a radio or television, and drawing the attention of PLWHA to listen to discussions on the condition, will also be a way of providing this support. Due to its form, informational support is also sometimes called Guidance Support.

**Instrumental Support** – This support is also sometimes referred to as tangible support. This kind of support has to do with the provision of tangible aid and services, which directly assist a person in need. It is provided by relatives, close friends, colleagues and neighbours. For instance, family and friends can lend someone money when he or she is in need, help tutor that person if he or she is having academic challenges, or get the person to the

hospital if sick or injured. In the case of an HIV positive person, family and friends can assist the person with household chores (most especially if the person is very weak and can hardly do anything on his or her own); they could also transport and/or accompany him/her to the clinic or hospital for care or drug refills. They could also provide her regularly with money to cater for her medical expenses. Assistance associated with such activities is primarily provided by the family, friends and significant others, although sometimes, others may help.

**Appraisal Support** – It involves the provision of information that is useful for self-evaluation purposes: constructive feedback, affirmation and social comparison.

**Functional Social Support:** The functional component of social support describes the functions provided by social relationships (Uchino, 2004). The positive functions of social support include informational, instrumental and emotional support. Informational support is information or advice provided to an individual to help them cope with a stressful situation. Support that is tangible, such as financial aid or assistance with daily tasks, is considered instrumental support. Emotional support includes expressions of empathy, caring, and reassurance for a person who is encountering a difficult or stressful situation (Cohen, 2004). Functional social support can be assessed by measuring perceived social support, the perception that support is available when needed, or by measuring received social support, the actual support an individual receives (Uchino, 2004).

The stress buffering model is often used to describe relationships between positive social support functions and health outcomes. The model

posits that social support acts as a buffer to the deleterious effects of stress on mental and physical health. The model best describes the relationship between perceived rather than received social support and health outcomes (Cohen & Wills, 1985). In prior research, the perception of social support availability has been more strongly and consistently related to health outcomes than the actual support received (Cohen & Wills, 1985). Perceived social support may thwart the negative effects of stress on health by either preventing a situation from being appraised as stressful or reducing negative emotional, physiological, and behavioural responses to the situation (Cohen et al., 2000).

Social relationships may also function in ways that negatively influence health outcomes. Relationships may increase levels of interpersonal conflict, which is associated with negative cognitive, affective, and biological responses (Cohen, 2004; Cohen et al., 1991). Social conflict may also be related to poorer health outcomes because individuals may participate in negative health behaviours in order to cope with the stress associated with conflict (Cohen, 2004).

### **Structural Social Support**

A structural measure of social support, social integration, describes the way an individual is situated or integrated into a social network (B.N. Uchino, 2004). For example, the number of different social roles a person occupies has been used to indicate degree of social integration in prior research (Brissette & Seeman, 2000). Social integration has been associated with lower mortality rates, higher heart attack survival rates, and lower susceptibility to infections (Berkman & Syme, 1979; Cohen, Doyle, Skoner, Rabin & Gwaltney, 1997; Farmer et al., 1997; House, Landis & Umberson, 1988). The direct effect

model is typically used to describe associations between structural measures of social support and health outcomes. The model suggests that membership in a social network has direct positive effects on health outcomes irrespective of stress level (Cohen et al., 2000). This may be due to network members conforming to positive normative health behaviours, having access to a wider variety of information that may help improve health, or through positive psychological responses resulting from network participation (Cohen, 2004; Cohen et al., 2000; Cohen & Wills, 1985; Stroebe & Stroebe, 1996; Uchino, 2004). Positive psychological responses may result in a lower likelihood of psychological despair, reductions in neuroendocrine responses, and improvements in immune functioning (Cohen, 1988; Thoits, 1985; Uchino et al., 1996).

An alternative explanation for the relationship between the structural component of social support and health is that disease may be associated with social isolation instead of the degree of social integration (Cohen, 2004; Cohen et al., 2000). Social isolation may cause stress, which can result in poorer affect, feelings of alienation, and decreased feelings of control and self-esteem. These responses may lead to negative psychological states that yield unhealthy behaviours, increased neuroendocrine responses, and suppressed immune functioning (Brissette et al., 2000; Cohen, 2004).

### **Distinction between Social Support and Support Group**

Having identified the main groups by which social support can be categorized; there is yet the need to distinguish between social support and a support group. Social Support is a network of family, friends, colleagues, and other acquaintances one turns to whether in times of crisis or simply for fun

and entertainment. Support Groups, on the other hand, are generally more structured meetings or self-help groups often run by mental health professionals

### **Importance of Social Support**

Social support has a number of benefits which include the following:

In the first place, family ties, friendships, and involvement in social activities can offer a psychological buffer against stress, anxiety, and depression.

Secondly, it can also help a person cope better with health problems. Simply talking to a friend over a cup of coffee, visiting a relative, or attending a church is good for a person's overall health. The above is achieved through the following ways:

- A person's friends and social contacts may encourage him or her to change unhealthy lifestyle habits such as excessive alcohol consumption, smoking, etc.
- Friends and social contacts may urge a person to visit a doctor when the person feels depressed, which can prevent problems from escalating.
- These connections can help a person with mental illness "weather troubled times". No wonder, clinicians use the biopsychosocial(s) model when diagnosing and treating psychological disorders.

Further, social support can increase one's sense of belonging, purpose and self-worth, thereby promoting positive mental health. It can again help a person get through a divorce, a job loss, the death of a loved one or the addition of a child to a family.

Studies on social support have shown that having one or two close and supportive friends is at least as valuable to emotional health, as having a large group of friendly acquaintances, or more “shallow” friendships. It has however been recommended that, having social support from several supportive sources is the best. Reasons assigned to having at least a few different friends to fall back on include the following. Having only one person to fall on through difficult times may end up wearing up that person. Also, the person needing help might feel unsupported if the person to offer it is unavailable.

Again, it enables a person to draw different benefits from different types of people. For example, having a knowledgeable friend to gain information and insights from, an empathic friend to be a good listener during tough times, and an outgoing friend to party with, provides a better blend of social support than any one of these people alone could give.

Different friends can bring out different qualities in one another that benefit all. For example, an outgoing friend could bring a shy empathic friend out of her shell, so that the two can attend a social function together. Studies show that a sense of belonging is extremely important for emotional health and well-being. Those who have social support but do not feel a sense of belonging are much more likely to suffer from depression, for example.

Social support has a wide impact. It can affect the manner in which people cope with stress, and it can be a key determinant in the development of psychological and physical illness. It can also affect the progression of illness and recovery from it, as well as the initiation and maintenance of behaviour change. A significant way of improving health is to increase one’s social

support, and insufficient social support can be considered a risk factor for morbidity and mortality (House, Landis & Umberson, 1988).

### **The Links between Support and Health**

Two general viewpoints have been offered on the way in which support works. The first, known as the Buffering Model, suggests that social support serves as source of protection (that is, a buffer) against harmful effects of stress (Cohen & McKay, 1984). According to this model, social support allows people to appraise a stressor as less threatening and allows them to cope with it better. The second model which is known as the Main Effects Model (Cohen & Syme, 1985), deals with the value of social support independent of stress. It asserts that support is a positive and useful resource, and it suggests that its benefits are great even when people are not exposed to stress.

Support is linked to health in so many ways. Social support gives people a better sense of control over events, and as we have seen, this can have beneficial health effects. Also, people who have social support may be less likely to engage in health-threatening behaviours. They may be less threatened by stress and therefore feel less need to smoke, or they may be encouraged by friends and family and helped to give up cigarettes. Recently, researchers have demonstrated that social support can reduce morbidity and mortality directly as a result of effects on the neuroendocrine, immunologic, and cardiovascular systems (Cohen, Kaplan & Manuck, 1991; Bernard & Krupat, 1994).



The domain of perceived social support comprises family, significant others and friends. These are categories of people who appear to be closer to any person, therefore may have a direct influence on the person.

The elements of the social support may include family, friends support and support from significant others. Literature on the effects of social support on quality of life of PLWHA appeared to be lacking, though there has been an effort to encourage society to offer support to PLWHA. Research findings on the effects of perceived social support on quality of life among PLWHA in Kumasi Metropolis are limited. Perceived social support domains are the family, friends and significant others. These domains play a significant role in the quality of life of PLWHA. Quality of life is manifested in the physical, psychological, social relationship and environment of the person. Therefore, knowing the effects of social support of PLWHA can help in addressing the quality of life of PLWHA in these areas.

Research work has shed some light on the relationship between social support health outcomes of PLWHA. A study conducted by Bisschop, Kriegsman, Beekman and Deeg (2004) in western society found that social support is associated with improved outcomes and improved survival in a disease such as HIV/AIDS. Such a society appeared to be an individualized society nevertheless there was some form of social support.

Research findings from Xiaoyan and Sato (2011) showed that there was a positive relationship between perceived social support and quality of life among HIV patients. The indication that is brought to the fore is that, at the stage where a person has not developed AIDS, there are likely challenges with quality of life and perceived social support is associated with quality of life in

a positive outcome. However, little is known about the effects of perceived social support on quality life of PLWHA. Similarly, a study by Yadav (2010), revealed a positive relationship between perceived social support and quality of life of PLWHA. However, the available research does not highlight the effects of perceived social support on quality of life of people living with HIV/AIDS.

With respect to demographic variables, younger patients are likely to have higher quality of life than older patients, according to Abrefa-Gyan and Okundaye (2016). Also, male patients are likely to have higher quality of life than female patients (Abrefa-Gyan & Okundaye, 2016). In addition, male patients are likely to have better quality of life than females (Nirmal, Divya, Dorairarj & Venkateswaran, 2008).

The effect of perceived social support on the quality of life of people living with HIV/AIDS is an area where the focus of attention has been less, particularly in Ghana. Ghana generally is a communal society, therefore could leverage on this state of affairs to support PLWHA within the context of social support. There appears to be no study with respect to what is under study. Kumasi Metropolis presents a setting where the outcome of the study could be deemed to be representative of the people in Ghana, as it has a fair representation of the people in Ghana. Besides, it is one of the Metropolises in the country with the highest prevalence of HIV/AIDS. It is the second populous region of the country and huge center for trading activities in the country, with many people converging.

Though social support is important in disease management, the environment where the support is coming from may be indicative of the likely

effects on the quality of life of the person who has the disease. This study is situated in a society where human interaction is communal, where the society is generally concerned about the welfare of everybody. Much emphasis is about the collective good of the general population as oppose to an individual. However, it is important to point out that, in the same environment, there are societal behaviours and attitudes that are likely to affect the wellbeing of people living with some chronic conditions such as HIV/AIDS. The effect of the perceived social support on the quality of life of PLWHA represent the need to examine the collective effects of family, friends and significant others on the quality of life of PLWHA in Kumasi Metropolis. This appeared to be in contrast to available studies that have focused on the just the relationship between social support and quality of life.

HIV/AIDS is a chronic disease, therefore a person living with HIV/AIDS has to live with it for the entire life span. Adherence to medication is important since non adherence could lead to the worsening of condition. Social support is a key factor in the adherence to medication, mental wellbeing and physical wellbeing with the rippling effect of enhancing the quality of life of people living with HIV/AIDS. People living with HIV/AIDS need social support because most of them suffer from discrimination and stigmatization (Bonuck, 1993). These negative societal attitudes (Bonuck, 1993) may have the tendency to lower their moral, derail self-confidence, self-esteem and sense of belongingness in the community.

Any person with any form of physical illness needs social support. The need for social support for people living with HIV/AIDS even becomes greater taking into cognisance the stigma and discrimination they suffer in

their environment. The environment within which this study was situated appeared to be a communal society therefore, the assumption is that social support would be readily available. However, such an assumption needs to be supported by evidence. The responses from the environment may have a positive impact on their adherence to medication and other health practices, with rippling effects on quality of life.

Perceived social support is what the person or individual thinks about the support he or she gets from his or her environment or society. The domain of perceived social support comprises family, significant others and friends. These are categories of people who appear to be closer to any person, therefore may have a direct influence on the person.

HIV/AIDS, though, a physical illness has the tendency to affect the quality of life of people living with it. Most often, PLWHA are likely to experience low or high quality of life depending on some factors. These factors may include provision of Anti-retroviral (ARVs) drugs, availability of health facilities to serve the needs of people living with it, government policies and social support from the society. The elements or domains of the social support may include family, friends support and support from significant others. Literature on the effects of social support on quality of life of PLWHA appeared to be lacking, though there has been an effort to encourage society to offer support PLWHA. These domains play a significant role in the quality of life of PLWHA. Quality of life is manifested in the physical, psychological, social relationship and environment of the person. Therefore, knowing the effects of social support of PLWHA can help in addressing the quality of life of PLWHA in these areas. Research work has shed some light on the

relationship between social support health outcomes of PLWHA. A study conducted by Bisschop, Kriegsman, Beekman and Deeg (2004) in western society found that social support is associated with improved outcomes and improved survival in a disease such as HIV/AIDS. Although such a society appeared to be an individualised one, nevertheless, there was some form of social support

World Health Organization [WHO] (2006) has outlined some basic principles for the treatment and social support for people living with HIV/AIDS who are drug dependent. PLWHA might have contracted the virus through drug addictive behaviours. The use of the same syringe among heroin addicts is one example through which the virus is contracted. Therefore, PLWHA need social support in this regard. As part of WHO principles, it is stated that drug dependent people living with HIV/AIDS should not be denied access to appropriate and high quality services. This service should provide full range of psychological, biological and social interventions, not excluding drug dependence treatment, HIV/AIDS treatment and primary health care.

Moreover, equal access to HIV testing and counselling, antiretroviral therapy, treatment adherence support is equally important. These were spelt out in order to promote the quality of life of PLWHA. For instance, Anti-retroviral treatment has been an effective therapy which has been shown to be successful in arresting HIV progression and enabling those infected to achieve a satisfactory quality of life (WHO, 2006). Accordingly, with such support, it is presumed that PLWHA will have improved quality of life if social support is effectively administered by families, communities, government, nongovernmental agencies and significant others.

An intriguing fact that brings the chapter on social support to a conclusion is that, a person does not necessarily have to actually lean on family and friends for support to reap the benefits of those connections. Just knowing that they are there for him or her can help them to avoid reactions to stressful situations.

### **Empirical Review**

This part of the review focuses on studies conducted by other researchers on social support and quality of life of people living with HIV/AIDS. The review was conducted on the research questions that were formulated to guide the study. Studies conducted on social support and quality of life in addition address the gender and other demographic variables that influence quality of life. Hence, a general empirical review was conducted so as to see the link between the various variables under study.

Research findings from Xiaoyan and Sato (2011) showed that there was a positive relationship between perceived social support and quality of life among HIV patients. The indication that is brought to the fore is that, at the stage where a person has not developed AIDS, there are likely challenges with quality of life and perceived social support is associated with quality of life in a positive outcome. However, little is known about the effects of perceived social support on quality life of PLWHA.

Similarly, a study by Yadav (2010) revealed a positive relationship between perceived social support and quality of life of PLWHA. However, the available research does not highlight the effects of perceived social support on quality of life of people living with HIV/AIDS. Though HIV/AIDS appeared to affect the younger population, the introduction of Anti Retroviral has made

it possible for PLWHA to live longer. This has led to a pool of aged PLWHA. Therefore, knowledge of age difference is likely to guide interventions. A meta-analysis work done by DiMatteo (2004), brought to the fore the role of social support in health outcomes, recuperation and the general maintenance of health. There seemed to be a body of knowledge that suggest the influence of social support on the health of patients in general. Social support may manifest as a moderating factor in a state of ill health. In stressful situations and emotional distress, social support may provide an opening of relief. Cohen (1988) has expressed the view that, the benefit of social support involves ameliorating stress affecting emotional state and altering behaviours.

Social support also influences the ability to adjust and live with illness as it presents as a resource for coping. According to Hegelson and Cohen and Taylor, Falke, Shoptaw and Lichtman (cited in DiMatteo, 2004), social support has the capacity to impact on an individual's ability to adapt and live with a disease. In an environment where stigmatization, discrimination and social isolation is present, PLWHA are likely to suffer some form of self-esteem. Research work by Shumaker and Hill (1991) and Wallston, Alagna and DeVellis (1983), indicated that social support from family and friends has the tendency to boost self-esteem, reducing depression and a means for providing assistance. The implication is that, there is direct positive impact of family and friends on the self-esteem of people who are ill. The physical, mental and social health of people is positively affected by social support. It contributes to emotional balance, serves as a source security and creates a sense of belongingness (Liu & Haung, 2010).

Social support manifests in two perspectives, the subjective and the objective perspectives. Objective support encompasses received support, whereas subjective support is perceived support (Liu & Haung, 2010). Perceived social support is seen as a better predictor of psychological standing than received social support (Barrera, 1986). Malekahmadi et al. (2011) assert that social support, an element of psychosocial factor, has been confirmed by several studies to have an impact on quality of life after undergoing any medical treatment.

Social support has been cited to be beneficial to adjustment and disease management (Göz, Karaoz, Goz, Ekiz, & Cetin, 2007). Also, increased perceived social support led to increased quality of life. A study by Ichikawa and Natpratan (2006), showed that social environment has an influence on quality of life among PLWHA. It may be safe to say that social support is subsumed under social environment because social support is derived from social environment or climate. Therefore, the social environment goes a long way to determine social support. A better social environment is likely to influence the social support one receives.

Social support could lead to medication adherence among PLWHA. Research work by Edwards (2006) indicated the role of social support in improving quality of life. The result of the study showed that social support can lead to medication adherence among women living with HIV/AIDS. A cross sectional design study by Yadav (2010) revealed that social support has a positive effect on some component of quality of life, such as environmental functioning. Generally, the study also indicated that there was a relationship between social support and quality of life.



Further studies by Barutcu and Mert (2013) indicated the relationship between social support and medication adherence among people living with HIV/AIDS. In the study, they examined perceived social support and quality of life. It came to light that, the higher the perceived social support, the higher the quality of life of patients with chronic illnesses. Research work by Lan et al. (2015) showed that people with lower social support are likely to have lower quality of life. This study was carried out among people living with HIV/AIDS.

In examining the effect of social support on quality of health, Costa, Sá, and Calheiros (2012), study showed that social support was a good predictor of health related quality of life among patient with multiple sclerosis. However, there is little support for the effects of social support on the quality of life of people living with HIV/AIDS.

The relationship between social support and other stressful environmental event has been explored. The study showed that those with higher social support are likely to have higher quality of life as compared to those with lower social support (Xiong, Chaojie & Ningxiu, 2010). Equal access to HIV testing and counselling, antiretroviral therapy, treatment adherence support, and others were emphasized. These were spelt out in order to promote the quality of life of PLWHA. For instance, Anti-retroviral treatment has been an effective therapy which has been shown to be successful in arresting HIV progression and enabling those infected to achieve a satisfactory quality of life (WHO, 2006).

Research findings from Xiaoyan and Sato (2011) showed that there was a positive relationship between perceived social support and quality of life

among HIV Patients. Similarly, a study by Yadav (2010), revealed a positive relationship between perceived social support and quality of life of PLWHA.

Many research works have been done concerning social support and quality of life as indicated. These studies reviewed, all appear to suggest that there is a relationship between social support and quality of life. However, contrary finding by Nazik et al (2013), indicated that there was no relationship between social support and quality of life among people living with HIV/AIDS. What might have accounted for these were small sample size and the use of the family subscale of perceived social support instead of the whole scale.

Though this study focused on PLWHA, irrespective of the source of infection, a study done by Sun, Wu, Qu, Lu and Wang (2013), among those whose source of infection was through sexual contact or activity only, found a positive relationship between quality of life and perceived social support. Aside social support having a positive impact on quality of life of PLWHA and other people with chronic illness, research has shown that social support has an effect on the quality of life on other human sufferings (Xiong, Chaojie & Ningxiu, 2010). According to Xiong et al. (2010), survival victims of an earth quake in a study reported a positive relationship between social support and quality of life.

The predictive value of social support in health related conditions have been explored. In a study by Costa, Sá and Calheiros (2012), it was revealed that social support predicted health related quality of health among people living with multiple sclerosis. Though HIV/AIDS affect both men and women, their experiences may differ. The social environment and gender stereotyping

are all variables that are likely to affect the quality of life of people with HIV/AIDS. Example, women infected with HIV/AIDS are sometimes seen as irresponsible and promiscuous, therefore, sometimes suffer stigmatization and isolation. In a patriarchy society where men dominate, such experience may not be experienced by them (men).

With respect to demographic variables, younger people are likely to have higher quality of life than older people, according to Abrefa-Gyan and Okundaye (2016). Also, males are likely to have higher quality of life than females (Abrefa-Gyan, Okundaye, 2016). In addition, male patients are likely to have better quality of life than females (Nirmal, Divya, Dorairarj & Venkateswaran, 2008). In examining gender differences between men and women with HIV/AIDS, Chandra, Satyanarayana, Satishchandra, Satish and Kumar (2009), disclosed in their study that men had better quality of life than women. However, on some aspect (religion and personal beliefs) quality of life among women were better than men, as the study suggests.

Another study by Vigneshwaran, Padmanabhareddy, Devanna and Alvarez-Uria (2013), confirmed in their research work that men's quality of life was better than that of women under antiretroviral drugs. In addition, male patients are likely to have better quality of life than females (Nirmal, Divya, Dorairarj & Venkateswaran, 2008). According to Perez et al. (2009), there is no gender difference in quality of life between men and women who are HIV/AIDS positive. Another study asserted that, in situation where there was gender difference, women are likely to report lower quality of life, as compared to men (BriongosFigueru, Luque, Martin, Sagrado & Bouza, 2011).

### **Conceptual Framework**

Studies have identified that there is a positive relationship between social support and quality of life of PLWHA. This relationship suggests that social support might have a positive influence on quality of life. Social support (independent variable) critically identified in literature comprised support from family, friends and significant others. Literature suggests that these supports when provided to PLWHA are likely to ensure that their general health improves. Quality of life (dependent variable) is composed of eight constructs or dimensions such as physical functioning, physical roles limitation, emotional roles limitations, social functioning, bodily pain, mental health, vitality (energy), and general health. These dimensions, together determine how a PLWHA enjoys quality life. This means that at any point that a particular dimension falls, quality of life will be negatively affected. The framework (see Figure 1), therefore, rests on the assumption that social support has a positive influence on the quality of life enjoyed by PLWHA. This means that when social support is increased, it would positively affect quality of life and when social support is decreased, quality of life will be affected negatively.

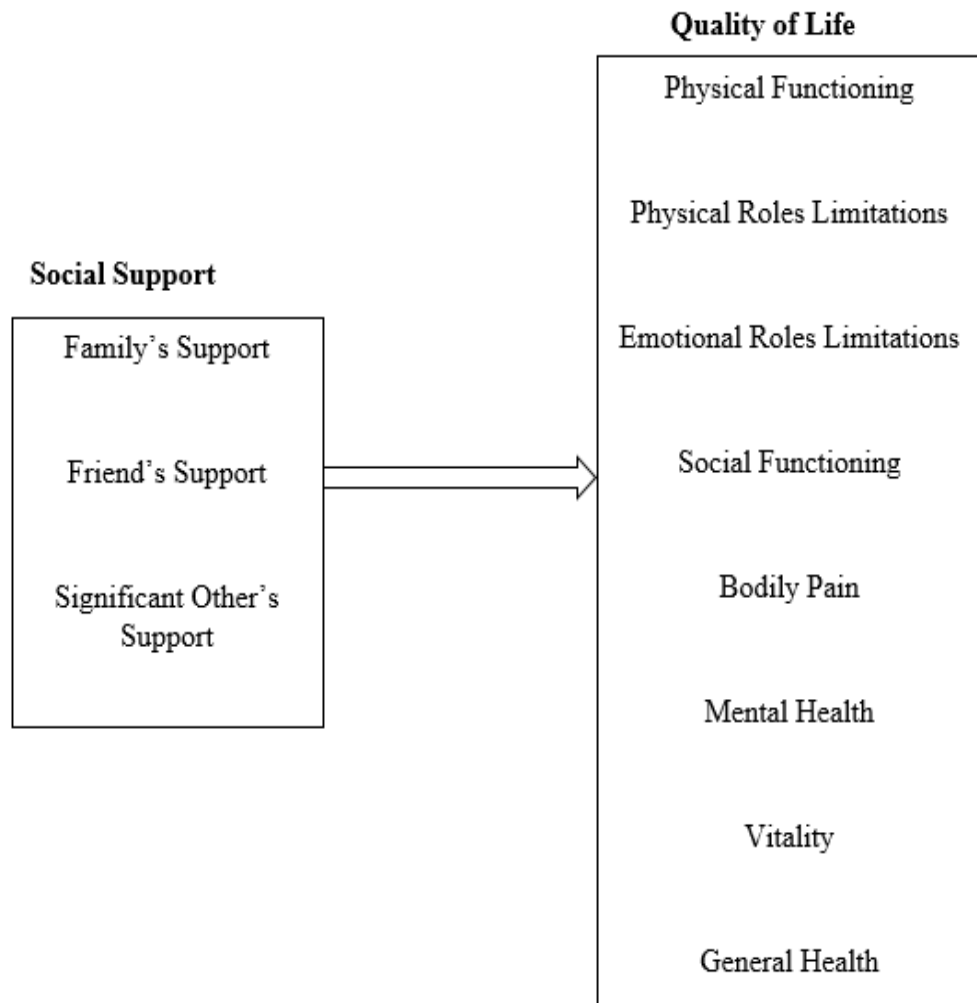


Figure 1: Perceived social support and quality of life

Author's Construct, 2017.

### Chapter Summary

The review has brought to the fore the importance of social support in health in general, especially to chronically ill patients battling with HIV/AIDS. Social support improves self-esteem, lead to medication adherence and the general wellbeing of patients with HIV/AIDS. There is a significant relationship between social support and quality of life among PLWHA. Most of these studies were done in western countries and outside the jurisdiction of Ghana. However, what the review was short of was the lack of studies on the effects of perceived social support on quality of life of PLWHA.

## **CHAPTER THREE**

### **RESEARCH METHODS**

#### **Introduction**

This chapter describes the procedures that were used in the study. A description of the research design, study area, population, sample and sampling procedure, research instrument, validity and reliability of the instrument, data collection and data analysis procedure are presented.

#### **Research Design**

According to Mugenda and Mugenda (1999), a descriptive survey design is designed to get pertinent and precise information concerning the current status of a problem with respect to one or more variables and where possible draw valid general conclusions from the facts discovered. Again, descriptive survey research is usually used as a pre-cursor to quantitative research designs (De Vos, Strydom, Fouchè & Delport, 2012). The study sought to determine perceived social support and its effect on quality of life among people living with HIV/AIDS in the Kumasi Metropolis. The descriptive cross-sectional survey design was employed for the study. The descriptive design is primarily concerned with finding out “what is”. Lokesh (1997) indicated that a descriptive design involves collecting data for the purpose of describing existing conditions at present by espousing the nature and degree of existence of the phenomenon. The study described the prevailing social support perceived by PLWHA. This makes the design

appropriate for the study. Gay (1992) was also of the view that the descriptive design determines and reports the way things are. The study was not intended to manipulate any variable but reported directly the existing social support perceived by PLWHA. The descriptive survey was used because according to Best and Khan (1995), descriptive research is concerned with the conditions or relationships that exist, such as determining the nature of prevailing conditions, practices and attitudes, opinions that are held, processes that are going on or trends that are developed by specifying the status quo, without manipulating any variables. Descriptive survey permits the gathering of information from a large sample of people relatively quickly and inexpensively (Ary, Jacobs & Rezavieh, 2002). Again, since the study intended to explore relationship between perceived social support and quality of life, the design selected was appropriate. It also established differences in gender in quality of life of PLWHA among others. Fraenkel and Wallen (2000) stated that “obtaining answers from a large group of people to a set of carefully designed and administered question, lies at the heart of survey research design” (p. 17).

One major advantage of the use of this design is that, variables and procedures are described as accurately and completely as possible so that the study can be replicated by other researchers. Again, a descriptive survey gives the researcher the freedom to select sample from the population under study and generalisations made from the selected sample (Ary, Jacobs, & Razavieh, 1990; Gay, 1992).

In spite of these strengths, the descriptive survey design has some weaknesses. It involves the conceptualization and operationalization of

variables in order to create measuring instruments. This poses a major threat to the validity and reliability of the instruments of the study because the attributes of some variables studied are not stable over time (Fraenkel & Wallen, 2000). In addition, such attributes are not always exhaustive and mutually exclusive to precision (Babbie, 1983).

Also, getting a sufficient number of questionnaires completed and returned so that meaningful analysis can be done is also another setback (Fraenkel & Wallen, 2000). However, the researcher opted for the descriptive survey as the most appropriate design for this study because of the variables involved and its enormous strengths in generalizing from a sample to a population. To mitigate these limitations, the researcher adopted numerous interventions in making sure the effects of these flaws were reduced to the minimum.

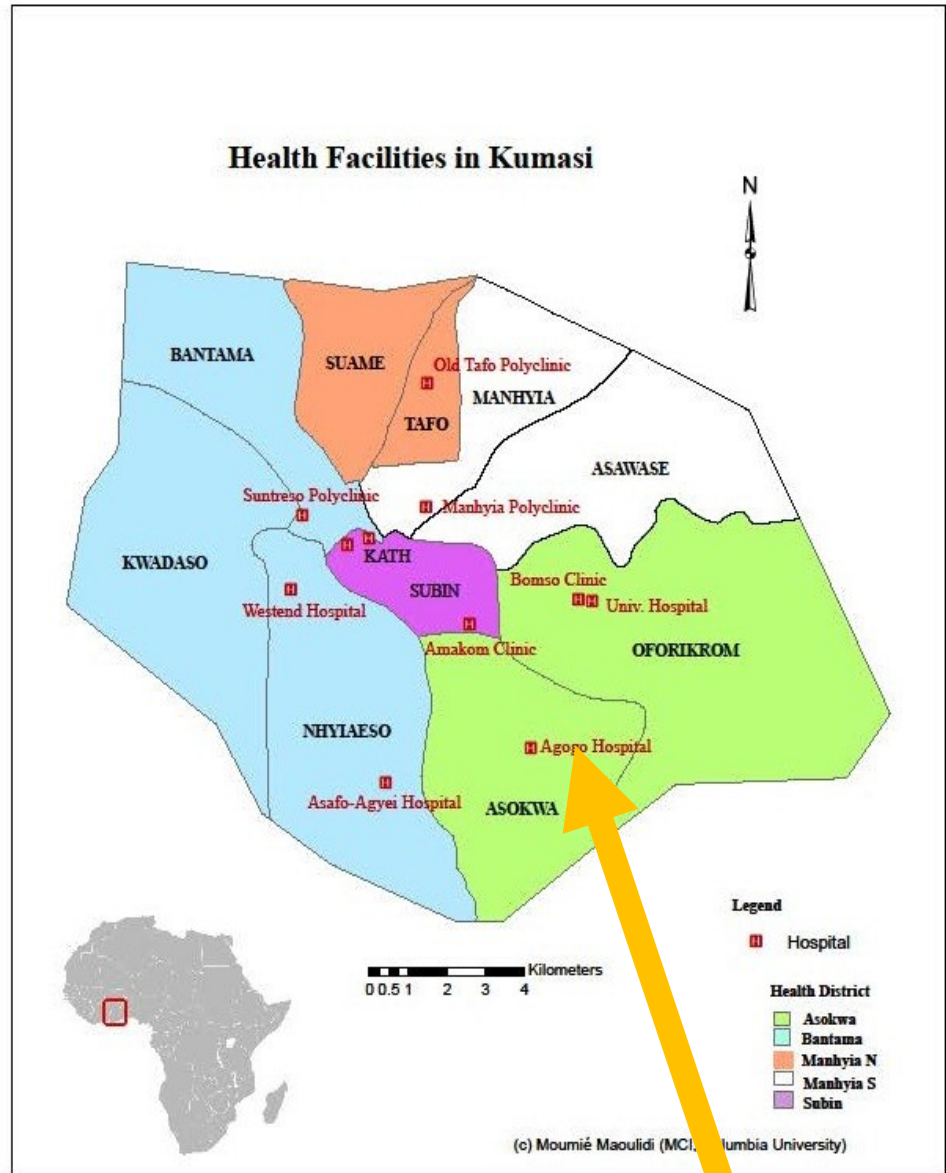
### **Study Area**

The study was conducted in the Kumasi Metropolis of the Ashanti Region of Ghana. Kumasi metropolis is the largest of the twenty – seven(27) political divisions(metropolis, municipality, districts) in Ashanti Region with an estimated population of 1,730,249 comprising 826,479 males and 903,770 females (Kumasi Metropolitan Assembly Census Report for 2015) and an annual growth rate of 5.4%. The metropolis is bounded in the north by Kwabre, Bosomtwe and Atwima Kwanwoma to the south; on the east is Ejisu – Juaben and Atwima is on the west of the metropolis. This population is distributed in about eighty (80) communities in the metropolis. The Metropolis has many health facilities such as the Komfo Anokye Teaching Hospital, Suntreso Government Hospital, KNUST Hospital and many others that serve



the health needs of people living in the metropolis. Specifically, the area of study was Kumasi South Hospital (KSH). It is the regional hospital in the Ashanti region. KSH is known by majority of people in Kumasi as 'Agogo Hospital' because it is located in the Atonsu Agogo (industrial hub of the metropolis) catchment area of the metropolis and serves the people of Asokwa, Ahinsan, Kaase, Atonsu, Esereso and Gyinyase and about fifty(50) other communities. It is a referral point for nearby hospitals, clinics and health centres like City Hospital, St Michael Hospital, and many others. It consists of 20 departments which include administration, chronic care unit(CCU), family planning, mother and child health unit, urology, maternity, DOTS center, records, laboratory, pharmacy, theatres, outpatient department, ear-nose-throat department, eye center, dental, regional Ebola center, regional public health laboratory, male and female wards, neonatal unit, and herbal medicine. The hospital has staff strength of about 600.

The CCU is the department where sexually transmitted infections are treated and more especially HIV clients are attended to, cared for, supported and treated. The unit started providing ART in 2005 and has 6,531 registered persons living with HIV as at 30<sup>th</sup> March, 2017. The unit consists of specially trained doctors, nurses, pharmacist, nutritionist, data entry clerks, HIV/AIDS trained counsellors and orderlies.



Study Area

Figure 2- Map of health facilities in Kumasi Metropolis

Source: Google map, 2017



Figure 3: Map of Kumasi Metropolis

Source: Google map, 2017

## Population

According to Polit and Hungler (1999), a study's population reflects the entire aggregate of cases that meet designated set of criteria. Also in the words of McMillan and Schumacher (2001), population is defined as a group of elements or cases, whether individuals, objects or events that conform to specific criteria in research. Additionally, Gravetter & Forzano, 2009 say that a target population can be defined as the large group to which a researcher intends to generalise the results of a study. A population refers to an entire group of individuals to whom findings of a study apply (Ary, Jacobs, Razaviah & Sorensen, 2006).

The population comprise people living with HIV/AIDS in the Kumasi Metropolis, males and females, young and old. Besides, the population comprise PLWHA who have other diseases such as hypertension, diabetes, hepatitis, tuberculosis and shingles. Aside that, there were married, unmarried, divorced, separated and widowed patients. As at 30<sup>th</sup> March, 2017, there were 6,531 registered number of PLWHA at (Chronic Care Unit) Kumasi South Hospital (Agogo Hospital). However, a discussion with the nurses at the Chronic Care Unit (where people living with HIV/AIDS are cared for) revealed that not all registered clients come for their medication. This was because some have expired (dead), stopped, some clients may even have more than one folder with different details, relocated or might even have changed their medication supply point. The accessible population of the people living with HIV/AIDS who regularly attended the hospital were 2,200. However, PLWHA who met the inclusion criteria were 1, 027.

### **Sample Size and Sampling Procedures**

A sample is a small subset of the total population of interest selected for a research work. Amedahe (2010) says that a sample refers to a group of people that a researcher carefully selects from a defined population. Sampling can be defined as the process of selecting a percentage of a population that can be said to be a representative of the entire population of interest to enable a researcher to gather data (Amedahe, 2000; Sarantakos, 2005).

A sample of 320 PLWHA was selected for the study. According to Krejcie and Morgan (1970), a population of 1,027 should select a sample of 278. The sample provided by the authors is the minimum number that must be selected and valid data must be collected from all the respondents for the sample to be representative of the population. This means that a unit drop in the data gathered could make the study invalid. Due to this, the sample size was increased from 278 to 320 since it will be better to have more sample size than under representation.

The purposive sampling technique was used to select the respondents who satisfied the selection criteria within the facility. The purposive sampling technique was adopted because the respondents were the main subjects that could provide the necessary information for the study. The medical records that were available at the unit were checked to determine their legibility to the study. Clients (patients) had booked for visitation so on the day of the visitation, their medical records were checked to know those to include and those to reject based on established criteria. The criteria used were as follows:

**Inclusion criteria**

- a. All respondents should be 18years and above.
- b. Has been on treatment for at least one year.
- c. Never defaulted on drugs

**Exclusion criteria**

- a. Severe psychosis or mental illness
- b. Refusal to participate or offer consent.
- c. Respondents less than 18 years
- d. Those who have defaulted
- e. Those whose duration of the disease is less than one year
- f. Those on anti-Tuberculosis treatment.

**Data Collection Instrument**

A questionnaire was used as an instrument in gathering data. Johnson and Christensen (2004) assert that, a questionnaire is a self – report data collection mechanism that each research participant fills out as part of a research study. The selection of a questionnaire as a research instrument is based on its features. Kothari (2004) was of the view that the questionnaire is appropriate for survey work and affords the respondents adequate time to give well thought out answers. To add to the already mentioned, questionnaires are easy to administer, friendly to complete and fast to score which saves time, human and financial resources. Unlike interviews, questionnaires are not affected by problems of ‘no- contacts’ (Ary, Jacobs, Razavieh & Sorensen, 2006; Sarantokos, 1998). Although the questionnaire as an instrument has much strength, it has a low response rate and also response bias is likely to occur (Creswell, 2012).

The questionnaire was used because it requires little time of the respondents, allows for a broad geographical sampling and can be used to cover a large sample size (Osuola 2001; Amedahe, 2002)

The instruments used to measure quality of life and perceived social support were adapted from the 36-Item Short Form Survey (SF-36) Questionnaire and Multidimensional Scale of Perceived Social Support (MPSS) respectively developed by Zimet, Dahlem, Zimet and Farley (1988) and John E. Ware in 1992.

### **The 36-Item Short Form Survey (SF-36)**

It is a 36 item questionnaire, with eight domains which include general health, limitations of activities, physical health problems, emotional health problems, social activities, pain, energy and emotions, mental health, vitality and general health. It has a Cronbach alpha of 0.94. Each subscale has its own unique responses. Some of the responses were on a 3-point Likert scale, others 4-point, 5-point and 6-point depending on the construct of quality of life it measures.

### **Multidimensional scale of perceived social support**

It is a 12-item self-report questionnaire that measures perceived social support. The responses to the questionnaires are in a form of very strongly disagree, strongly disagree, mildly disagree, neutral, mildly agree, strongly agree and very strongly agree. It is a summation score of the entire items.

### **Validity and Reliability**

The Short Form (SF)-36 questionnaires had an adopted reliability of 0.94. The multidimensional scale for social support also had an adopted reliability of 0.92 (Zimet, Dahlem, Zimet & Farley, 1988).

### Pre-testing Procedure

In order to validate the reliabilities of the various instruments, a pilot test was conducted at the Tema General Hospital, Accra. Fraenkel and Wallen (1996) assert that, the pre-test of questionnaires can review poorly worded questionnaires that are not understood by respondents, ambiguities and also can indicate whether the instructions to the respondents are clear. Pre- test can also be used to check the reliability and validity of an instrument. In all, 32 respondents were selected for the pilot test. The 32 respondents selected represent 10% of the actual sample size for the study. This was in line with Baker (1994) who stated that, a sample size of 10-20% of the sample size for the actual study is a reasonable number of participants to consider enrolling in a pilot. Participants selected for the pilot had also been diagnosed as HIV positive therefore respondents for the pilot test and the actual study can be said to possess the same characteristics. After the data has been collected, it was coded and processed with the use of SPSS. Cronbach's Alpha ( $\alpha$ ) was computed to determine the reliability coefficient. According to Fraenkel and Wallen (2000), a reliability coefficient of .7 or better is acceptable.

The Alpha value obtained was .74 (n of items = 47), therefore the instrument was judged to be reliable and acceptable for collecting useful data for the study. One item was deleted from the social support instrument because it was found to be ambiguous. In order to determine the reliability of the separate variables on the questionnaire, Cronbach Alpha was computed for each of the variables. Table 1 shows the reliability of the variables measured on the questionnaire.



Table 1-Reliability Coefficient for Each of the Variable

Sub-Scale	Reliability Coefficient ( $\alpha$ )
Health Questionnaire	.70
Perceived Social Support	.82
Reliability coefficient for sub-scales	.74

Source: Field data, 2017.

### The Empirical Model

A multiple linear regression was adopted. It was to regress friends support, significant others support and family support on quality of life. The objective of this procedure was to determine the effect of perceived social support on quality of life of PLWHA. This model has the following form:

$$QoL = \beta FS + \beta SOS + \beta FaS$$

Where

Quality of Life = QoL

Friends' Support = FS

Significant Others Support = SOS

Family Support = FaS

### Data Collection Procedures

Creswell (2009) instructs researchers to seek permission from authorities in charge of places where a research study is to be carried out. In line with what Creswell (2009) has instructed, I obtained an introductory letter from Department of Education and Psychology and sent to the Kumasi South Hospital (Agogo Hospital) to seek permission for data collection. Upon approval of the study protocol by the hospital administration, I again sought ethical clearance from University of Cape Coast Institutional Review Board

(IRB). Data was gathered by the researcher with the support of two research assistants who were trained by the researcher. Before the administration of the questionnaire, the respondents were made to know that information been sought was for academic purpose and that they were free to participate. The purpose of the study was communicated to them as well as their anonymity and confidentiality of information provided. Those who opted to participate were given informed consent forms to fill. Questionnaires were given out. Respondents were given enough time to complete the questionnaires. Some of the respondents had to take the questionnaire to their various homes and returned it to the facility at a later date. In all, out of 320 questionnaires that were administered, only 300 were returned with a valid percent of 93.8%.

### **Data Processing and Analysis**

According to Polit and Hungler (1999), data analysis is the systematic organisation and synthesis of research data, and the testing of a research hypothesis using those data. The analysis of data minimizes the quantum of information, identifying significant patterns, and builds a framework for communicating the essence of what the data discloses (Patton, 1999).

In order to address the research questions that guided the study, data obtained from the respondents were filtered to remove any irrelevant responses and coded after data were processed with the use of Statistical Product for Service Solution (SPSS version 21). A combination of descriptive and inferential statistics was used to analyse the data to provide results. The demographic characteristics of the respondents were analysed using percentages and frequencies. Table 2 provides a summary of how each research hypothesis was analysed.

Table 2-*Summary of Data Analysis*

Research Hypothesis	Data Analysis Technique
H <sub>A</sub> : There is a statistically significant difference in gender in quality of life of PLWHA.	Independent sample t-test
H <sub>A</sub> : There is a statistically significant relationship between perceived social support and quality of life.	Pearson Product Moment Correlation Coefficient
H <sub>A</sub> : There is a statistically significant difference in age groups of PLWHA in terms quality of life.	One-way Anova
H <sub>A</sub> : There is a statistically significant effect of perceived social support on quality of life of PLWHA.	Multiple Regression

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### **Introduction**

This chapter presents the results of the study and its discussion in order to come out with the findings to the perceived social support and its effects on quality of life among people living with HIV/AIDS in Kumasi Metropolis. Although 320 questionnaires were sent out, however, 300 of them were retrieved. In all, data was gathered from 300 respondents from the field and analysed with both descriptive and inferential statistics. The results are presented in order of the research questions formulated for the study. The first section in the chapter presents the demographic results of the respondents and the second section presents the main results of the research questions.

#### **Demographic Results**

This part of the results deals with the characteristics of the respondents required to appreciate the nature of respondents' from which data was collected. The following characteristics were considered: gender, age, and marital status, duration of condition, religion and level of education of the respondents. Data gathered from the respondents was analysed using frequency and percentage. The results are presented in Table 3.

Table 3-*Characteristics of Respondents*

Variable	Subscale	F	%
Gender	Male	104	34.7
	Female	196	65.3
Age (in years)	18-24	0	00.0
	25-31	37	12.8
	32-38	66	22.0
	39-45	66	22.0
	46-52	61	21.1
	53-59	26	9.0
	60-66	33	11.4
Marital status	Cohabitation	51	17.2
	Single	36	12.2
	Married	134	45.3
	Separated	14	4.7
	Divorced	35	11.8
	Widowed	26	8.8
Duration of condition (in years)	1-5	162	54.5
	6-10	118	39.7
	11-15	17	5.7
Religion	Christianity	260	86.7
	Islam	25	8.3
	African Traditionalist	4	1.3
	Others	11	3.7
Educational Level	None	38	12.7
	Primary	66	22
	JHS/MSLC	147	49
	Secondary/Vocational	41	13.7
	Tertiary	8	2.7

Source: Field data, 2017.

Table 3 presents the results of the characteristics of respondents. From Table 3, out of the 300 respondents, the majority, 196 (65.3%), of respondents

were female while the males were the least, 104 (34.7%). The dominance of the female might be due to their high vulnerability in getting infected with the disease as compared to the males. The results show unequal distribution of gender living with HIV/AIDS in the Metropolis.

Generally, respondents varied on the age ladder which implies a disperse respondents with knowledge and experience in relation to the condition (HIV/AIDS). It can be seen from Table 3 that, a large number of the respondents, 132 were between 32-45 years. This age group is relatively a vibrant group that could provide considerable human capital in driving productivity in any organisation or economy. Hence, if such efforts are wasted due to such a menace (HIV/AIDS), then, the country would have a lot to lose in terms of human capital. It can, however be seen that no respondent was between 18-24 years in the health facility that the study was conducted. It can be said that people are becoming aware of the condition, its mode of transmission, risk behaviours and they are therefore protecting themselves from been infected with it.

In relation to the respondents' marital status, majority of the respondents, 134 representing 45.3% were married. Also 17.2% of the respondents were cohabiting with their partners. The least 14(4.7%) among respondents had separated. Majority of the respondents being married create an implication for critical medical attention, especially for women who are likely to be pregnant. Prevention of mother to child transmission (PMTCT) adherence counselling must be intensified so as to ensure that mothers do not give birth to children with HIV. This means that immediate medical attention must be given to a married woman when she gets pregnant.

With regards to the duration of the condition, majority 162 (54.5%), of them had lived with the disease for a period of 1-5 years. This was followed by those 118 (39.7%) who had lived with the condition for 6-10 years. Only 17 (5.7%) of them had lived with the condition for 11-15 years. This descriptive statistics does not communicate a low prevalence rate of HIV/AIDS. It shows that efforts put in place by the government and relevant stakeholders in creating awareness and educating people have not been well understood. That notwithstanding, the number of people living with the condition in their early ages calls for both support of all kinds in order to make them live a long satisfied life so they can also contribute meaningfully to the growth and development of the economy.

The respondents' religious affiliations were determined. The results show that majority, 260 (86.7%) of the respondents were Christians. Muslims came second with 25 respondents representing 8.3%. Others on the other were 11 respondents which translate to 3.7%. Only 4 (1.3%) of the respondents were African Traditionalists. Although per this study, majority of respondents been Christian does not mean that they have lived a promiscuous lives since there are numerous mode of HIV transmission apart from sexual contact although majority of transmission occurs through sexual contact. That notwithstanding, it shows that, the Christian religious fraternity has a lot to do in educating their youth and young adults in order to spread much knowledge about the disease. This would help to draw the attention of the youth in any risky activity they get involved.

Finally, the educational level of the respondents' shows the category of respondents who were living with the condition. As it can be seen in Table 3,

majority, 147 (49%) of them had only attained junior high education. Only a few, 8 (2.7%), of them had attained tertiary education. This creates the impression that only people with low level of education are or can be infected with HIV. This must however be determined by empirical studies. The finding creates the implication that junior high students are not well educated on issues of HIV/AIDS or if educated at all, the efforts are not yielding much result. Notwithstanding that, social studies teachers have a greater responsibility in ensuring that they provide their learners with the necessary knowledge on such menace.

### **Main Results**

This part of the chapter presents the results and its discussion in order to address the research questions formulated. The results are presented under each research question that was formulated. The main variables of the study quality of life and social support are first presented before the research questions are addressed.

### **Quality of life**

Quality of life measures the extent to which PLWHA enjoys a satisfied life necessary to sustain their lives as if they had no disease.



Table 4-Results of Dependent Variable (Quality of Life)

Dimensions	Mean (%)	SD
Physical Functioning	95.03	13.49
Role Limitations Due to Physical Health	79.44	36.26
Role Limitations Due to Emotional Problem	13.78	30.03
Energy/Fatigue	74.40	14.92
Emotional Well-being	38.50	4.80
Social Functioning	36.04	21.63
Pain	20.07	26.71
General Health	47.20	9.12
Composite Score	50.56	5.87

Source: Field data, 2017.

Results on dependent variable (quality of life) are presented in Table 4. From the table it can be seen that a mean of 95.03% and a poor health system (low quality life) is seen in a mean score closer to 0%.

The physical functioning dimension measures the degree to which PLWHA are able to perform typical daily normal activities such as running, lifting heavy objects, moving tables, playing sports, climbing several flight of stairs, walking more than a mile and other activities as indicated on the survey health question (item 3-12). The results show that at a higher degree PLWHA are able to perform such activities (mean = 95.03, SD = 13.49). This shows that they are not limited in carrying out such activities. This could be as a result of the early periods in their disease. The results imply that, the more quality of life enjoyed by PLWHA indicates a better health system.

The next construct was “role limitations due to physical health”. The construct measures the degree to which PLWHA are able to perform their roles or functions as a result of their physical functioning. It covered issues such as amount of time spent on activities like going to the market, difficulty experienced in performing work, level of work accomplishment and the amount of activities PLWHA are able to perform. The mean percentage score, (79.44%), shows that at a high level PLWHA are able to perform their work activities without much difficulty.

The role limitations due to emotional health dimension also measures the degree to which PLWHA are able to perform influenced by their emotional dispositions such as feeling depressed or anxious. This dimension seems to significantly reduce the quality of life enjoyed by PLWHA. The mean percentage score (13.78%) was far below the average score (50%). This shows that the PLWHA were emotionally destabilised which might have highly affected their work functions.

The energy dimension measures the degree of vitality of PLWHA for the past one month before the study was conducted. Table 4 clearly shows that the PLWHA enjoyed high quality life (mean = 74.40%) of energy. This shows that within a period of 1-5 years in that condition, PLWHA are still able to exhibit high strength in performing various activities.

However, poor quality life was seen in the following dimensions: emotional well-being (mean = 38.50%, SD = 4.80%), social functioning (mean = 36.04%, SD = 21.63%), pain (mean 20.07%, SD = 26.71%) and general health (mean = 47.20%, SD = 9.12%). It can be argued that the poor emotional well-being was due to their nervousness, downheartedness and the

happiness that seem to have been taken from them. This emotional state seems to have been the dimension that communicates the rate at which people die from this condition.

Social functioning measures the extent to which physical health and emotional problems of PLWHA have been interfered with normal social activities with friends, family, neighbour or groups. Quality of life enjoyed by the PLWHA was not impressive as far as their social functioning (mean = 36.04, SD = 21.63) was concerned. It lied below the average quality of life of 50%. Pain (mean = 20.07, SD = 26.71) as a dimension of quality of life also seem to have reduced quality of life enjoyed by the PLWHA. It might have reduced their physical and emotional functioning. The general health dimension (mean = 47.20, SD = 9.12) was also low and below the average quality of life of 50%. This dimension measures the overall quality of life estimated by the respondents.

In sum, the quality of life variable (mean = 50.56, SD = 5.87) shows that, on the average PLWHA are to a medium extent enjoying life. This means that several activities and functions might be responsible for reducing their quality of life.

### **Social Support**

Social support measures the extent to which PLWHA obtain social support from key individuals in the society. These key individuals were friends, significant others and family. These variables were measured on a 7-point Likert scale. A mean of 5.0 to 7.0 shows a high degree of social support received by the respondents. A mean of 4.0 to 1.0 shows a low degree of social support received from these key individuals in the society. The three

construct such as friends, significant others and family form the perceived social support variable. Table 5 presents the results on the independent variables.

Table 5-Results of Independent Variable (Perceived Social Support)

Dimension	Mean	SD
Friends' Support	2.65	1.61
Significant Others Support	5.40	1.68
Family Support	3.49	1.67
Composite Score	3.88	1.31

Source: Field data, 2017.

Table 5 presents the results of independent variable (perceived social support). From the table, the results show that friends' support dimension (mean = 2.65, SD = 1.61) PLWHA mildly disagree to that fact that friends provided them with the support they needed in order to improve their condition. This could reduce their quality of life enjoyed. Similar affirmation (mean = 3.49, SD = 1.67) was made when they were asked if family provided them with the support that they needed. These individuals are quite closer to PLWHA and their supports are likely to go a long way in putting smiles on their faces. If these two agents (family and friends) reject PLWHA, then life is likely to be unbearable for them. However, the respondents mildly agreed (mean = 5.40, SD = 1.68) that significant others provided them with the support that they needed.

**Research Hypothesis One: H<sub>A</sub>: There is a statistical significant difference in gender in quality of life of PLWHA**

The hypothesis sought to establish whether there are gender differences in quality of life enjoyed by PLWHA. In order to determine the differences, an independent samples t-test was run. Table 6 presents the results that were obtained.

Table 6-*T-test Results of Differences in Quality of Life Based on Gender*

Gender	Mean	SD	t-value	df	P-Value	Eta <sup>2</sup>
Male	51.80	.59	2.720	298	.007*	0.02
Female	49.88	.41				

Source: Field data, 2017.  $p < 0.05$

In Table 6, the descriptive statistics show that there are differences in quality of life enjoyed by PLWHA. The mean score (51.80) of the males shows a higher quality of life as compared to the mean score (49.88) of the females. In order to test whether the differences were significant, an independent t-test was run. The Levene's test of equality shows that equal variances are assumed between the independent variables. This shows that the assumption of homoscedasticity was adhered to. The results show that there are statistically significant differences in quality of life in male (mean = 51.80, SD = .59) and female PLWHA (mean = 49.88, SD = .41),  $t(298) = 2.720$ ;  $p = .007$  (two-tailed). However, the magnitude of the differences in the means was very small (eta squared = .02). The null hypothesis was therefore rejected. Hence, it can be concluded that the male population of PLWHA enjoyed higher quality of life as compared to the female population of PLWHA. In order to determine the dimension that resulted in this difference, a t-test was

performed on each of the dimension of the dependent variable. The results that were obtained are presented in Table 7.

Table 7-T-test of differences in Each Dimension of Quality of Life

Variable	Gender	Mean	SD	t-value	df	P-value	Eta <sup>2</sup>
Physical	Male	96.35	10.27	1.229	298	.220	
Functioning	Female	94.34	14.90				
Role Limitation	Male	78.93	36.39	-.180	298	.857	
Due to Physical	Female	79.72	36.28				
Health							
Role Limitation	Male	14.74	29.31	.405	298	.686	
Due Emotional	Female	13.27	30.47				
Problem							
Energy/Fatigue	Male	77.79	13.14	2.901	298	.004*	0.03
	Female	72.60	15.51				
Emotional	Male	38.46	4.37	-.101	298	.920	
Well-being	Female	38.52	5.02				
Social	Male	40.69	21.38	2.743	298	.006*	0.02
Functioning	Female	33.57	21.41				
Pain	Male	19.76	26.18	-.145	298	.885	
	Female	20.23	27.05				
General Health	Male	47.69	7.68	.740	257.20	.460	
	Female	46.93	9.82				

Source: Field data, 2017.  $p < 0.05$

Source: Field data, 2017.

Table 7 illustrates the results of test of differences in each dimension of quality of life. The results portrays that in all the dimension that was analysed to determine the differences in the respondents' enjoyment of quality of life based on gender, only two dimensions showed significant differences. These are the energy and social functioning dimensions. In relation to the energy dimension, the results show a statistically significant difference in the quality of life in male (mean = 77.29, SD = 13.14) and female PLWHA (mean = 72.60, SD = 15.51),  $t(298) = 2.901$ ;  $p < .05$ , (two tailed). The magnitude of the differences in the means was very small (0.03). This shows that the male respondents of PLWHA have more energy than that of the female respondents. The female respondents of PLWHA seem to worn out faster than the males.

In relationship to the social functioning dimension, it was also found out that, there was a statistically significant difference in the quality of life in male (mean = 40.69, SD = 21.38) and female PLWHA (mean = 33.57, SD = 21.41),  $t(298) = 2.743$ ;  $p < .05$ , (two tailed). The magnitude of the differences in the means was very small (0.02). The result implies that emotional problems interfered more with female PLWHA normal social activities with family, friends, neighbours', or groups than that of the males. These two dimensions have contributed significantly in gender differences among PLWHA enjoying quality of life.

On the other hand females scored higher in some of the variables. For example, on the issue role limitation due to physical, the females were identified to have more role limitation due to physical health (M=79.72, SD=36.28, sig=.857) than males however, the results was not statistically significant (M=78.9, SD=36.28). Again, on emotional well-being, the females

scored higher ( $M=38.52$ ,  $SD=5.02$ ,  $Sig=.920$ ) than the males ( $M=38.46$ ,  $SD=4.37$ ) and the results were again not significant. Finally, females were again identified to experience more pain ( $M=20.23$ ,  $SD=27.05$ ,  $Sig=.885$ ) than males ( $M=19.76$ ,  $SD=26.18$ ).

**Research Hypothesis Two:  $H_A$ : There is a statistical significant relationship between perceived social support and quality of life**

The essence of this hypothesis was to determine if there is a statistical significant relationship between the dependent variable (quality of life) and the independent variable (social support). The independent variable is made up of friends' support, significant others support and family support. Pearson correlation was used for the analysis. The results are presented in Table 8.

Table 8-Relationship among Variables

Variable	1	2	3
1 Friends Support			
2 Significant Others Support	.337**		
3 Family Support	.582**	.465**	
4 Quality of Life (DV)	.256**	-.095	.129*

Source: Field data, 2017.  $p < .01$ ; \*\*  $p < .05$ \*

Table 8 presents the correlation among the variables. From the Table, it can be seen that friends support and significant others support were positively correlated ( $r = .337$ ) which was statistically significant ( $p < .01$ ). However, the correlation was weak. This means that as PLWHA receive friends support in order to improve their quality of life, they are likely to receive almost the same support with significant others. However, the degree to which friends support predicts significant others support is weak.



In addition, friends support also related positively with family support ( $r = .582$ ). The relationship between these two variables is moderate. This indicates that as PLWHA receive friends support, they are moderately likely to receive family support. Thus, when they receive support from friends such as counting on their friends, sharing their joys and sorrows with their friends and sharing their problems with their friends and it would also mean that family members would be providing emotional support and provide an avenue to discuss their problems.

The relationship between friends and the quality of life enjoyed by PLWHA was positive and weak ( $r = .256$ ) which was statistically significant ( $p < .01$ ). This shows that, the support of friends was useful in improving the quality of life of PLWHA. As the support of friends increases, the quality of life of PLWHA would also increase. However, the impact of friends support is weak.

Significant others and family support also showed a positive moderate relationship ( $r = .465$ ) which was statistically significant ( $p < .01$ ). This implies that, as special people provide support when PLWHA are in need, share their joys and sorrows and cares about their feelings, family members are also likely to provide their support such as providing emotional support and sharing their problems. Significant others support was negatively and weakly correlated with the quality of life enjoyed by PLWHA. The relationship is not significant.

Family support was also positively related with quality of life ( $r = .129$ ) which was statistically significant at 0.05. This shows that, as family

support for PLWHA increases, their quality of life is likely to increase. However, such impact is likely to be small.

It can be generally concluded that, the relationship between social support and quality of life is positively weak. This means that, as social support increases, quality of life would increase but the increase seen between these two variables would be small.

**Research Hypothesis Three: H<sub>A</sub>: There is a statistical significant difference in age groups of PLWHA in terms quality of life**

The essence of this hypothesis was to determine the age group of the respondents that enjoyed better quality of life. Quality of life data was collected with the use of the 36-health survey questionnaire. The independent variable was the various age groups. The data collected was analysed with one-way ANOVA. The results that were obtained are presented in Table 9-11. Table 9 presents the descriptive results.

*Table 9-Descriptive Results of Quality of Life*

Age Group	Mean	SD
18-24years	00.00	00.00
25-31years	48.9857	3.82077
32-38years	51.6616	6.43946
39-45years	51.3136	7.27521
46-52years	51.2728	4.18357
53-59years	47.6268	5.89542
60-66years	51.0314	4.94227

Source: Field data, 2017.

Table 9 shows seven age groups that the respondents were clustered. The descriptive results show a seeming difference in age group in terms of quality of life enjoyed. PLWHA within the age group of 32-38 years appears to enjoy higher quality of life as compared to the others. Those who appeared to enjoy the lowest quality of life are within the age group of 53-59 years. In order to determine if these differences are statistically significant, a one-way ANOVA was run. The results that were obtained are presented in Table 10.

Table 10-ANOVA Results of Age Differences in Quality of Life

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	463.669	5	92.734	2.803	.017
Within Groups	9361.905	283	33.081		
Total	9825.573	288			

Source: Field data, 2017.  $p < .01$ ; \*\*  $p < .05$ \*

A one-way between-groups analysis of variance was conducted to explore the impact of age on quality of life, as measured by the 36-health survey questionnaire. Subjects were divided into six groups according to their age (Group 1: 25-31years; Group 2: 32-38years; Group 3: 39-45years; Group 4: 46-52years; Group 5: 53-59years; Group 6: 60-66years). There was a statistical significant difference at  $p < .05$  level in quality of life enjoyed among the various age groups [ $F(5, 283) = 2.803, p = .017$ ]. Despite reaching statistical significance, the actual difference in mean scores between the groups was quite small. The effect size, calculated using eta squared, was .05. In order to determine the groups which showed the differences a Post-hoc comparisons using Tukey HSD test was run. The results are presented in Table 11.

Table 11-*Post-hoc Results of Differences in Quality of Life*

I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.
25-31years	32-38years	-2.67585	1.18123	.212
	39-45years	-2.32794	1.18123	.362
	46-52years	-2.28712	1.19849	.399
	53-59years	1.35894	1.47188	.940
	60-66years	-2.04569	1.37715	.674
32-38years	25-31years	2.67585	1.18123	.212
	39-45years	.34792	1.00123	.999
	46-52years	.38874	1.02154	.999
	53-59years	4.03479*	1.33175	.032**
	60-66years	.63017	1.22625	.996
39-45years	25-31years	2.32794	1.18123	.362
	32-38years	-.34792	1.00123	.999
	46-52years	.04082	1.02154	1.000
	53-59years	3.68687	1.33175	.066
	60-66years	.28225	1.22625	1.000
46-52years	25-31years	2.28712	1.19849	.399
	32-38years	-.38874	1.02154	.999
	39-45years	-.04082	1.02154	1.000
	53-59years	3.64605	1.34709	.077
	60-66years	.24143	1.24288	1.000
53-59years	25-31years	-1.35894	1.47188	.940
	32-38years	-4.03479*	1.33175	.032**
	39-45years	-3.68687	1.33175	.066
	46-52years	-3.64605	1.34709	.077
	60-66years	-3.40462	1.50824	.215
60-66years	25-31years	2.04569	1.37715	.674
	32-38years	-.63017	1.22625	.996
	39-45years	-.28225	1.22625	1.000
	46-52years	-.24143	1.24288	1.000
	53-59years	3.40462	1.50824	.215

Source: Field data, 2017.

Table 11 depicts the Post-hoc results of differences in quality of life. From the Table, the Post-hoc comparisons using the Tukey HSD test indicated that there was a significant difference between the ages of 32-38years and 53-59years ( $M=4.03$ ,  $SD=1.33$ ,  $Sig. =032$ ). It can be concluded that there are age differences in quality of life enjoyed by PLWHA. PLWHA within the ages of 32-38 years enjoyed higher quality of life than those within the age group of 53-59 years. This implies that PLWHA in the age group of 53-59 years had lesser physical functioning, higher role limitations due to physical health and emotional health, higher fatigue, poor emotional well-being, poor social functioning, higher pain and general poor health than those within the age group of 32-38 years.

**Research Hypothesis Four:  $H_A$ : There is a statistical significant effect of perceived social support on quality of life of PLWHA**

Research hypothesis four sought to determine the influence of perceived social support on respondents' quality of life. Data gathered was analysed with multiple linear regression. The results that were obtained are presented in Table 12.

Table 12-Regression Result of Influence of Perceived Social Support on Quality of Life

Variable	B	Beta	t-value	Sig value
1 (Constant)	53.163		46.338	.000
Friends Support	.989	.271	-3.885	.000
Significant Others Support	.075	.021	-.335	.738
Family Support	.138	.039	.525	.600
F	6.925			
Sig value	.000			
R <sup>2</sup>	.066			
Df	3, 292			

a. Dependent Variable: Quality of Life  $p<.01$ ; \*\*  $p<.05$ \*

Source: Field data, 2017.

### Model

$$\text{QoL} = 53.163 + .989\text{FS} + .075\text{SOS} + .138\text{FaS}$$

In the model, the F static (6.925) shows that the entire model is statistically significant ( $p = 0.00$ ). This shows that the model used to determine the perceived effect of social support on quality of life among PLWHA was effective.

Friends support, significant others support and family supports seem to influence the quality of life enjoyed by PLWHA. It can be observed that the independent variables have a positive influence on the dependent variable (QoL). These variables are friends support, significant others support and family support. This means that an increase in any of these independent variables would result in an increase in quality of life, thus a 1% increase in each of the three mentioned independent variables would affect work life balance by the value of the coefficient (.989, .075 and .138) respectively. However, friends support seems to have the highest positive impact on quality of life which was followed by family support. Significant others support seems to have the least influence on quality of life enjoyed by PLWHA. Again, it can be seen that among all the independent variables, it is only friends' support that significantly ( $p = .000$ ) influences quality of life. In sum, the R square of the model suggests that the independent variables explain 6.6% of the variation in the dependent variable (QoL). This implies that there are other factors that account for the 93.4% of quality of life.

It can be concluded that as far as enhancing the quality of life of PLWHA is concerned, friends support is the most important variable that must be taken into consideration. This is because it is the only variable that

significantly influenced quality of life enjoyed by PLWHA. This means that PLWHA might find it crucial when their friends provide them with all the support that they need. The respondents indicated in the survey that their friends really try to help them, they can count on their friends and they can share their problems with their friends. This assistance seem crucial to them which might have contributed to the results that were observed. It is, therefore, believed that as friends continue to provide such support systems to PLWHA, they are likely to feel accepted and useful in the society.

### **Discussion of Results**

This part of chapter relates the key findings to previous findings in order to establish conclusion on observed phenomenon.

The study found that there was a statistical significant difference in gender in terms of quality life. This finding is well rooted in studies (Nirmal, Divya, Dorairarj & Venkateswaran, 2008; Chandra, Satyanarayana, Satishchandra, Satish & Kumar, 2009; Briongos, Figuero, Luque, Martin, Sagrado, & Bouza, 2011; Abrefa-Gyan & Okundaye, 2016) conducted to identify such differences between gender and quality of life. These studies together with current study strongly support the fact that there are gender differences in quality of life enjoyed by PLWHA. Interestingly, all these studies support that the male population of PLWHA have higher quality of life as against the females. This seems to suggest that female populations of PLWHA are not well supported if social support actually has the tendency to influence general health. Even if they are well supported, it could mean that, the males receive it more than the females. One would expect females to receive more social support since they are regarded as the weaker vessels in the Ghanaian cultural context. However,

results produced from the analysis could make others put up arguments that females are able to contain more pain than males as shown by the results on the pain aspect of the quality of life questionnaire (SF-36) female respondents obtained even though, statistically, it was not significant. This notwithstanding, it is expected that the conditions of both genders are enhanced. From the results, I believe that to enhance the situation, more concerns and emphasis must be placed on female people living with HIV/AIDS in order to enhance their general health.

Despite these numerous findings that have pointed to the direction of higher quality of life for males, Perez et al. (2009) found that there is no gender difference in quality of life between males and females. It could be that, the respondents used by the researchers had adequate or equal treatment as far as improving their health condition was concerned. As far as this study and others are concerned, there are gender differences. Briongos et al. (2011) stressed that at best, gender differences in quality of health remain the same between genders but where there is a difference, women are likely to report lower quality of life.

The study also found that there is a positive relationship between perceived social support and quality of life. This finding has also been well grounded in literature (Yadav, 2010; Sanyang, 2011; Xiaoyan & Sato, 2011; Barutcu & Mert, 2013). Yadav (2010) revealed a positive relationship between perceived social support and quality of life of PLWHA. Sanyang (2011) found positive relationship between quality of life of HIV/AIDS patients and the social support they receive. Xiaoyan and Sato (2011) found out that there was a positive relationship between perceived social support and quality of life



among HIV patients. Barutcu and Mert (2013) indicated that the higher the perceived social support, the higher the quality of life of patients with chronic illness. This result is quite conclusive that perceived social support has a direct relationship with quality of life. This means that, as more social support is provided to PLWHA, their quality of life would also be enhanced. This study and majority of studies that confirm a direct relationship disconfirm the finding of Nazik et al. (2013). Nazik et al. (2013) indicated that there was no relationship between social support and quality of life among people living with HIV/AIDS. What might have accounted for these were the small sample size they used in their study and the use of the family subscale of perceived social support instead of the whole scale.

In terms of age group, the study affirms findings that younger people are likely to enjoy higher quality of life as against older people. Abrefa-Gyan and Okundaye (2016), for instance, found out that younger people are likely to have higher quality of life than older people. This might be as a result of the energy young people carry. Other things being equal, as one advances in age, s/he loses strength at a particular point in time. It was therefore not surprising when people in the age group of 32-38 years enjoyed higher quality of life as against those in the age group of 53-59 years. It could be seen from the results that those who were in their youthful age showed no differences in quality of life in relation to their ages.

Finally, the findings show that perceived social support has a positive influence on quality of life of PLWHA. Research works by Shumaker and Hill (1991) and Wallston, Alagna, DeVellis and DeVellis (1983), indicated that social support from family and friends has the tendency to boost self-esteem,

reducing depression and a means for providing assistance. Again, Ichikawa and Natpratan (2006) showed that social environment has an influence on quality of life among PLWHA. Göz, Karaoz, Goz, Ekiz, and Cetin (2007) indicated that social support has been cited to be beneficial to adjustment and disease management. Moreover, Malekahmadi et al. (2011) assert that social support, an element of psychosocial factor, has been confirmed by studies to have an impact on quality of life after undergoing any medical treatment. Finally, Costa, Sá, and Calheiros (2012) study showed that social support was a good predictor of health related quality of life among patients with multiple sclerosis. It is evident that social support is beneficial to PLWHA in positively influencing their health. Social support can therefore not be disregarded as far as the health of PLWHA is concerned. Much assistance given to them could boost their thought process so as not to over work themselves psychologically. However, this study further indicates that, social support coming from friends is very significant in improving quality of life of PLWHA. This shows how crucial and important the social support of friends is to PLWHA. This shows that it is critical if friends reject PLWHA. Even though family support positively influences quality of life of PLWHA, it was not found by this study to be a significant factor. It was expected that since family members stay with these individuals, their assistance or support should have been well appreciated or significant as against other factors. Studies can therefore concentrate in identifying why this remains so. As far as this study is concerned, support from friends remains very significant.

### **Revisiting the conceptual framework**

The framework suggests that social support influences quality of life of PLWHA. Thus, family support, friends support and significant other's support influence quality of life. In the first place, the study indicated a significant relationship between friends support and family support. This shows that, friends and family supports are good predictors of quality of life. The study indicated that there is a positive relationship between friends support and quality of life and family support and quality of life. This means that, as friends support and family support increases, the quality of life of PLWHA would also increase. However, the study indicated that such impact would not be high since it established a weak significant relationship between social support and quality of life.

More so, in the relapse analysis, the study found out that among the three distinct supports that seem to influence social support, friends support was significant. This was because of its high influence (predictive power) on quality of life of PLWHA. Based on the model and the study, friends cannot be taken for granted as far as the wellbeing of PLWHA is concerned. They form an integral part in sustaining the motivation of PLWHA to continue to live with the hope of not dying in the near future. Friends provided social and emotional solidarity which are deemed very important and crucial in improving quality of life. This assertion is well justified when the male PLWHA demonstrated a higher quality of life due to higher social functioning experienced as compared to their female counterparts. This difference observed was significant which shows that as friends provide adequate support to PLWHA, it would likely boost their quality of life. The model conclusively

provides evidence that social support, especially, friends' support, positively and significantly influence quality of life of PLWHA.

### **Chapter Summary**

The chapter presented the results and its discussion on the perceived social support and its effects on quality of life among PLWHA. The study revealed that the male PLWHA had a higher quality life than that of the female PLWHA. The differences in quality of life were as a result of energy and social functioning dimension of quality of life. Again, it was found out that, all the three dimensions of social support had a weak relationship with quality of life. However, friends support and family support had a positive relationship with quality of life. Significant others support had a negative relationship with quality of life. In addition, there was a statistically significant difference in the quality of life in relation to the age groups of the PLWHA. It was discovered that those in the age groups of 32-38 years enjoyed a higher quality of life as compared to those in the age group of 53-59 years. Finally, friends support was the only social support system which was found to positively influence quality of life. The influence of family support and significant others were not significant.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introduction

This chapter presents summary and findings of the study in order to address the research questions formulated on perceived social support and its effect on quality of life of people living with HIV/AIDS in the Kumasi Metropolis. Based on the findings, conclusions were drawn and recommendations were provided which enabled appropriate suggestions for further research.

#### Overview of the Study

The study examined the perceived social support and its effects on quality of life among people living with HIV/AIDS in Kumasi Metropolis. A descriptive cross sectional survey was adopted for the study. The purposive sampling technique was used to select the 320 participants out of a population of 1000 for the study. The 36-health survey questionnaire and multidimensional perceived social support questionnaire were used to collect the required data. Data was collected from 300 respondents which represent percentage of 93.8%.

Both descriptive statistics (Frequency, Percentages, Mean and Standard Deviation) and inferential statistics (Independent sample t-test, Pearson Product Moment Correlation, One-way Anova, and Multiple regressions) were used to analyse the data.

The specific objectives and hypotheses that were formulated and guided the study were:

1. investigate gender differences in quality of life of PLWHA,
2. explore the relationship between perceived social support and quality of life among PLWHA,
3. examine age difference in quality of life of PLWHA and to
4. examine the effect of perceived social support on quality of life among PLWHA.
5. H<sub>A</sub>: There is a statistical significant difference in gender in quality of life of PLWHA.
6. H<sub>A</sub>: There is a statistical significant relationship between perceived social support and quality of life.
7. H<sub>A</sub>: There is a statistical significant difference in age groups of PLWHA in terms quality of life.
8. H<sub>A</sub>: There is a statistical significant effect of perceived social support on quality of life of PLWHA.

### **Summary of the Findings**

After the analysis and discussion of the results, the following key findings were made.

### **Research Hypothesis One**

There is a statistical significant difference in gender in quality of life of PLWHA.

The male PLWHA had a higher quality life than that of the female PLWHA. The differences in the quality of life were as a result of energy and social functioning dimension of quality of life. The male population of

PLWHA were more energetic than the females. In terms of social functioning, the male PLWHA were enjoying higher quality of life as a result of better physical health which was not highly influenced by social activities such as visiting friends and relatives among others.

### **Research Hypothesis Two**

There is a statistical significant relationship between perceived social support and quality of life of patients in the Kumasi Metropolis

All the three dimensions of social support had a weak relationship with quality of life. However, friends support and family support had a positive relationship with quality of life. Significant others support had a negative relationship with quality of life.

### **Research Hypothesis Three**

There is a statistical significant difference in age groups of PLWHA in terms of quality of life

There was a statistical significant difference in the quality of life in relation to the age groups of the PLWHA. It was discovered that those in the age groups of 32-38 years enjoyed a higher quality of life as compared to those in the age group of 53-59 years.

### **Research Hypothesis Four**

There is a statistical significant effect of perceived social support on quality of life of PLWHA

Friends support was the only social support system which was found to positively influence quality of life. The influence of family support and significant others were not significant.

## Conclusions

Quality of life of PLWHA remains crucial as far as this study is concerned. This is because the study has shown that quality of health depends on several factors. The study shows that quality of life is gender sensitive as far as PLWHA is concerned. The higher quality of life enjoyed by the male population of PLWHA than that of the female communicates clearly the energy that the males have as against the females. This means that females are likely to face more health challenges which could reduce their visibility among friends and other family members. The positive relationship between social support (friend support and family support) and quality of life implies that as more and more assistance are received from these two groups, and then PLWHA would feel healthier than as seen now. This could be as a result of the close first point of call they (PLWHA) have with them (friends and family). The statistical significant difference in the ages of PLWHA shows that as they grow older, probably their situation gets worst, they are likely to be rejected by the families and friends. This might have resulted in those in the ages of 32-38 years being healthier than those in the ages of 53-59 years. Finally, the positive influence of friends support on quality of life shows that friends play significant roles in the lives of PLWHA. This shows that when friends' supports are extricated, PLWHA would suffer and might not improve in their health status. Hence, friends support remains one integral component in the survival of PLWHA.



## Recommendations

Based on the findings obtained and the conclusions reached, the following recommendations are made.

1. Since friends support was the only social support system which was found to positively influence quality of life. Friends should continually provide support to PLWHA to strengthen their quality of life. Friends should desist from isolating themselves from such people and should do everything they can to involve them in their socialization activities.
2. Male PLWHA also had a higher quality life than that of the female PLWHA. The differences in the quality of life were as a result of energy and social functioning dimension of quality of life. Therefore, the female PLWHA should be encouraged by the health practitioners to be socially active.
3. Medical health practitioners, clinical health psychologists and HIV/AIDS counselors should provide more counselling services to people who have had the disease for a long period of time especially from 50 years and above. This is to provide a better way of improving their quality of health.
4. The Ministry of health in collaboration with other important educational agencies should intensify sex education to female students and community members in order to strengthen awareness of HIV/AIDS. Also, more assistance should be provided to the females in order to strengthen their health conditions by friends and families through their interactions with them. This is to improve their emotional health which might strengthen their physical functioning.

5. In addition, friends and families should intensify their support systems offered to PLWHA.

### **Suggestions for Further Research**

The study examined the perceived social support and its effect on people living with HIV/AIDS in the Kumasi Metropolis. It employed the quantitative approach. Hence subsequent research efforts should be concentrated on:

1. Determining the influence of other demographic variables such as income and social status among others, on the impact of quality of life of people living with HIV/AIDS.
2. Providing understanding into the quality of life enjoyed by people living with HIV/AIDS through the use of other qualitative tools such as interview guides.
3. Extending the study to other regions in the country in order to validate the generalizability of the findings.
4. Soliciting the concerns of people living with HIV/AIDS on how they perceive their interaction with others without the condition.

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**APPENDICES**

**APPENDIX A**

**UNIVERSITY OF CAPE COAST**

**FACULTY OF EDUCATIONAL FOUNDATIONS**

**DEPARTMENT OF EDUCATION AND PSYCHOLOGY**

**QUESTIONNAIRES**

THESE QUESTIONNAIRES ARE TO BE COMPLETED BY PERSONS WHO RECEIVE TREATMENT AT THE KUMASI SOUTH HOSPITAL.

**“PERCEIVED SOCIAL SUPPORT AND ITS EFFECTS ON QUALITY OF LIFE OF PEOPLE LIVING WITH HIV/AIDS IN THE KUMASI METROPOLIS”**

Dear Respondent,

The above study is being conducted by Harris Ansah, a Master of Philosophy Clinical Health Psychology student of the above institution. The purpose of this work is to explore the relationship between perceived social support and its effect on quality of life.

There are two questionnaires attached for you to complete. Your responses will be helpful in investigating the relationship between perceived social support and its effect on quality of life. The questionnaires will take less than 15 minutes to complete.

Your participation in the study is voluntary, therefore you have the right to decline. The information you provide will be used for academic purposes and treated with utmost confidentiality. You can proceed to answer the questionnaires if you consent to participate. Thank you.

Yours sincerely,

Harris Ansah.

**SECTION A**

**Demographic Data**

Instruction: Please, indicate which of the responses apply to you by **ticking** in the box provided.

1. Gender:      Male [  ]      Female [  ]
  
2. Age: 18-24years [  ]    25-31years [  ]    32-38years [  ]    39-45years [  ]  
      ] 46-52years [  ]53-59years [  ] 60-66 years [  ]
  
3. Marital status:    Cohabitation [  ]    Single [  ]    Married [  ]  
      Separated [  ]Divorced [  ]      Widowed[  ]
  
4. Duration of the condition :    1-5 years [  ]    6-10 years [  ]    11-15  
      years [  ] 16-20years [  ]
  
5. Religion:    Christianity [  ]    Islam [  ]    African Traditionalist [  ]  
      Others [  ]
  
6. Educational level:    None [  ]    Primary [  ]    JHS/MSLC [  ]  
      Secondary/Vocational [  ]      Tertiary [  ]

## SECTION B

Please answer the questions of the **Health Survey** completely, honestly, and without interruptions.

**1. In general, would you say your health is:**

Excellent  Very Good  Good  Fair  Poor

**2. Compared to one year ago, how would you rate your health in general now?**

Much better now than one year ago

Somewhat better now than one year ago

About the same

Somewhat worse now than one year ago

Much worse than one year ago

The following items are about activities you might do during a typical day.

Does your health now limit you in these activities? If so, how much?

**3. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports.**

Yes, limited a lot  Yes, Limited a Little  No, Not Limited at all

**4. Moderate activities, such as moving a table, playing golf**

Yes, limited a lot  Yes, Limited a Little  No, Not Limited at all

**5. Lifting or carrying vegetables or groceries.**

Yes, limited a lot  Yes, Limited a Little  No, Not Limited at all

**6. Climbing several flights of stairs.**

Yes, limited a lot  Yes, Limited a Little  No,

Not Limited at all

**7. Climbing one flight of stairs**

Yes, limited a lot [ ] Yes, Limited a Little [ ] No,  
Not Limited at all [ ]

**8. Bending or kneeling or bowing**

Yes, limited a lot [ ] Yes, Limited a Little [ ] No,  
Not Limited at all [ ]

**9. Walking more than a mile**

Yes, limited a lot [ ] Yes, Limited a Little [ ] No,  
Not Limited at all [ ]

**10. Walking several blocks or houses.**

Yes, limited a lot [ ] Yes, Limited a Little [ ] No,  
Not Limited at all [ ]

**11. Walking one block or house**

Yes, limited a lot [ ] Yes, Limited a Little [ ] No, Not Limited at all [ ]

**12. Bathing or dressing yourself**

Yes, Limited a Lot [ ] Yes, Limited a Little [ ] No,  
Not Limited at all [ ]

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

**13. Cut down the amount of time you spend on other activities like going to the market**

Yes[ ] No[ ]

**14. Accomplished less than you would like**

Yes[ ] No [ ]

**15. Were limited in the kind of work or other activities**

Yes[ ] No[ ]

**16. Had difficulty performing the work or other activities (for example, it took extra effort)**

Yes[ ] No[ ]

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

**17. Cut down the amount of time you spent on work or other activities**

Yes[ ] No[ ]

**18. Accomplished less than you would like**

Yes[ ] No[ ]

**19. Didn't do work or other activities as carefully as usual.**

Yes [ ] No [ ]

**20. Emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?**

Not at all [ ] Slightly[ ] Moderately [ ] Severe [ ] Very Severe [ ]

**21. How much bodily pain have you had during the past 4 weeks?**

None [ ] Very Mild [ ] Mild [ ] Moderate [ ] Severe [ ] Very Severe [ ]

**22. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?**

Not at all [ ] A little bit [ ] Moderately [ ] Quite a bit [ ]

Extremely [ ]

These questions are about how you feel and how things have been with you during the last 4 weeks. For each question, please give the answer that comes closest to the way you have been feeling.

**23. Did you feel full of vim?**

- All of the time
- Most of the time
- A good Bit of the Time
- Some of the time
- A little bit of the time
- None of the Time

**24. Have you been a very nervous person?**

- All of the time
- Most of the time
- A good Bit of the Time
- Some of the time
- A little bit of the time
- None of the Time

**25. Have you felt so down that nothing could cheer you up?**

- All of the time
- Most of the time
- A good Bit of the time
- Some of the time
- A little bit of the time
- None of the time



**26. Have you felt calm and peaceful?**

- All of the time
- Most of the time
- A good Bit of the time
- Some of the time
- A little bit of the time
- None of the time

**27. Did you have a lot of energy?**

- All of the time
- Most of the time
- A good Bit of the time
- Some of the time
- A little bit of the time
- None of the time

**28. Have you felt downhearted and down?**

- All of the time
- Most of the time
- A good Bit of the time
- Some of the time
- A little bit of the time
- None of the time

**29. Did you feel worn out?**

- All of the time
- Most of the time
- A good Bit of the time

- Some of the time
- A little bit of the time
- None of the Time

**30. Have you been a happy person?**

- All of the time
- Most of the time
- A good Bit of the Time
- Some of the time
- A little bit of the time
- None of the Time

**31. Did you feel tired?**

- All of the time
- Most of the time
- A good Bit of the Time
- Some of the time
- A little bit of the time
- None of the Time

**32. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?**

- All of the time
- Most of the time
- Some of the time
- A little bit of the time
- None of the Time

**How true or false is each of the following statements for you?**

**33. I seem to get sick a little easier than other people**

Definitely true [ ] Mostly true [ ] Don't know [ ] Mostly false [ ]

Definitely false [ ]

**34. I am as healthy as anybody I know**

Definitely true [ ] Mostly true [ ] Don't know [ ] Mostly false [ ]

Definitely false [ ]

**35. I expect my health to get worse**

Definitely true [ ] Mostly true [ ] Don't know [ ] Mostly false [ ]

Definitely false [ ]

**36. My health is excellent**

Definitely true [ ] Mostly true [ ] Don't know [ ] Mostly false [ ]

Definitely false [ ]

**SECTION C**

Instructions: I am interested in how you feel about the following statements.

Read carefully and

Indicate how you feel about each statement.

Tick the “1” if you **Very Strongly Disagree**

Tick the “2” if you **Strongly Disagree**

Tick the “3” if you **Mildly Disagree**

Tick the “4” if you are **Neutral**

Tick the “5” if you **Mildly Agree**

Tick the “6” if you **Strongly Agree**

Tick the “7” if you **Very Strongly Agree**

STATEMENTS	1	2	3	4	5	6	7
1. There is a special person who is around when I am in need.							
2. There is a special person with whom I can share my joys and sorrows.							
3. My family really tries to help me.							
4. I get the emotional help and support I need from my family.							
5. I have a special person who is a real source of comfort to me.							
6. My friends really try to help me.							
7. I can count on my friends when things go wrong.							
8. I can talk about my problems with my family.							
9. I have friends with whom I can share my joys and sorrows.							
10. There is a special person in my life who cares about my feelings.							
11. I can talk about my problems with my friends							